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Marine Research Centre

Ministry of Fisheries, Agriculture and Marine Resources

H. White Waves

Malé

Republic of Maldives

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R.C. Anderson

#### FISHES OF THE MALDIVES

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#### **FOREWORD**

The Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO) is proud to be associated with this important document, which is a catalogue of the fishes of the Maldives. The message from the President of the Maldives reflects the importance His Excellency and the Government of Maldives accord to the subject.

The BOBP -IGO is committed to support the efforts of its member governments to promote fisheries management and sustainable development in the Bay of Bengal region. Essential to such a process is knowledge of the rich fish resources of the Maldives. This comprehensive and well-illustrated catalogue will be of great help to fishery scientists and officials, to fish exporters, students and fishermen themselves, besides serving as an invaluable reference book for researchers around the world.

We compliment the Marine Research Centre of the Ministry of Fisheries, Agriculture and Marine Resources of the Republic of Maldives, and the scientists, researchers and artists who made this highly informative publication possible. We are sure it will promote the cause of fisheries management and sustainable development in the Maldives, besides being a useful contribution to knowledge within and outside the Bay of Bengal region.

#### Dr Yugraj Singh Yadava

Director Bay of Bengal Programme Inter-Governmental Organisation Chennai - 600 018, India

#### **ACKNOWLEDGEMENTS**

The production of the volume was a major team effort by the staff of the Marine Research Centre. This work is largely based on the previous four Catalogues of the Fishes of The Maldives; the efforts of all contributors to those earlier volumes are gratefully acknowledged. That this volume has been produced at all is in large part the result of the work of Ibrahim Naeem, who sorted and arranged all specimens in the MRC collection, checked identifications, revised existing sheets, prepared fresh ones for new additions, and oversaw the production of this entire work. Ahmed Hafiz wrote most of the Dhivehi sections. Dr. R. Charles Anderson prepared much of the English text, and also provided the colour slides for the plates. All line drawings which were mainly done by Dr. M. Shiham Adam, Hussein Zahir, Ibrahim Faizan and Ahmed Arif for the previous edition have been used in this edition. Most revised line drawings and new additions used in this edition of the book have been done by Ibrahim Faizan. Ibrahim Nadheeh was responsible for layout and provided much editorial assistance; he and Fathimath Zeena carried out most of the word-processing. Other MRC staff members who have made contributions to this volume include Ajula Rasheed, Hussain Zahir and Hamid Shafeeu. Mr. Ahmed Shakir and Aishath Shahindha kindly assisted with the layout.

This book contains the most extensive and comprehensive Dhivehi text yet produced on the fishes of the Maldives. It is, therefore, most appropriate that His Excellency President Maumoon Abdul Gayyoom, who has had a profound interest in and concern for the fish and fisheries of our country, has provided a message in the national language-Dhivehi. We are most grateful to him.

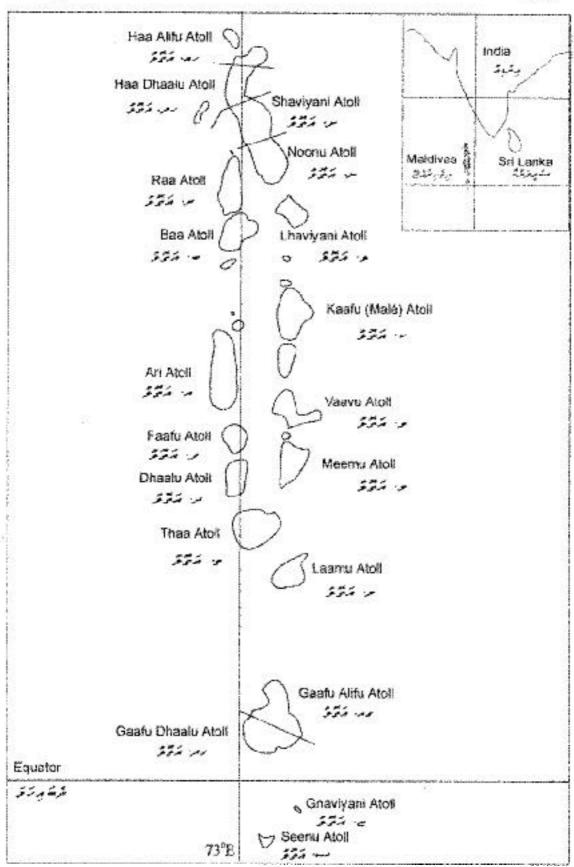
Former Minister of Fisheries, Agriculture and Marine Resources, Hon. Abdul Rasheed Hussein's encouragement and guidance led to this revised version. We are most grateful to him.

A special thanks to the Minister of Fisheries, Agriculture and Marine Resources, Hon. Abdullah Kamaludeen for his support to bring forth this volume.

The newly found BOBP Inter-Governmental Organisation generously offered to re-print this book with minor changes. We wish to express our sincere appreciation to BOBP-IGO, especially to Dr. Yugraj Singh Yadava, Director and his staff for their support and assistance.

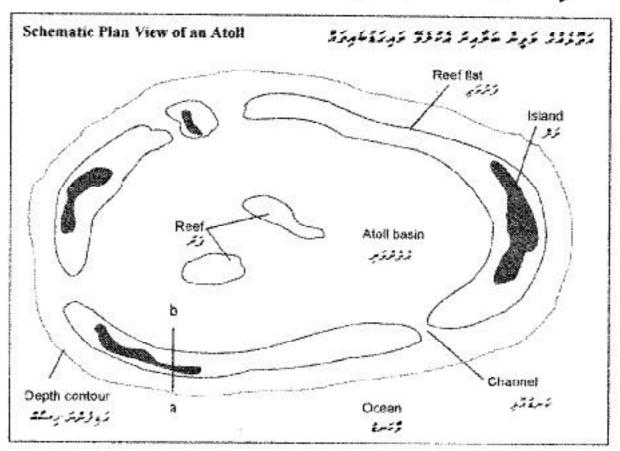
# Map of Maldives

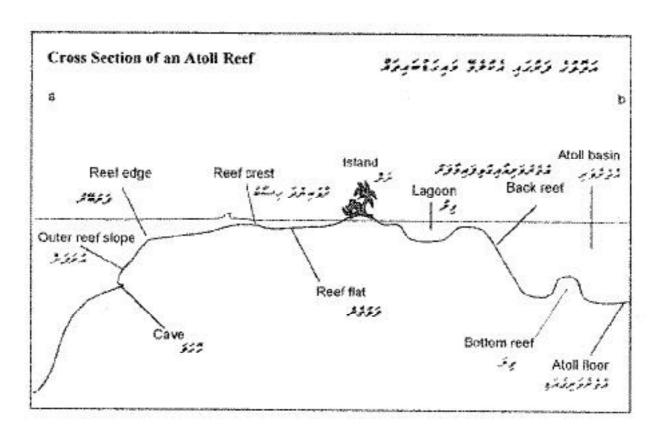
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## **Atoll Plan and Profile**

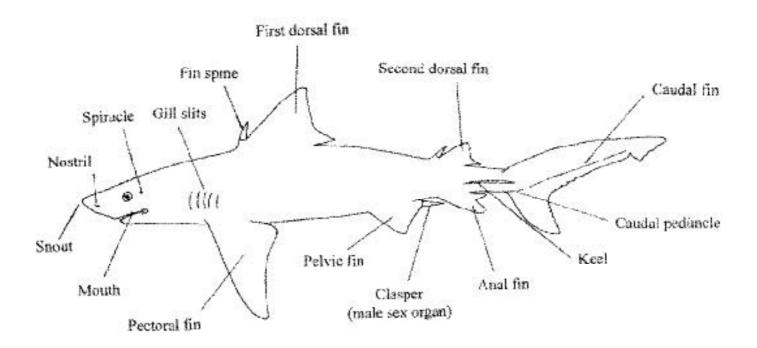
# مُمْرِّدُهِ وَهُوَهِ مُنْوَقِدٌ وَمِوْلَا وَمِوْلَا مُرْمِدُهُ



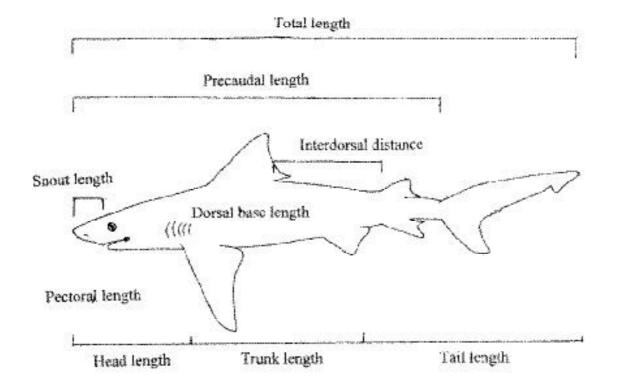


# **External Features of Fishes**

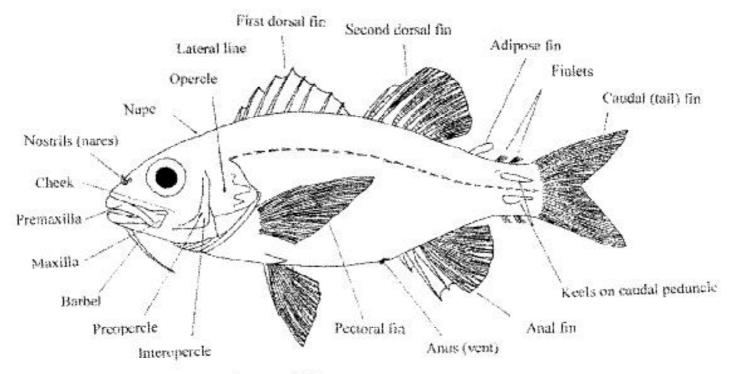
## Cartilaginous Fish - Shark (External Features)



## Cartilaginous Fish - Shark (Measurements)

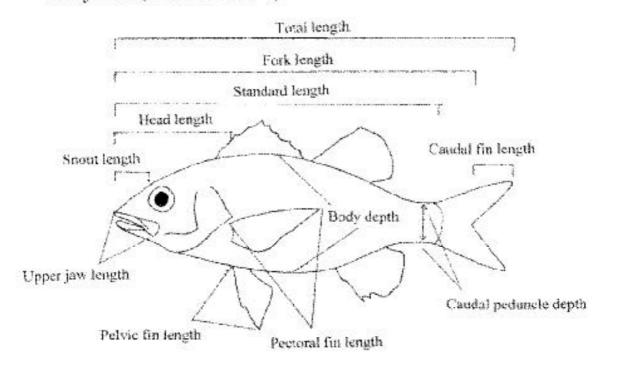


## Bony Fish (External Features)

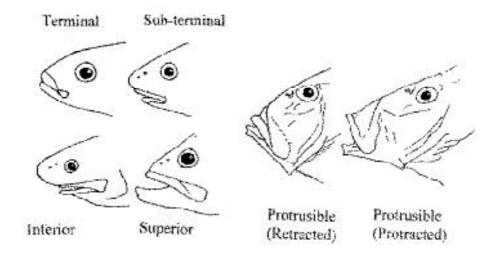


Pelvic (ventral) fin

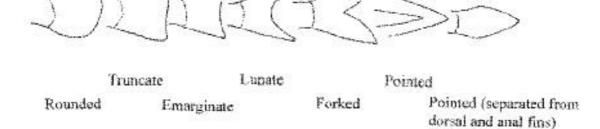
## Bony Fish (Measurements)



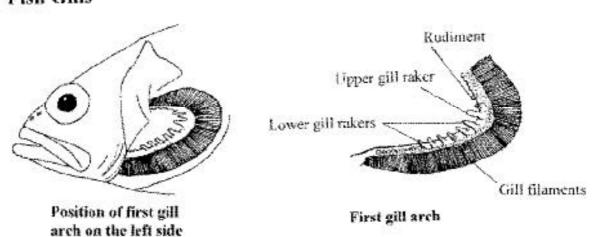
## Fish Mouth Types



## Fish Caudal Fin Types



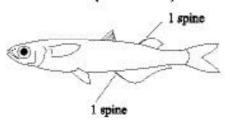
## Fish Gills



## Identification of families included in this book

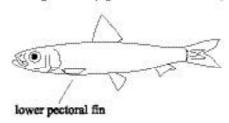
# Sharks

#### Atherinidae (Silversides)

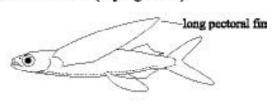


#### Clupeidae (Sprat and Sardines)

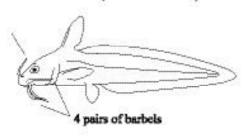
mouth inferior



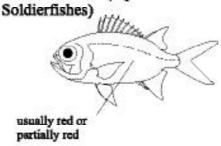
#### Exocoetidae (Flyingfishes)



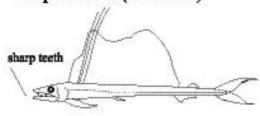
#### Plotosidae (Ecitail catfish)



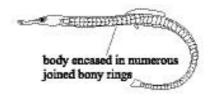
#### Holocentridae (Squirrelfishes and Soldierfishes)



#### Alepisauridae (Lancetfish)



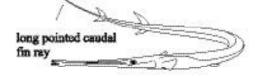
#### Syngnathidae (Pipefishes)



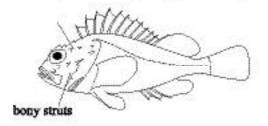
#### Antennariidae (Frog or Anglerfishes)



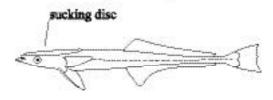
## Fistulariidae (Cornetfishes)



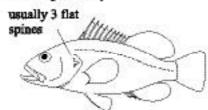
#### Scorpaenidae (Scorpionfishes)



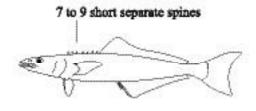
#### Echeneidae (Remoras)



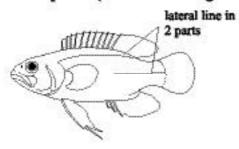
#### Serranidae (Groupers, Anthiids and Soapfishes)



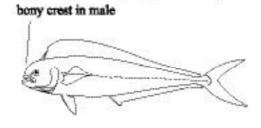
#### Rachycentridae (Cobia)



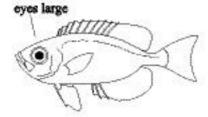
#### Plesiopidae (Comets or Longfins)



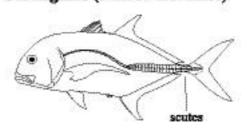
Coryphaenidae (Dolphinfishes)



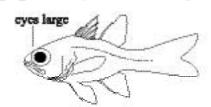
#### Priacanthidae (Bigeyes)



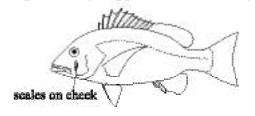
Carangidae (Jack or Trevallies)



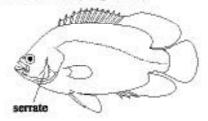
#### Apogonidae (Cardinalfishes)



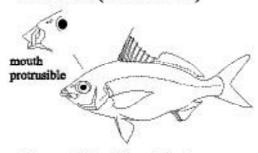
#### Lutjanidae (Snappers and Fusiliers)



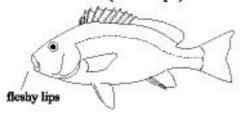
#### Lobotidae (Tripletail)



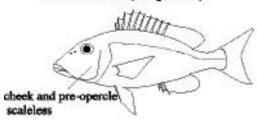
#### Gerreldae (Silver biddies)



#### Haemulidae (Sweetlips)



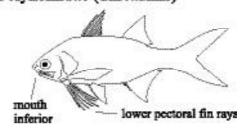
#### Lethrinidae (Emperors)



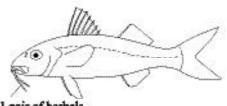
#### Nemipteridae (Threadfin breams)



#### Polynemidae (Threadfins)



#### Mullidae (Goatfishes)

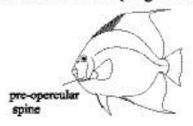


I pair of barbels at tip of chin

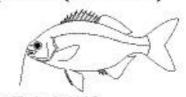
#### Chaetodontidae (Butterflyfishes)



#### Pomacanthidae (Angelfishes)



#### Kyphosidae (Rudderfishes)



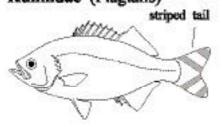
inciser-like hockey stick shaped teeth

#### Teraponidae (Grunters)

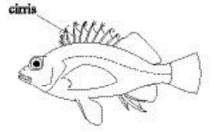


2 opercular spines

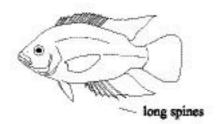
## Kuhiiidae (Flagtails)



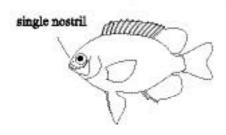
Cirrhitidae (Hawkfishes)



Cichlidae (Tilapia)

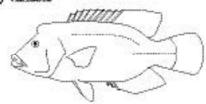


#### Pomacentridae (Damselfishes)

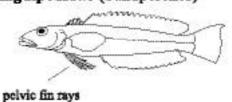


#### Labridae (Wrasses)

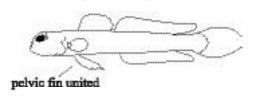
very variable



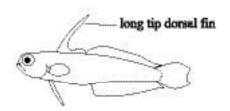
#### Pinguipedidae (Sandperches)



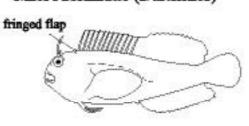
#### Blenniidae (Blennics)



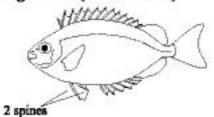
#### Gobiidae (Gobies)



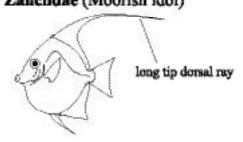
#### Microdesmidae (Dartfishes)



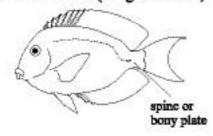
#### Siganidae (Rabbitfishes)



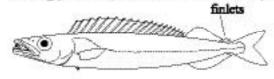
# Zanclidae (Moorish idol)



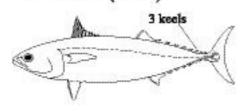
#### Acanthuridae (Surgeonfishes)



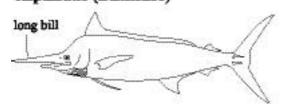
#### Gempylidae (Escolar and Oilfishes)



#### Scombridae (Tunas)



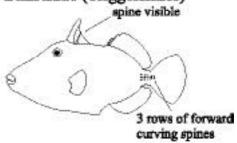
#### Xiphiidae (Billfishes)



#### Nomeidae (Driftfishes)



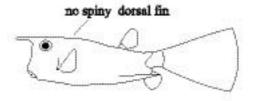
#### Balistidae (Triggerfishes)



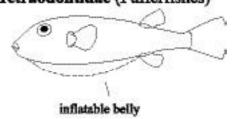
#### Monocanthidae (Filefishes)



#### Ostraciidae (Boxfishes)



#### Tetraodontidae (Pufferfishes)



#### INTRODUCTION

The first edition of the Fishes of the Maldives was published in 1997, which was a compilation of four earlier Catalogues of the Fishes of the Maldives. Work on the first Catalogue started in 1986. At that time the first small volume of fishes was produced by the Marine Research Section of the then Ministry of Fisheries. Subsequently, 3 more volumes were produced, each being released on Fisherman's Day. Since publication of the first edition, this publication has been used extensively throughout Maldives and therefore there was a need to review and update the information so as to produce a more complete version.

The previous four issues of the Catalogue each covered about 70 species, with 285 species being covered in all. This volume details a total of 370 species. Different species of one family were sometimes included in more than one edition of the earlier Catalogues. All fishes of the same family are now listed together. In addition, the order of presentation has been changed to follow the latest scientific findings (Nelson, 1994). As a result, the snappers and fusiliers, which had been treated as separate families in earlier editions, are treated here as a single family (Lutjanidae) with the fusiliers being relegated to subfamily status (Caesionidae). Another family for which it is useful to know the genera is the enormous grouper family (Serranidae), which includes the fairy basslets (Anthiinae), the groupers themselves (Epinephelinea, tribe Epinephelini), and the soap fishes (tribes Diploprionini and Grammistini). Within families, species are listed alphabetically, irrespective of subfamilies.

A major aim of this volume is to present the information in Dhivehi to the local audience that does not have access to more specialized literature. In particular, it should be of interest to students of fisheries science and related subjects. It also aims to aid all users in identification of commercial fish species. To this end, some emphasis has been placed on major commercial groups such as the groupers, jacks, snappers and sharks. However, records are only included here when a specimen (or photograph of a large specimen, denoted by a prefix 'P' to the specimen number) is held at MRC. Since the MRC collection is still far from complete, there are some omissions even within these groups.

The known fish fauna of the Maldives now stands at some 1100 species. This is double the number of species that was known from the Maldives prior to the formation of the Marine Research Section in 1984. This leap in knowledge reflects the great amount of work carried out by the Centre, some of it in collaboration with the World's foremost authority on tropical reef fishes, Dr John E. Randall of the Bishop Museum, Hawaii. There are undoubtedly many more species to be found in Maldivian waters, and the grand total is likely to exceed 1500 species.

Despite the rich fish fauna, Maldives has very few endemic species (*i.e.* ones that are found here and nowhere else). Even the so-called Maldive Anemonefish, *Amphiprion nigripes* is found in the Lakshadweep and Sri Lanka in addition to Maldives. One species listed here that is so far known only from the Maldives is the tiny Maldive Blenny, *Ecsenius minutus*.

It may seem strange that so few endemic fishes are found in Maldives, when some species appear to move no more than few meters or even centimetres throughout there adult lives. The answer to this riddle is to be found in the larval stage. All reef fishes have what has been called a two-phase life history; adult and larva. While reef fishes maybe bound to the coral homes, the larvae are planktonic and drift with the currents.

The larvae of most species drift in the open ocean for at least one week, and in some cases for several months. During this time, they can be carried for hundreds, if not thousands of miles by the ocean currents. As a result, the majority of Maldivian reef fishes (probably about 80 per cent) have very wide distributions that cover the entire Indo-west Pacific or Indo-Pacific realm.

The Indian and Pacific Ocean are connected in tropical latitudes through the Indonesian Archipelago and around the north of Australia. Therefore, the larvae of reef fishes from the two Oceans can mix. In contrast, the tropical Atlantic Ocean is isolated from the warm waters of both the Indian and Pacific by wide expanses of cold waters. Thus, the tropical fish fauna of the Indian Ocean and Pacific Ocean are very similar, while that of the Atlantic is very distinct.

Interestingly, the latest research on both larval behaviour and Indo-Pacific reef fish taxonomy is showing that things may be more complicated than this. During the last Ice Age, when sea levels were approximately 120-130m (400ft) lower than they are today, the tropical Indian and Pacific Oceans were nearly separated. As a result, fish populations in the two oceans started to diverge. Today most ichthyologists agree that many Indo-Pacific fish species show differences between their Indian and Pacific Ocean populations. In most cases, these have been considered to be 'population' differences within a single species. More detailed studies are now being carried out (including studies of genetics and of the areas of population mixing in the eastern Indian Ocean). It is becoming clear that some fish that were considered widespread, throughout the Indo-Pacific are actually two distinct species.

In addition, recent studies on fish larvae have shown that they are not helpless in the face of Ocean currents as was earlier believed. Indeed, they can swim against the current towards a reef for many hours and many tens of kilometres. As such, there is basis for considering that apparently small differences between regional populations of widespread species do have taxonomic significance. It is therefore likely that further studies may reveal that the Maldives does have an even more unique fish fauna than the current low number of endemics would suggest.

Maldivian fishermen favour tunas and continue to exploit these offshore fishes, as they have done for centuries. Until relatively recently the only reef fishes caught in any quantity were the small live baitfish which are needed for the pole and line tuna fishery. During the last decade this situation has changed dramatically. Local demand for the reef fish has grown, in line with the growth of resorts and of Male'. At the same time, export markets have boomed.

Reef shark stocks are now being fished heavily, as a result of the high price paid for shark fins. However, reef sharks also have real economic value as attractions for the tourist divers. It has been estimated that in 1992 divers spent US\$ 2300000 just on visits to specific shark watching dive sites. As tourist arrivals increase, the potential earnings from reef sharks should increase too, but only as long as there are sharks to be seen.

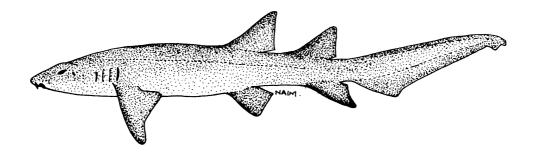
An export fishery for live grouper started in 1993. This fishery too is already showing signs of overfishing, and it is possible that it could collapse within a few years. Such a collapse would result in enormous economic loss to the country. The main markets for both shark fins and groupers are in the Chinese emporia of East Asia; in Singapore, Taiwan, Hong Kong and China itself. The economies of all of these counties are booming. As a direct result, demand for luxury goods and foods is increasing enormously.

The Maldives has gained a reputation among divers and snorkellers as an oasis for large fishes. In many other tropical countries sharks, groupers and other reef fishes have already been overfished. This has given Maldivian tourism a competitive edge in the diving market. It would be ironic indeed if the Maldivian reef sharks and groupers were fished too near extinction just as the Maldivian tourist industry is reaching maturity.

We live at a pivotal time, when more is being discovered about the natural world than ever before, but at the same time more is being lost than ever before. Without knowing what is here, it is almost impossible to initiate meaningful management and conservation activities. This applies particularly to marine organisms such as fish, which for too many people are "out of sight, out of mind." It is hoped that this volume will in a very small way contribute both towards the understanding of a key component of the Maldivian marine environment, and its conservation.

\* \* \*

#### Nebrius ferrugineus (Lesson, 1830)



English Name: Tawny nurse shark Family: GINGLYMOSTOMATIDAE

Local Name: Nidhan miyaru Order: Orectolobiformes

Size: Max. just over 3 m

**Distinctive Characters:** Body without ridges. Caudal fin about 30 per cent of total length. Pectoral, dorsal and anal fins with angular apices. Teeth compressed, with moderate central cusp and 4 - 6 smaller cusps on sides.

Colour: Brown, from tan to dark grey-brown, Paler below.

**Habitat and Biology:** Occurs in shallow waters from the inter-tidal zone to a depth of at least 70 m. Demersal on coral and rocky reefs, in lagoons and on sand flats. Feeds on a variety of bottom invertebrates, corals, and small fishes. Mainly nocturnal, often resting in caves or under overhangs by day. Ovoviviparous; number of young at least 4 per uterus.

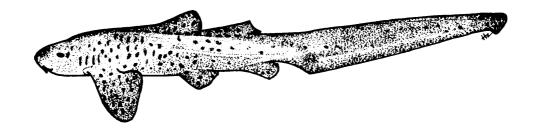
**Distribution:** Indo-Pacific

**Remarks:** Four individuals of *Nebrius ferrugineus* (of length 134-226 cm in total length) were taken by hand line and longline by R.V. "Farumas" during the reef fish resources survey (Anderson and Ahmed, 1993, p.55). This is a tough and hardy shark that readily survives in captivity. *N. concolor* Ruppell, 1837 is a synonym.

# ת בל יית כות ה

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#### Stegostoma fasciatum (Hermann, 1783)



English Name: Zebra shark, Variegated shark

**Local Name:** Faana miyaru **Order:** Orectolobiformes

**Size:** To 3.5 m or more

**Family:** STEGOSTOMATIDAE

**Distinctive Characters:** Long caudal fin, about half the total length. Small barbells on either side of small mouth. First dorsal set well back and much larger than second. Prominent ridges on sides of body.

Colour: Adults pale brown with dark spots. Juveniles dark brown with vertical yellow stripes.

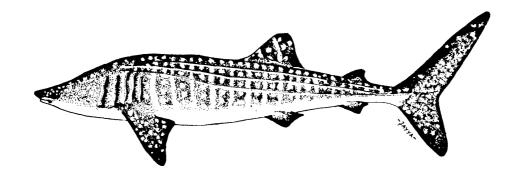
**Habitat and Biology:** Found on coral reefs. A rather sluggish shark. Strictly nocturnal; feeds on molluscs, sea snakes, crustaceans and fish. Oviparous.

**Distribution:** Indo-West Pacific

**Remarks:** Stegostoma fasciatum is not a very common shark in Maldives, but is occasionally seen resting on the bottom by divers. This shark is unaggressive when approached under water. Several individuals were taken by longline from R.V. "Farumas" (Anderson and Ahmed, 1993, p.55). Previously recorded as S. varium in the Catalogue of Fishes of the Maldives Vol. 3, page 342.

נות בות ה צות בות את

#### Rhincodon typus Smith, 1828



English Name : Whale SharkFamily :RHINCODONTIDAELocal Name :FehurihiOrder :Orectolobiformes

Size: Rare above 12 m; possible to 21 m

**Distinctive Characters:** With its huge size and distinctive spotting, whale shark cannot be confused with any other species. Very wide, nearly terminal mouth with numberous minute teeth. Very broad head.

Colour: Dark above with numerous narrow whitish bars and rows of spots, pale below.

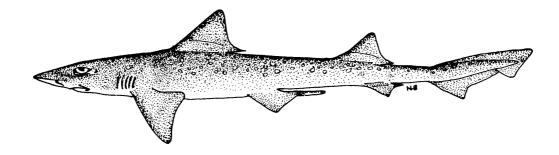
**Habitat and Biology:** A pelagic filter feeder, occurring singly or in small schools, often near the surface. Feeds mainly on plankton, sometimes on small pelagic crustaceans or small schooling fishes.

**Distribution:** Circumtropical.

**Remarks:** *Rhincodon typus* is the largest living fish. Despite its large size, it is not a dangerous species. It is sometimes seen by divers, normally during southwest monsoon off the east coast and during the northeast monsoon off the west coast. No specimens have been collected, or likely to be collected, but this species have been seen by Fisheries staff occasionally. The whale shark being rare and endangered, is a protected species in the Maldives.

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#### Mustelus manazo Bleeker, 1854



**English Name :** Starspotted smooth-hound shark **Family :** TRIAKIDAE **Local Name :** Hon'du miyaru **Order :** Carcharhiniformes

Size: Max. about 1.2 m

**Distinctive Characters:** A small, slender shark with head somewhat flattened. Nasal flaps not reaching mouth. No nasal grooves. Mouth broadly angular. First dorsal fin large with origin in front of rear margin of pectorals. Second dorsal fin much larger than anal. Ridge between dorsals.

Colour: Uniform grey or grey-brown above, light below. A series of small white spots on sides.

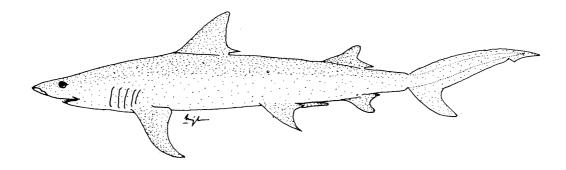
**Habitat and Biology:** Bottom dwelling in continental waters. Commonly close inshore especially on mud and sandy bottoms. Feeds on small bottom fishes, molluscs and crustaceans. Ovoviviparous; number of young 1 to 22; increasing markedly with size of mother.

**Distribution:** Indian Ocean to Western North Pacific.

**Remarks:** *Mustelus manazo* in the Maldives is found on outer atoll slopes in depths of 100-200 m. Specimens here lack the white spots typical of this species in other locations. Previously misidentified as *M. mosis*, in the Catalogue of Fishes of the Maldives, Vol. 3, page 350.

#### האר האר האר אל האר של האר אל

#### Hemipristis elongatus (Klunzinger, 1871)



English Name :Snaggletooth sharkFamily :HEMIGALEIDAELocal Name :Dhaiy bulhi miyaruOrder :CarcharhiniformesSize :To at least 2.3 m; possibly to 2.4 mSpecimen : MRS/P0376/92

**Distinctive Characters:** A medium-sized shark with blunt, rounded snout. Teeth absent at symphysis (midline) of lower jaw. Lower teeth near symphysis long and strongly hooked. Upper teeth broad and curved with both edges serrated. Gill opening long, the longest over three times eye length.

Colour: Grey; paler below.

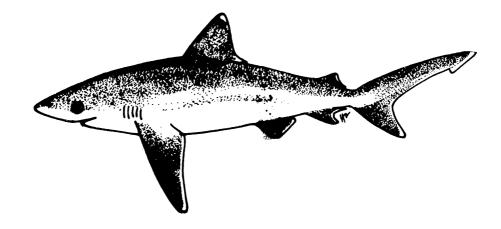
**Habitat and Biology:** Occurs in coastal waters at depths up to 30 m. Feeds on inshore pelagic and bottom fishes. Viviparous with a yolk-sac placenta; 6 –8 young per litter.

**Distribution:** Indo-West Pacific

**Remarks:** *Hemipristis elongatus* appears to be rare in Maldives. The only known record so far is a set of jaws seen on a R. Maduvari shark-netting dhoni operating in Haa Alifu Atoll. The jaws were saved by one of the crew only because he had never seen this species before. This also appears to have been the first record from an oceanic island.

#### ת 0, כ כ ת כ כ בת 0, בי פער נות מ ת ת

#### Carcharhinus albimarginatus (Rüppell, 1837)



English Name: Silvertip shark

Local Name: Kattafulhi miyaru

Order: Carcharhiniformes

Size: Max. 3 m

Specimen: MRS/P0311/88

**Distinctive Characters:** snout moderately long and broadly rounded. Upper teeth broadly triangular. Second dorsal fin with a base less than twice height. Ridge between dorsal fins.

**Colour:** Grey above, pale below. First dorsal, pectoral, pelvic and caudal fins with extremely conspicuous white tips and posterior margins.

**Habitat and Biology:** Occurs inshore and offshore from the surface to a depth of 800 m. Feeds on both bottom and pelagic fish, including rays and cephalopods. Viviparous, with a yolk-sac placenta; number of young 1 to 11 per litter, often 5 to 6.

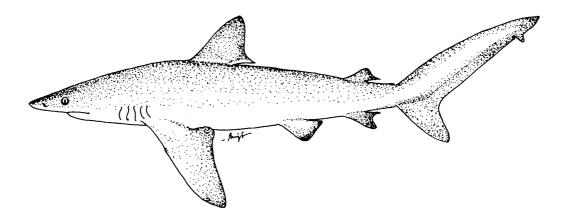
**Distribution:** Tropical Indo-Pacific.

**Remarks:** Carcharhinus albimarginatus is said to be very aggressive and individuals often have evidence of combat scars. The shark is potentially dangerous to people. Rarely seen by divers in the Maldives, although there have been regular sightings at two sites in Ari Atoll.

מתש ציע כות מ

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#### Carcharhinus altimus (Springer, 1950)



English Name :Bignose sharkFamily :CARCHARHINIDAELocal Name :Mendhan miyaruOrder :CarcharhiniformesSize :Max. 3 mSpecimen :MRS/P03801/92

**Distinctive Characters:** A large, fairly slender shark. Snout moderately long and bluntly pointed to rounded. Upper teeth serrated, broadly triangular and erect in front of mouth. Lower teeth narrow and finely serrated. A distinct skin ridge between dorsal fins. First dorsal fin moderately large and falcate, with origin over inner margins of pectoral fins. Pectoral fins long and not strongly falcate.

Colour: Grey, white below. Fin tips dusky (except pelvic). White markings on flank inconspicuous.

**Habitat and Biology:** A common offshore, bottom dwelling shark usually found in deeper water near the edge of the continental and insular shelves in depths between 90 to 430 m. Feeds mainly on fishes, other sharks, sting rays and cuttle fish. Viviparous, number of young per litter 3 to 15.

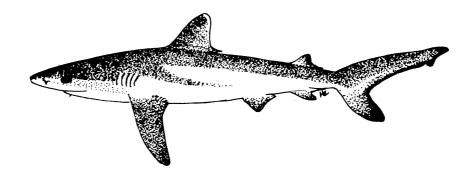
**Distribution:** Circumtropical.

**Remarks:** Carcharhinus altimus is considered to be a bottom dwelling shark and in Maldives it is mainly caught on pelagic longlines. Interestingly, it seems to be caught only at night ('mendhan' means midnight) over areas such as "Ali huras kandu" where water depths are within its range, suggesting that this species is a diurnal vertical migrator.

# בתבלת כנתצ

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#### Carcharhinus amblyrhynchos (Bleeker, 1856)



English Name : Grey reef sharkFamily : CARCHARHINIDAELocal Name : Vahboa miyaruOrder : Carcharhiniformes

Size: Common to 1.6 m; max. 1.9 m

**Distinctive Characters:** A moderate-sized fairly stocky shark. Snout broadly rounded. Upper teeth serrate, narrowly triangular. Ridge on back present or absent. 24 - 28 teeth in jaws. Anterior nasal flaps very low.

**Colour:** Grey above, pale below. Trailing edge of caudal fin broadly blackish. Upper part of trailing edge of first dorsal fin narrowly whitish (in Indian Ocean individuals)

**Habitat and Biology:** Common on upper part of outer reef slopes to depths of about 100 m or more. Feeds mainly on bony fishes, occasionally on cephalopods and crustaceans. Viviparous, with a yolk-sac placenta; number of young per litter 1 to 6.

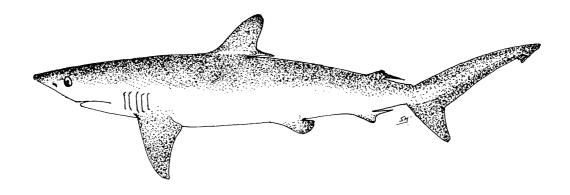
**Distribution:** Indo-Pacific

**Remarks:** Carcharhinus amblyrhynchos is one of the commonest reef shark in Maldives and it is this species that is normally seen by divers at shark feeding stations. Grey reef sharks in the Indian Ocean is far less aggressive than those in the Pacific. This, combined with small differences in colouration and dentition, has led some to suggest that they might be two separate species.

במצת כול ה

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#### Carcharhinus falciformis (Bibron, 1839)



English Name: Silky shark

Local Name: Oivaali miyaru, Ainu miyaru

Order: Carcharhiniformes

Size: Max. 3.3 m

Specimen: MRS/P0312/88

**Distinctive Characters:** A large, relatively slender shark. Snout moderately long and pointed. Origin of first dorsal fin behind the rear of pectorals. Second dorsal low with long posterior extension. Pectoral long and pointed. Ridge between dorsals.

Colour: Grey, pale below.

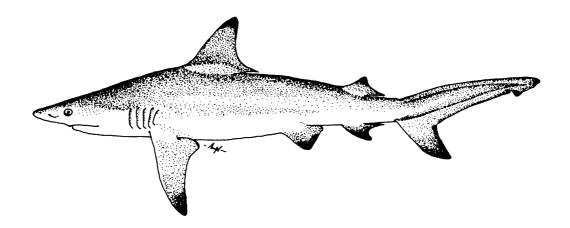
**Habitat and Biology:** Inhabits oceanic waters near and beyond continental slopes, but also found in coastal waters. Usually near the surface but also found at depths upto 500 m. Feeds mainly on fishes, squids and octopods. Viviparous with a yolk-sac placenta; 2-4 young per litter.

**Distribution:** Circumtropical

Remarks: Carcharhinus falciformis is one of the commonest oceanic shark in Maldivian waters.

# 2/12/20X

#### Carcharhinus limbatus (Valenciennes, 1839)



**English Name**: Blacktip shark **Local Name**: Thun hima miyaru **Family**: CARCHARHINIDAE **Carcharhiniformes** 

**Size:** Common to 1.5m; max. 2.5 m

**Distinctive Characters:** A medium-sized, fairly stocky shark. Long snout, its length about equal to mouth width. Upper and lower teeth nearly symmetrical and similar, with erect narrow cusps and serrated edges. First dorsal fin pointed and with origin roughly level with pectoral insertions.

**Colour:** Grey with brassy sheen; pale below. Black on tips to dorsal fins, paired fins, anal fin lower caudal lobe and on leading edges of caudal fin.

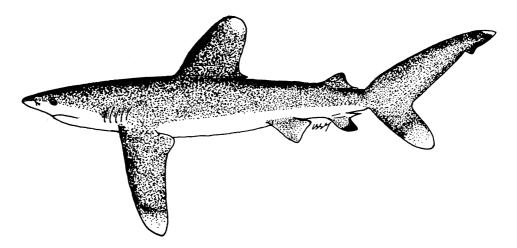
**Habitat and Biology:** Occurs in coastal as well as offshore surface waters. Fast moving, sometimes leaping out of water. Feeds mainly on schooling fishes, occasionally on crustaceans and cephalopods. Viviparous, with a yolk-sac placenta; number of young per litter 1-10, commonly 4-7.

**Distribution:** World-wide in tropical and subtropical waters.

**Remarks:** Carcharhinus limbatus has so far been recorded in Maldives only from Laamu Atoll. Four specimens were taken there by R.V. "Farumas" during the Reef Fish Resources Survey. It would seem to be one of those species that is common in the south.

הלתל כונל

#### Carcharhinus longimanus (Poey, 1861)



English Name : Oceanic whitetip sharkFamily : CARCHARHINIDAELocal Name : Fee miyaru, Feeboa miyaruOrder : CarcharhiniformesSize : Max. possibly 3.9 mSpecimen : MRS/P0313/88

**Distinctive Characters:** A large, stocky shark. Snout short and broadly rounded. Teeth in upper jaw broad, triangular and serrated. First dorsal fin very large and broadly rounded. Pectoral fins very long and rounded. Ridge between dorsals.

**Colour:** Grey above, pale below. Tips of first dorsal, pectorals and lower lobe of caudal white. Black markings on posterior fins particularly noticeable in young.

**Habitat and Biology:** Occurs in oceanic waters but also occasionally in coastal waters. An apparently sluggish species often accompanied by pilot fishes. Feeds mainly on fishes and squids. Viviparous with yolk-sac placenta; number of litter 1 to 15 with larger females having larger litters.

**Distribution:** Circumtropical.

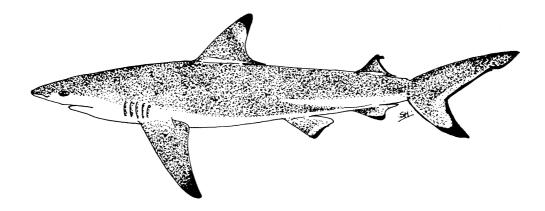
**Remarks:** Carcharhinus longimanus is a common oceanic shark. It is readily distinguished from other white-tipped sharks by its large rounded fins. A potentially dangerous shark with a few attacks on record, but normally unlikely to come into contact with man.

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#### Carcharhinus melanopterus (Qouy and Gaimard, 1824)



Size: Max. 1.8 m

**Distinctive Characters:** Snout short and rounded. Teeth in upper jaw serrated, with narrow angled points. Second dorsal fin high, its base less than twice its height. No ridge between dorsal fins.

**Colour:** Pale yellow brown. Fins with black tips. A conspicuous pale band on flank.

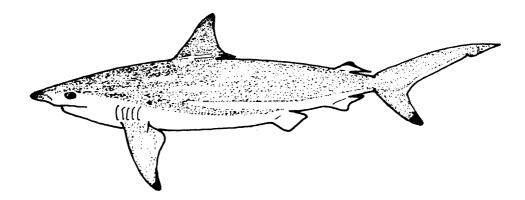
**Habitat and Biology:** Occurs inshore on continental and insular shelves; prefers shallow water on and around coral reefs to depths of 30 m or less. Feeds on small fishes and cephalopods. Viviparous with yolk-sac placenta; number of young per litter 2 to 4, usually 4.

**Distribution:** Indo-Pacific

**Remarks:** Carcharhinus melanopterus is a shallow water species, and so is seen by snorkellers and beachwalkers more commonly than any other shark. It is also taken more frequently by gill nets set in lagoons than other shark species. In the Pacific there have been some cases of attacks on lower limb of people wading in shallows. One individual was taken by R.V. "Farumas" near K. Ihuru.

האנעל כונא

دَمَرَمُوَ وَهُرَمُوَ هُمُمَامِوَهِ مُوَهُمْ وَهُوَ مُوَهُمْ وَهُوَمِوَ وَهُمُو هُمُ الْمَوْرُورُمُ وَهُرُمُ و وهُ ثَمَّ وَمُرَّ دُمُرَهُمَاهُ وَ ثَوْرَمُ مِ مُؤَلَّ وَهُرَمُو وَهُرُهُ وِرَدِهُ وِرَدِهُ وَرَدُهُ رَرْمُومٍ وهُ ثَمَّ مُورَ وَرَدُهُ وَوَهُمْ وَدِوْرُ رُحُرَمُ مِ 35 سُوحٍ عِمَّدُ وَهُرَهُ وَهُرَامُ وَوَوَرُهُ وَوَقَوَ وهُ ثَمَا مُنْ مُرَمِمُ مُورِدُهُ وَوَدُرُهُ وَدِي مُدُورُ صُرْمُ مُرَدُونُ مُرَمِدُ وَمُرَدُونُ مُرَدُ وَمُر



English Name: Spottail shark

Local Name: Dhon miyaru

Order: Carcharhiniformes

Size: Max. about 1.6 m or more

Specimen: MRS/P0318/88

**Distinctive Characters:** Snout moderately long and pointed. Upper teeth serrated, triangular and angled posteriorly. Anterior nasal flaps with a short slender, narrow lobe. Second dorsal fin low with long free margin; length of base more than twice fin height. Ridge between dorsal fins.

**Colour:** Pale grey. Black spot on lower caudal lobe, also on second dorsal and pectoral tips. A conspicuous white band on flank.

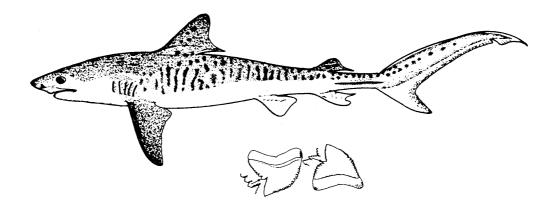
**Habitat and Biology:** Occurs in inshore and sometimes offshore waters; often found around coral reefs, at depths up to 140 m. Feeds on small bony fishes and cephalopods. Viviparous, with a yolk-sac placenta; number of young 3 to 6 per litter.

**Distribution:** Indo-West Pacific.

**Remarks:** Carcharhinus sorrah is not seen very often in Maldives. But individuals are occasionally caught in or near the atolls while handlining at night. This species appears to live near the bottom and its noticeably pale colouration may be a useful camouflage on sandy bottoms.

#### מנים כות ק מת כות מ

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English Name : Tiger sharkFamily : CARCHARHINIDAELocal Name : Femunu miyaruOrder : CarcharhiniformesSize : Max. 7.4 m or moreSpecimen : MRS/P0314/88

**Distinctive Characters:** Body large and fairly snout. Short, blunt snout. Foreparts stout, but hindparts more slender. Low keel on either side of caudal peduncle. Distinctive teeth (see illustration). Upper labial furrows very long extending to front of eyes. Spiracle present.

Colour: Grey. Dark spots and stripes on sides, which fade with growth.

**Habitat and Biology:** Occurs in inshore, as well as offshore waters, near the surface and bottom. A voracious indiscriminate predator feeding on all kinds of fish, marine mammals, turtles, sea birds, sea snakes, cephalopods, molluscs and crustaceans, as well as carrion and garbage. Ovoviviparous; size of litter very large, 10 to 82. This species may mature at between 4 to 6 years old.

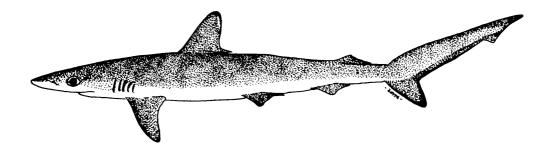
**Distribution:** Circumtropical.

**Remarks:** Galeocerdo cuvier is one of the most dangerous sharks. It attacks divers, swimmers and even boats. Certainly the tiger shark has the worst reputation as a man-eater amongst tropical sharks.

# ב לית כונית

وَدِرْمُونَ وَمُرَدُ وَمُرَدُ وَدُرْدُ وَدُرْدُ وَدَرُورُ دُرُورُ دُرُورُ دُرُورُ دُرُورُ دُرُورُ دُرُورُ وَدِرُ وَدِرُ مُرَدُونُ وَمُرَدُونُ وَمُرَدُونُ وَوَرُورُ وَدَرُ مَرَدُونُ وَمَرَدُونُ وَمِونُونُ وَمَونُونُ وَمَونُونُ وَمُونُونُ وَمُونُونِ وَمَرَدُونُ وَمَرَدُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُونُ وَمُونُونُ وَمُونُونُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُونُ وَمُونُونُ وَمُونُونُونُ وَمُونُونُونُ وَمُونُونُ وَمُونُونُونُ وَمُونُونُونُونُونُونُونُ وَمُونُونُ وَمُونُونُونُ وَمُونُونُونُ وَمُونُونُونُ وَمُونُونُونُ وَمُونُونُونُ وَمُونُونُونُ وَمُونُونُ وَمُونُونُونُ وَمُونُونُ وَمُونُونُ وَمُونُونُونُ وَمُونُونُ وَمُونُونُونُ وَمُونُونُونُونُ وَمُونُونُ وَمُ

#### Loxodon macrorhinus Müller and Henle, 1839



English Name: Sliteye shark

Local Name: Hikandhi thun miyaru

Order: Carcharhiniformes

Size: Max. about 95 cm

Specimen: MRS/P0330/88

**Distinctive Characters:** A small, slender shark. Snout long and fairly pointed. Large eyes with characteristic posterior notch. Origin of second dorsal fin above end of anal fin. Pectorals small. Usually no ridge between dorsals but preanal ridges present.

**Colour:** Greyish to brownish without a prominent colour pattern.

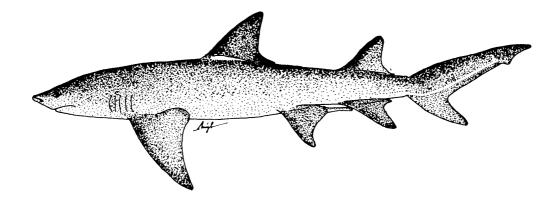
**Habitat and Biology:** Occurs in tropical, coastal, clear waters, near the surface and bottom; at depths from 7 to 80 m. Feeds on small bony fishes, crustaceans and cephalopods. Viviparous, with a yolk-sac placenta; number of young 2-4 per litter.

**Distribution:** Indo-West Pacific.

**Remarks:** Loxodon macrorhinus appears to be common in atoll basins. This species is of commercial importance in some other areas as food, especially in southern India. Not consumed in Maldives. Harmless to people.

# תמתפילת כונצ

#### Negaprion acutidens (Rüppell, 1837)



English Name :Sicklefin lemon sharkFamily :CARCHARHINIDAELocal Name :Femunu miyaruOrder :CarcharhiniformesSize :Max. 7.4 m or moreSpecimen :MRS/P0314/88

**Distinctive Characters:** Body large and fairly snout. Short, blunt snout. Foreparts stout, but hindparts more slender. Low keel on either side of caudal peduncle. Distinctive teeth (see illustration). Upper labial furrows very long extending to front of eyes. Spiracle present.

Colour: Grey. Dark spots and stripes on sides, which fade with growth.

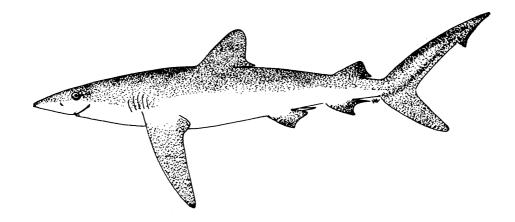
**Habitat and Biology:** Occurs in inshore, as well as offshore waters, near the surface and bottom. A voracious indiscriminate predator feeding on all kinds of fish, marine mammals, turtles, sea birds, sea snakes, cephalopods, molluscs and crustaceans, as well as carrion and garbage. Ovoviviparous; size of litters very large, 10 to 82. This species may mature at between 4 to 6 years old.

**Distribution:** Circumtropical.

**Remarks:** Galeocerdo cuvier is one of the most dangerous sharks. It attacks divers, swimmers and even boats. Certainly the tiger shark has the worst reputation as a man-eater amongst tropical sharks.

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#### Prionace glauca (Linnaeus, 1758)



English Name :Blue sharkFamily :CARCHARHINIDAELocal Name :Max. 3.8 mOrder :CarcharhiniformesSize :Max. 7.4 m or moreSpecimen :MRS/P0315/88

**Distinctive Characters:** A slender shark with long snout and long pointed pectorals. No spiracles. Base of first dorsal closer to pelvic than pectoral origins. Weak keel on either sides of caudal peduncle.

Colour: Deep blue above, pale below.

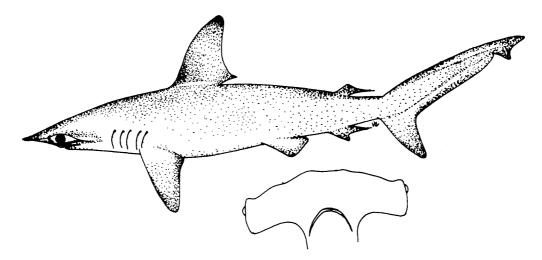
**Habitat and Biology:** Oceanic, epipelagic, from the surface to at least 220 m depth. It prefers relatively cool water at 7° C to 16°C, but can tolerate warmer waters. Feeds on bony fishes, small sharks, squids, pelagic crustaceans and occasionally sea birds and carrion. Viviparous, with a yolk-sac placenta; number of young 4 to 135 per litter.

**Distribution:** Circumglobal in temperate and tropical waters.

**Remarks:** *Prionace glauca* is probably the widest ranging chondrichthyian, but it is not very common in the Maldives. It is known to undertake long distance migration and show some degree of sexual segregation. About 95 per cent of blue sharks in Maldivian waters are males. A dangerous shark with several attacks on people and boats on record.

# התלת הל בחל

#### Sphyrna lewini (Griffith and Smith, 1834)



English Name: Scalloped hammerhead

Local Name: Kaaligandu miyaru

Order: Carcharhiniformes

Size: Max. 4.2 m

Specimen: MRS/P0317/88

**Distinctive Characters:** Head hammer-shaped, Broad "hammer" head, with median and lateral indentations. First dorsal origin slightly behind pectoral insertion. Posterior margin of eye roughly level with front of mouth. Margin of pelvic fins nearly straight.

Colour: Grey brown above, white below.

**Habitat and Biology:** Offshore, oceanic, but comes closer to continental edge and occasionally enters enclosed bays. Young form large true schools but adults mainly solitary or in pairs. Feeds on pelagic fishes, crustaceans and cephalopods. Viviparious; number of young 15 to 31 per litter.

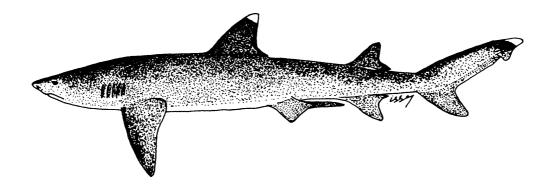
**Distribution:** Circumtropical.

**Remarks:** There are possibly three species of hammerheads which occur in the Maldives. However, *Sphyrna lewini* is the only one that has been definitely recorded and confirmed from there to date. Large schools observed by divers near A. Rasdhoo and a few other sites. Previously recorded under the family Sphymidae. Potentially dangerous to people.

# אל באר ב מל ב מל א

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## Triaenodon obesus (Rüppell, 1837)



English Name: Whitetip reef shark

Local Name: Olhufathi miyaru

Family: CARCHARHINIDAE

Carcharhiniformes

Size: Common to 1.6 m; max. 2.1 m

**Distinctive Characters:** Body relatively slender. Snout broad and short – shorter than width of mouth. Three pointed teeth. Base of first dorsal fin closer to pelvics than pectorals. Second dorsal fin large, its height over half that of first dorsal fin.

**Colour:** Greyish brown above, pale below. White tips to first dorsal and upper caudal lobe.

**Habitat and Biology:** Occurs in coastal clear waters, usually in and around coral reefs at depths down to at least 330 m. Feeds on wide variety of reef fishes, but also cephalopods and large crustaceans. Viviparous, with 1 to 5 young per litter (commonly 2 or 3).

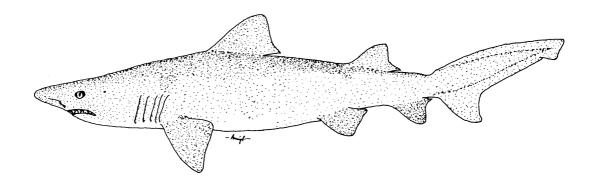
Distribution: Indo-Pacific and Eastern Pacific.

**Remarks:** *Triaenodon obesus* is one of the most common of Maldivian sharks. It is commonly seen by divers, often resting on bottom. Most active at night. Previously recorded under the family Hemigaleidae. Seven individuals are taken by R.V. 'Farumas' in North Male' Atoll.

### ה לל לם כול אל העצים בול א

وَوِ وَوَمَ مُ مُرِدُو وَرُرْمَ مُ مُرَدُو وَمُرِدُ مُ مُرَدُونِ مُ مِ هُوَهُ هُوَهُ وَلَمُورُدُ وَرُدُو وَمُرَدُ مُ مُرْدُو وَمُرَدُ مُرَدُ وَوَرُدُ مُرِبُ وَوَرُدُ مُرِبُ وَوَرُدُ مُرِبُ وَوَرُدُ مُرِبُ وَوَرُدُ مُرِبُ وَوَرُدُ مُرَبُ وَوَرُدُ مُرَبُ وَوَرُدُ مُرَبُ وَوَرُدُ مُرَبُ وَوَرُدُ مُرَبُ وَوَرُدُ مُرَدُ وَوَرُدُو وَمُرَدُ وَمِورُدُ وَمِورُدُ وَمِورُدُ وَمِورُدُ وَمِورُدُ وَمُومُو وَمُومُو وَمُومُو وَمُومُو وَمُومُو وَمُومُو وَمُمُومُ وَمُومُو وَمُومُو مُرْدُونُ وَمُومُو مُرْدُومُ وَمُومُو مُرَدُومُ وَمُومُو مُرْدُومُ وَمُومُو وَمُومُو وَمُومُو وَمُومُو وَمُومُو وَمُومُو وَمُومُومُ وَمُومُ وَمُومُومُ ومُومُومُ وَمُومُومُ ومُومُومُ وَمُومُومُ ومُومُومُ ومُومُومُ ومُومُومُومُ ومُومُومُ ومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُ

## Odontaspis ferox (Risso, 1810)



English Name: Small tooth sand tiger shark Family: ODONTASPIDIDAE

Local Name :Theyo miyaru, Meedhaa miyaruOrder :LamniformesSize :Max. 3.6 mSpecimen :MRS/0402/92

**Distinctive Characters:** A large, bulky shark. Snout moderately elongated and roundly conical. Eyes moderately large. Distinctive, long, narrow sharp teeth with 2 cusplets on each side. Typically 4 (sometimes 3) rows of small teeth on each side of upper jaw between large anterior and lateral teeth.

Colour: Grey; pale below. May be spotted.

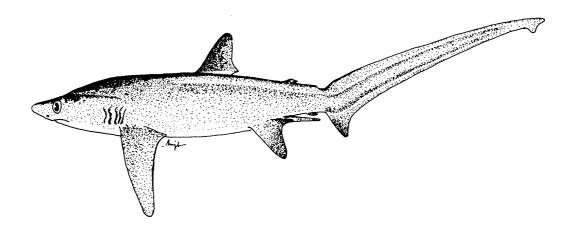
**Habitat and Biology:** Occurs in deep continental and insular shelves and upper slopes at depths of 13-420 m. Feeds on small bony fishes, squids and shrimps. Takes smaller and possible less active prey. Reproduction is unknown in this species but presumably ovoviviparous.

**Distribution:** Temperate and tropical waters.

**Remarks:** *Odontaspis ferox* is sometimes caught by bottom-set gillnets laid down at the reef slopes. More commonly it is caught by deep vertical long lines set outside the atolls for spiny dogfish ('kashi miyaru keyolhu kan'). Its Dhivehi names includes 'Theyo miyaru' (oil shark, on account of its large liver) and 'Meedhaa miyaru' (rat shark, on account of its appearance). Not implicated in attacks on people.

ה מנכונים המנכונית

## Alopias superciliosus (Lowe, 1839)



Size: Max. 4.6 m

**Distinctive Characters:** A large shark, with enormous upper caudal lobe, roughly equal to the length of the rest of the shark. Deep groove on each side of the nape; profile of head distinctly intended over eyes. Eyes very large, extending onto dorsal surface of head. First dorsal fin much larger than second.

Colour: Purplish-grey above, lighter below. Light ventral colouration not extending over pectoral fin bases.

**Habitat and Biology:** Oceanic, in depths to 500 m. Feeds on pelagic and benthic fishes, also on squids. Ovoviviparous, with uterine canibalism, number of young usually 2 per litter but sometimes up to 4.

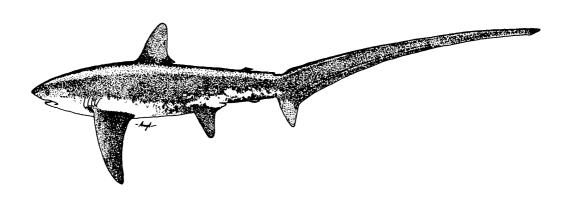
**Distribution:** Circumglobal in warm seas.

**Remarks:** *Alopias superciliosus* is readily distinguished from the other species of thresher sharks by its peculiar head shape. It was first recorded from Maldives by USSR research vessels (Gubanov, 1978).

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## Alopias vulpinus (Bonnaterre, 1788)



English Name: Thresher shark

Local Name: Kandi miyaru

Family: ALOPIIDAE

Order: Lamniformes

**Size:** Max. 5.5 m or more

**Distinctive Characters:** A large shark, with enormous upper caudal lobe, at least as long as rest of shark. No grooves on nape; profile of head not indented. Eyes moderately large and extending onto dorsal surface of head. First dorsal fin much larger than second, and located just behind pectoral fin insertions.

Colour: Dark above and abruptly white below. White area extends over pectoral fin bases.

**Habitat and Biology:** Coastal over the continental and insular shelves and epipelagic far from land. Young often close inshore. Feeds mainly on schooling fishes, but also on cephalopods and pelagic crustaceans. Ovoviviparous and apparently a uterine cannibal, number of young 2-4 litter.

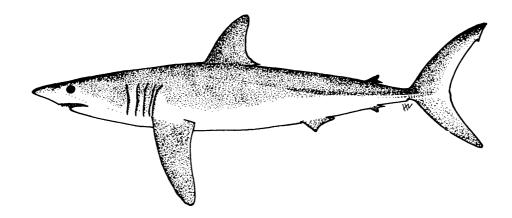
**Distribution:** Circumglobal in warm seas.

**Remarks:** *Alopias vulpinus* was first recorded from Maldivian offshore waters by USSR research vessels (Gubanov, 1978). It occurs regularly in offshore shark longline catches, and is also on very rare occasions seen by divers near the atolls.

מית z כות ה

مُسْوِدِورَهُمْ دِوْدُهُ وَمُنْ فَكُمْ وَمُسُوهُمْ وَهُ وَمُرَمُوهُ وَهُ وَهُمُمُوهُ وَهُوَهُ وَهُمُ وَوَدُورُ وَهُورُورُ فَكُمْ وَهُمُوهُ وَهُمُ وَهُمُ وَهُمُ وَهُمُ وَهُمُ وَهُمُ وَهُمُ وَهُمُورُورُ مُرْدُورُ وَهُمُمُوهُ وَهُمُ وهُمُ وَهُمُ وهُمُ وَهُمُ وَهُمُ وَهُمُ وَهُمُ وَهُمُ وَهُمُ وَهُمُ وَهُمُ وَهُ

## Isurus oxyrinchus Rafinesque, 1809



English Name : Shortfin makoFamily : LAMNIDAELocal Name : Woshimas miyaruOrder : LamniformesSize : Common to 2 m max. 4 mSpecimen : MRS/P0310/88

**Distinctive Characters:** Body moderately slender. Conical pointed snout. Caudal fin lunate. Caudal peduncle extremely broad and well-developed. Pectoral fins distinctly shorter than head.

Colour: Dark blue-grey above, white below.

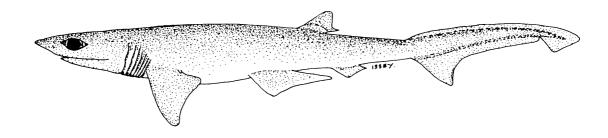
**Habitat and Biology:** Oceanic and coastal, usually in surface waters down to 152 m. Feeds on schooling fish, using its slender and sharply pointed teeth. Also attacks sharks and billfishes. Ovoviviparous without yolk-sac placenta, number of pups per litter 2 to 16.

**Distribution:** Temperate and tropical waters.

**Remarks:** *Isurus oxyrinchus* is an extremely fast and powerful shark, as its noticeably broad caudal peduncle suggests. It is a potentially dangerous shark. The longfin make (*I. paucus* Guitar Manday, 1966) is very similar in appearance but has a blunter snout and pectoral fins longer than the head; it probably occurs in Maldivian waters but has not yet been recorded.

## وروسوراركر

## Heptranchias perlo (Bonnaterre, 1788)



Size: Max. 1.4 m

**Distinctive Characters:** Head with 7 gill slits. Head and snout very narrow. Eyes very large. Single dorsal fin. Large comb-like lower teeth, their inner edges with a few short cusplets but no serrations.

Colour: Dark. Black tips to dorsal and upper caudal, especially prominent in young ones.

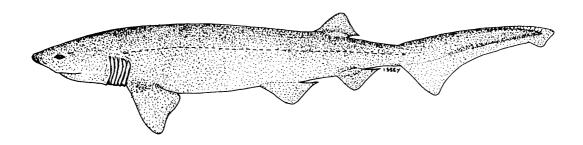
**Habitat and Biology:** Benthic, on the continental and insular shelves and upper slopes. Depths usually between 27-720 m. But sometimes in shallower water close inshore and down to 1000 m. Ovoviviparous, number of young 9 to 20 per litter.

**Distribution:** Widespread in temperate and tropical waters.

**Remarks:** One specimen of *Heptranchias perlo* (4.2 kg) was caught by bottom trawl in 240 m near a Thoddo on 22.8.83 by the Norwegian research vessel Dr 'Fridtjof Nansen'. Reported by Stromme (1983).

## ה מעם ל לבל בות א

## Hexanchus griseus (Bonnaterre, 1788)



Size: Max. 4.8 m

**Distinctive Characters:** A large, heavy bodied shark with six gill slits. Small eyes. Broad head with rounded snout. Single dorsal fin. Six rows of comb-like teeth on each side of lower jaw, each with inner edge serrated.

Colour: Usually dark grey.

**Habitat and Biology:** Benthic or pelagic, on the continental and insular shelves and upper slopes. Depths from surface to at least 1875 m. Young often close inshore. Adults in deeper water below 91 m. Feeds on a wide range of marine organisms including other sharks, rays, bony fishes and carrion. Ovoviviparous litters very large, 22-108.

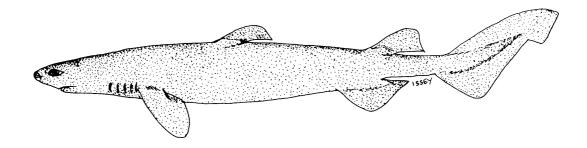
**Distribution:** Widespread in temperate and tropical waters.

**Remarks:** *Hexanchus griseus* is commonly caught in the fishery for deepwater spiny dogfish, '*kashi miyaru keyolthu kan*'. The liver of 'Madu miyaru' was prized for making oil for treating wooden dhonis, so this species was in earlier times subject to a specialized fishery: '*madu miyaru keyolhu kan*'. A photo of a Maldivian specimen is given in Anderson and Ahmed (1993, p.53).

ה הלכות ה

وَهُوهِرَمُنِ مُرَدَّتُ وَسُوهُ مِنْ مُرْسُرُ وَسَهُ رَمُومُ مُنَاهُ. وِهِ دَهُوْ فَكُرْشُ دُؤِشُ فَالْرُ وِهُ مُرَكَةُ. وَهُ دَهُوْ فَكُرْشُ دُؤْمُ فَالْرُ وَهُ مُرْكَةُ وَالْمَدُورُ مُرَكَةً وَمُ لَاكُورُ الْمُؤْمُ وَهُومُ الْمُؤْمُ وَهُومُ الْمُؤْمُ وَهُومُ لَا وَعُلَا اللّهُ اللّهُ اللّهُ وَهُومُ اللّهُ وَهُومُ وَهُومُومُ وَهُومُ وَهُومُومُ وَهُومُ ومُومُ وَهُومُ وكُومُ وهُومُومُ وَهُومُ وَهُومُ وَهُومُ وَهُومُ وَهُومُ وَهُومُ وهُومُ وهُومُومُ وهُومُومُ وهُومُومُ وهُومُومُ وهُومُومُ وهُمُومُ وهُومُومُ وهُومُومُ وهُمُومُ وهُومُومُ وهُومُ وهُومُ وهُمُومُ ومُومُ وهُمُومُ وهُومُ وهُومُ وهُومُومُ وهُمُومُ وهُ وهُمُومُ وهُم

## Dalatias licha (Bonnaterre, 1788)



English Name :Kitefin sharkFamily :DALATIIDAELocal Name :Kashi neiy miyaruOrder :SqualiformesSize :To 1.6 m, perhaps moreSpecimen :MRS/0397/92

**Distinctive Characters:** No spines on dorsal fin. First dorsal fin closer to pectorals than pelvics. Second dorsal fin slightly larger than first. Lips very thick and fringed with pleats and grooves. Upper teeth small and needle-like without cusplets. Lower teeth broad and overlapping, with singular triangular serrated cusps.

Colour: Dark grey or brown.

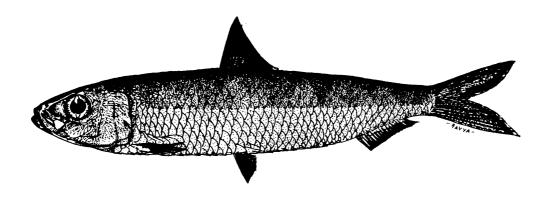
**Habitat and Biology:** Occurs in continental and insular shelves of depths from 37 to 1800 m, usually below 200 m. Feeds primarily on deep-water bony fishes, crustaceans and cephalopods. Development is ovoviviparous, with litters of 10 to 16 young.

**Distribution:** Probably widespread in temperate and tropical waters.

**Remarks:** Dalatias licha is a deepwater shark and it appears to be rare in Maldives. The set of jaws on which this record is based was taken by a fisherman on *L. Isdhoo*. This species was previously recorded under the family Squalidae.

מת הפרח הל תות הפרח ה

## Amblygaster leiogaster (Valenciennes, 1847)



English Name :Smoothbelly sardinellaFamily :CLUPEIDAELocal Name :MaarehiOrder :ClupeiformesSize :Common to 15 cm; max. 23 cmSpecimen :MRS/0492/97

**Distinctive Characters:** Body moderately slender, scutes not prominent. 31-35 lower gill rakers on first gill arch. Pelvic fin with 8 rays. Last two anal fin rays enlarged. Fronto-parietal bones (on top of head) with 7-14 striations. Upper and lower bulges on supremaxillary bone symmetrical.

Colour: Back blue-green, flanks silvery and without spots. Dorsal fin dusky.

Habitat and Biology: Pelagic and usually inshore, forms schools in shallow coastal waters.

**Distribution:** Indo-West Pacific.

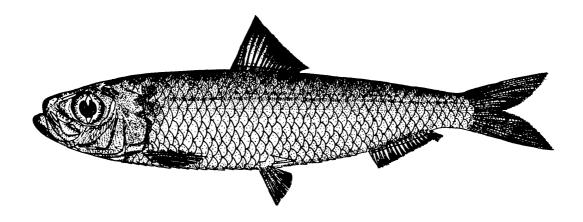
**Remarks:** *Amblygaster leiogaster* does not appear to be especially common in the Maldives, since this is the first record of its occurrence here. However, this may be due to the fact that it is not caught by the fishing gears normally used here. The specimen reported here was taken during experimental fishing carried by the Marine Research Station using gillnets on 25th April 1996.

ۇ بخرىر ر

دِدٍ بَرُدَيْ وَوْمَ لَوَدُ بَرُدُ وَوَرُدُ دَوْرُ دُوْرُو بُرَادُ عَرَا الْكُورُو وَرُوَّ وَرَاءُ وَرَاءُ وَرَاءُ الْمُرْدِ بَرُورُورُ وَرَاءُ وَرَاءُ وَرَاءُ وَرَاءُ وَرَاءُ وَمَرَ بَرَوْدُورُ الْمَرْدُورُ الْمُرْدُورُ اللهُ اللهُ

وَرُدُ مَا وَرُهُ مَا وَهُ مَا مِرْمُدُوْ وِدِ رِوَوِ وَمَا مِرْدُ سِوَدُرُ رُدُورُ دُرُورُ وَرُدُمَ وَدُورُ و وِوَرَثُ رِيدٌ وَرِرْ رَدُّ سَرُودُوسُ جُرُفَيْ وَرَجُ مَا الْآلَا مِرْدُورُ مِنْ وَدُرُرُ "وَجُرْدِ" رِيدُورُ وَرَدُ فَعَمَا مِرْدُورُ مِنْ وَرُدُو مُرْدُورُ وَرُدُو دُرُورُ مِنْ مِرْدُورُ دُرُدُورُ الْآدُورُ وَالْآرُورُ وَرَدُ وَسَنْ وَرَدُورُ الْآذِرُ وَرُدُورُ مُؤْدُورُ وَرُدُو دُرُورُ وَرُدُورُ مِنْ مِرْدُورُ وَرُدُورُ وَالْآدُورُ وَرُدُورُ وَرُدُورُ وَرُدُورُ الْآدُورُ وَالْآدُورُ وَالْ

## Herklotsichthys quadrimaculatus (Rüppell, 1837)



English Name :Bluestripe herringFamily :CLUPEIDAELocal Name :GumbalhaOrder :ClupeiformesSize :Max. 14 cmSpecimen :MRS/0033/86

**Distinctive Characters:** Dorsal fin with 17-20 rays. Anal fin with 17-19 rays. Pectoral fin with 15-16 rays. Body depth 3.3-5.5 in standard length, Fusiform and moderately slender body. Belly with distinct scutes. Top of head with few fronto-parietal striae, broad wing-like scales almost hidden beneath the overlapping predorsal scales.

**Colour:** Back bluish green without spots. Flanks silvery with an electric blue line preceded by two orange spots.

**Habitat and Biology:** In daytime forms dense schools in shallow lagoons. During night time moves into deeper water. Feeds on zooplankton mainly at night.

**Distribution:** Indo-Pacific.

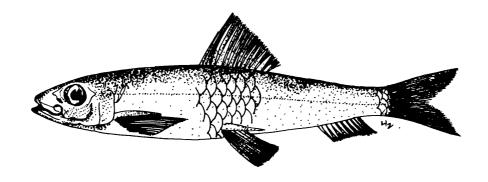
**Remarks:** *Herklotsichthys quadrimaculatus* forms large daytime schools in shallow lagoons, often in association with schools of Bigeye scad. Previously recorded as *Sardenella melanura* in the Catalogue of Fishes of Maldives, Vol. 1, page 52. Sometimes used as livebait in the tuna fishery.

1000

دُوهُ وَ دُو وَشَرَارُونُ وَ وَدُوهُ وَدُرُهُ وَ وَرَوْسُ دُوهِ وَ دُوهُ وَ دُورُونُ وَ دُوهُ وَدُوهُ مَا دُورُورُ وَ دُورُو وَوَهُ مَرَارُ وَشَرَهُ وَمُورُورُ وَرَدُرُورُ وَرِرَدُورُ وَ فَيْهُ وَرَدُو وَوَرُونُو وَرَدُورُ وَرَدُورُ وَ وَمُرَدُ وَرُدُورُ وَرَدُورُ وَمُرْدُورُ وَرِرَدُورُ وَرِيْ وَرِيْدُ وَرُدُورُ وَرَدُورُ وَمُورُ وَرَدُورُ وَمُورُ وَرَدُورُ وَرُورُ وَرَدُورُ وَرُورُ وَرُورُ وَرَدُورُ وَرُورُ وَرَدُورُ وَرُورُ وَرَدُورُ وَرُورُ وَرُورُ وَرُورُ وَرُورُ وَرُورُورُ وَرُورُ وَرَدُورُ وَرَدُورُ وَرَادُورُ وَرُورُ وَرُورُ وَرَدُورُ وَرَدُورُ وَرَدُورُ وَرُورُورُ وَرُورُ وَرُورُ ورُورُورُورُ وَرَدُورُ وَرُورُ وَرُورُ وَرُورُ وَرُورُ وَرَدُورُ وَرَدُورُ وَرَدُورُ وَرُورُورُ وَرُورُ وَرُورُورُ وَرُورُ وَرُورُ وَرُورُ وَرُورُورُ وَا

دُرْهُ وَدُورُ وَدُورُ وَرُدُو وَمِ مَرْدُ وَدُورُ وَدُورُ وَرُورُ ورُورُ وَرُورُ وَرُورُ وَرُورُ وَرُورُ وَرُورُ وَرُورُ وَرُورُورُ وَرُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْرُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُورُ وَالْمُورُورُ وَالْمُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُورُ وَالْمُورُورُورُ وَالْمُورُورُورُ وَالْمُورُورُورُ وَالْمُورُورُورُ وَالْمُورُور

## Spratelloides delicatulus (Bennett, 1831)



English Name :Blue spratFamily :CLUPEIDAELocal Name :HondeliOrder :ClupeiformesSize :Max. 7 cmSpecimen :MRS/0034/86

**Distinctive Characters:** Dorsal fin with 11-13 rays. Anal fin with 10 or 11 rays. Pectoral fin with 11-13 rays. Slender, subcylindrical body. Pectoral fin shorter than snout and eye together. Dorsal fin at mid body of fish. Pelvic fin below the base of dorsal fin. Anal fin near the caudal, belly smooth. Body covered with thin, delicate scales.

Colour: Dark bluish on back, sides and belly silvery. Fins hyaline.

Habitat and Biology: Pelagic and usually inshore, occurs in large schools within the atolls.

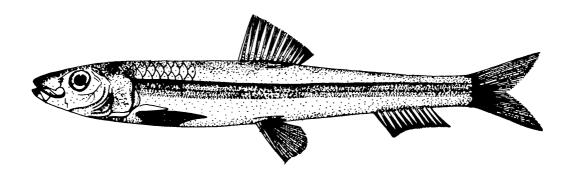
**Distribution:** Indo-Pacific.

**Remarks:** Spratelloides delicatulus is widely used bait for pole and line tuna fishing in the Maldives. It does, however, appear to be much commoner in the south of the country than in the center and north.

رسر يحر

وَرَى هَمُرَسُرِوَمِ نَهُمُرُسُومِ نَهُمُرَهُ الدَّدِ 13 دُّ وَرَوْ دُورُونَ دُورُونَ رَكَا مُرَدَّمُرُونَ هَلَا مُرَدِ الدَّرِ 13 دُّ وَرُونَ مَرْوَرُونَ وَرَدُ مَرُورُونَ وَرَدُونَ مُرَوْرُونَ وَرَدُونَ مُرَوْرُونَ وَرَدُونَ مُرَوَّ فَيْوَمِ الدَّرِ 13 دُّرُ وَرُونَ وَرُكُونَ مَرْدُونَ فَيْوَمِ الدَّرِ 1 كَوْرُو وَهُونَ وَرُكُو مَرْدُونَ فَيْوَمِ وَهُمُرَوْ وَرُكُونَ وَرُكُو وَمُومِ وَهُمُرَوْ وَرُكُونَ وَرُكُو مُرْدُونَ وَرُكُونَ وَرُكُو مُرْدُونَ وَرُكُو مُرْدُونَ وَرُكُو وَمِنْ مُرْدُونَ وَرُكُونَ وَرُكُونَ وَرُكُونَ وَرُكُونَ وَرُكُونَ وَرُكُونَ وَمُرَدُونَ وَرَدُونَ وَمُرَدُونَ وَرُكُونَ وَرُكُونَ وَرُكُونَ وَرُكُونَ وَرُكُونَ وَرُكُونَ وَمُرَدُونَ وَرَدُونَ وَمُرَدُونَ وَرُكُونَ وَكُونَا وَرُكُونَ وَكُونَا وَرُكُونَ وَكُونَا وَرُكُونَ وَكُونَا وَرُكُونَ وَكُونَا وَكُونَا وَكُونَا وَرُكُونَا وَكُونَا وَكُونَا وَرُونَا وَكُونَا وَلَونَا وَكُونَا وَكُونَا وَكُونَا وَكُونَا وَكُونَا وَلَونَا وَلَا مُونَا وَكُونَا وَلَونَا وَلَوْكُونَا وَلَونَا وَلَونَا وَلَونَا وَلَا وَلَوْكُونَا وَلَونَا وَلَونَا وَلَوْكُونَا وَلَونَا وَلَونَا وَلَوالْمُونَا وَلَوْكُونَا وَلَونَا وَلَونَا وَلَونَا وَلَونَا وَل

## Spratelloides gracilis (Temminck and Schlegel, 1846)



English Name : Silver spratFamily : CLUPEIDAELocal Name : RehiOrder : ClupeiformesSize : Max. 9.5 cmSpecimen : MRS/0031/86

**Distinctive Characters:** Slender body. Pectoral fin short and is slightly shorter than eye and snout together. Body covered with thin, comparatively large scales. Head scale-less. Belly without scutes.

**Colour:** Dark blue dorsally, silvery white ventrally. A very distinct silvery lateral band from operculum extends to the base of caudal fin.

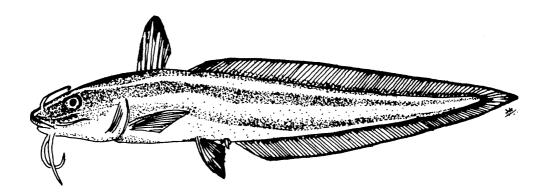
Habitat and Biology: Pelagic and usually inshore, occurs in large schools within the atolls.

**Distribution:** Indo-Pacific.

**Remarks:** *Spratelloides gracilis* is one of the most widely used bait for pole and line tuna fishing and it is very much preferred over other species of bait in the Maldives. On the eastern side of Maldives it is commonest during the southwest monsoon, while on the western side it is commonest during the northeast monsoon. This species was previously recorded as *S. japonicus*.

گرر مر

## Plotosus lineatus (Thunberg, 1787)



English Name : Striped eel-catfishFamily : PLOTOSIDAELocal Name : E-ahttehiOrder : SiluriformesSize : Max. 32 cmSpecimen : MRS/0061/86

**Distinctive Characters:** First dorsal fin with 1 spine and 4 rays. Total second dorsal-caudal-anal with 139-200 rays. Pectoral fin with 1 spine and 9-13 rays. Pelvic fin with 10-13 rays. Elongated eel like fish. 4 pairs of barbels on head. First dorsal fin short with strongly ossified first spine. Anal, caudal and second dorsal fin becoming one continuous fin. Total gill rakers 22-32.

**Colour:** Brown dorsally, white ventrally. Three white stripes on body. Two extended from snout to caudal peduncle. One from belly to caudal peduncle.

**Habitat and Biology:** Found on reefs, along open coasts, in estuaries and tidal pools. Juveniles form dense aggregations. Feeds on small crustaceans, molluscs and fishes.

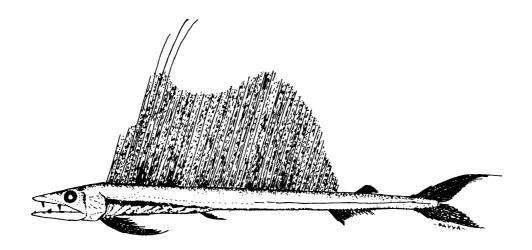
**Distribution:** Indo-West Pacific.

**Remarks:** The sharp dorsal and pectoral spines of *Plotosus lineatus* are extremely venomous. *P. angularis* (Bloch) is a synonym. Not common in Maldives, but most often seen in lagoons.

א המששת

ود وَشَوْ سَوْدُودُ رَشْرُورُنَوْ وَوَسَ دِرُودُودُورُدُورُ دَوْ وَرَدُورُ دُورُ دُورُ دُورُ دُورُ دُورُ دُورُ دُورُ دُورُ دُورُ وَكُورُ دُورُ وَكُورُ دُورُ وَكُورُ دُورُ وَكُورُ دُورُ وَكُورُ وَكُورُ دُورُ وَكُورُ وَكُونُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُ

## Alepisaurus ferox Lowe, 1833



**Size:** Max. 2 m

**Distinctive Characters:** Dorsal fin 32-45 rays. Anal fin 13-18 rays. Pectoral fin 12-15 rays. Pelvic fin 8-10 rays. No spines on fins. Elongate, compressed body. Large, sail-like first dorsal originating above or behind posterior margin of operculum. Second dorsal small and rubbery. Mouth very large with 3 fangs descending from roof. Caudal fin forked.

Colour: Dull brown. No white spots on dorsal fin membrane. Eyes turquoise.

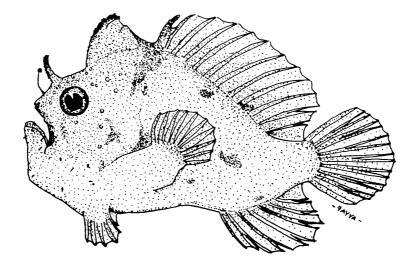
**Habitat and Biology:** Found at moderate depths in oceanic waters.

**Distribution:** Circumglobal.

**Remarks:** *Alepisaurus ferox* is occasionally seen by Maldivian fishermen some of whom say it is the juvenile sailfish. One individual of this species (93 cm in standard length) was taken by longline from the Ministry of Fisheries research vessel "Miyavalli" on 26 February 1985 about 120 miles ENE of Male.

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## Antennarius coccineus (Cuvier, 1831)



English Name: Scarlet frogfish, Freckled angler Family: ANTENNARIIDAE

Local Name :Kula bohmasOrder :LophiiformesSize :Max. 13 cmSpecimen :MRS/0188/88

**Distinctive Characters:** First dorsal fin spine free and modified as a lure. Second and third dorsal fin also free from the rest of the fins, well developed and covered by skin. Dorsal rays 12-13. Pectoral fin lobe elongate, leg-like. Gill opening restricted to a small pore located behind and below pectoral fin base. Caudal peduncle absent (dorsal and anal fin joined to base of caudal fin).

Colour: Highly variable. Often red or yellowish brown mottled and spotted with different colours.

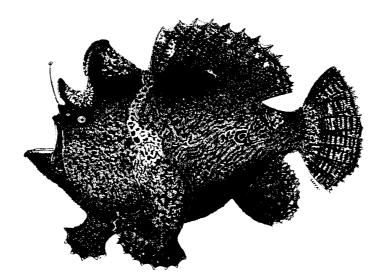
**Habitat and Biology:** Mostly benthic, coastal and surface waters to a depth of 100 m. Use their luring apparatus to attract fish and crustaceans on which they feed.

**Distribution:** Indo-Pacific eastward to the Americas.

**Remarks:** Antennarius coccineus is one of the masters of camouflage. Although it is not rare, divers can rarely see it because of its camouflage and infrequent movements.

## - 10× 17

## Antennarius commersonii (Latreille, 1804)



**English Name:** Commerson's frogfish, Giant angler **Family:** ANTENNARIIDAE

Local Name :Maa bohmasOrder :LophiiformesSize :Max. 38 cmSpecimen :MRS/0180/88

**Distinctive Characters:** Dorsal fin with 3 spines (which are well separated from one another), and 12-13 rays. First dorsal spine considerably longer than the second which is curved posteriorly. Anal fin with 8 rays. Pectoral fin 10-11 rays. Skin joining second dorsal spine to head thick and densely spinulose. Gill opening restricted to a pore. Caudal peduncle distinct.

**Colour:** Highly variable. Ground colour maybe red, orange, yellow, greenish, brown or black. A yellow one can change to red in three weeks.

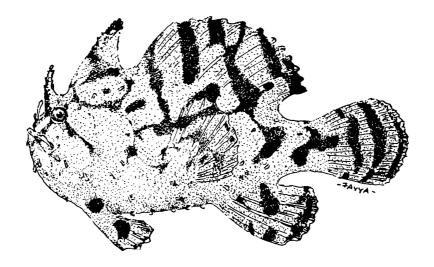
**Habitat and Biology:** Mostly benthic, coastal and surface waters to a depth of 100 m. Lures its prey (usually fishes) by movements of its specialized first dorsal spine.

Distribution: Indo-Pacific and Eastern Pacific.

**Remarks:** *Antennarius commersonii*, like other frogfishes (or anglers) is highly camaflouged. It is larger than most other frogfishes.

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## Histrio histrio (Linnaeus, 1758)



English Name: Sargassum frogfish Family: ANTENNARIIDAE

Local Name :Huifathu bohmasOrder :LophiiformesSize :Max. 19 cmSpecimen :MRS/0179/88

**Distinctive Characters:** Dorsal fin with three spines, which are separated from one another. Anal fin with 7-8 rays. Pectoral rays 9-11. Skin naked (smooth), often with membranous filaments or flaps. Pectoral fin with narrow limb-like base.

**Colour:** Colour and colour patterns highly variable. Generally mottled green, brown, effectively blending with the floating *Sargassam* weed.

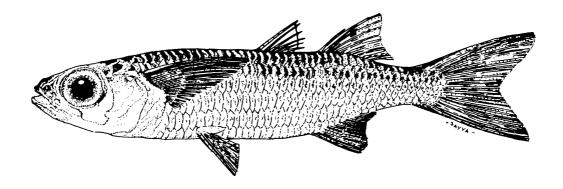
Habitat and Biology: Pelagic. Usually found clinging on floating Saragassam weed.

**Distribution:** Indo-West Pacific and tropical Atlantic.

**Remarks:** Unlike other frogfishes, *Histrio histrio* is a pelagic species. In the Maldives, patches of floating sargassum can be found off the eastern coast during the calm weather of the northeast monsoon. Close inspection of such weeds will often reveal one or two tiny *histrio*.

## ررور مرد مردس

## Atherinomorus lacunosus (Forster, 1801)



English Name : Hardyhead silversideFamily : ATHERINIDAELocal Name : HithiboaOrder : AtheriniformesSize : Max. 15 cmSpecimen : MRS/0486/97

**Distinctive Characters:** Distal end of upper jaw extending backward to vertical through anterior border of pupil. Dentary bone sloping upward and backward, but never elevated posteriorly. Anterior edge of preopercle with a distinct notch above angle. Mid-lateral scale count 39-44.

Colour: Greenish-grey on back, the scale edges dusky. A silvery stripe on side, its upper edge with an iridescent blue line. Live fish translucent.

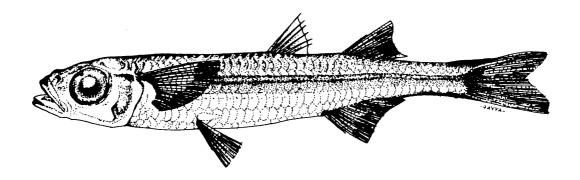
**Habitat and Biology:** Occurs in large stationery schools near the shore during the day. Feeds mostly at night on planktonic eggs, crustaceans and small fish.

**Distribution:** Indo-Pacific.

**Remarks:** Atherinomorus lacunosus is one of the two silverside species that are sometimes used as live bait by Maldivian tuna fishermen. Although it gives a good initial chumming response, the tunas soon stop feeding. The reason for this appears to be the silversides tough scales and bony body, which the tunas find indigestible. As a result, many tuna fishermen oppose the use of silversides as bait.

0501

## Hypoatherina temminckii (Bleeker, 1853)



English Name :Samoan silversideFamily :ATHERINIDAELocal Name :ThaavalhaOrder :AtheriniformesSize :Common to 7 cm; max. 11 cmSpecimen :MRS/0026/86

**Distinctive Characters:** Premaxillary bone with long and slender ascending process, lateral process short and wide. Dentary bone highly elevated posteriorly. 21-25 gill rakers on lower limb of first gill arch. Pectoral fin with 14-18 rays.

**Colour:** Greenish above, thin midlateral stripe and abdomen silvery. Usually upper surface of head dark. Fin bases dusky.

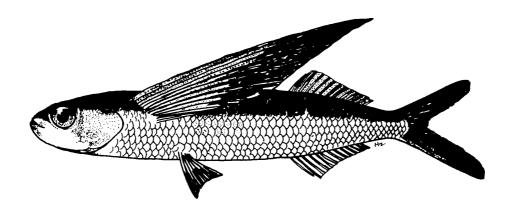
**Habitat and Biology:** Occurs in large schools near the shore during the day, moving out to open water to feed at night.

**Distribution:** Indo-Pacific.

**Remarks:** *Hypoatherina temminckii* is occasionally used as bait. The Dhivehi name '*Keravalha*' is sometimes used by fishermen for small atherinids. Previously recorded as *Allenetta barnesi* in the Catalogue of Fishes of the Maldives Vol. 1, page 24.

مردر می و بو

#### Exocoetus monocirrhus Richardson, 1846



English Name :Barbel flying fishFamily :EXOCOETIDAELocal Name :Naruvaa fulhangiOrder :BeloniformesSize :Max. 20 cmSpecimen :MRS/0018/86

**Distinctive Characters:** Dorsal fin with 13 or 14 rays. Anal fin with 12-14 rays. Their bases opposite to each other. Pelvic fins short, closer to the pectoral fin origin than to anal fin origin. Pectoral fin strikingly long, wing-like. Gill rakers on the first gill arch 21-29. Elongated body, its depth usually greater than 20 per cent of standard length. Usually 7 transverse rows of scales between dorsal fin origin and lateral line. Juveniles humpbacked with a single chin barbell and with black pelvic fins.

Colour: Dark bluish above, silvery-white below. Dorsal and pelvic fins greyfish.

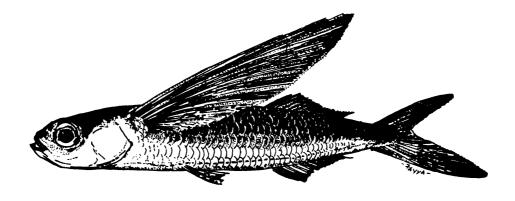
Habitat and Biology: Pelagic; open ocean waters. Feeds mainly on planktonic organisms.

**Distribution:** Indo-West Pacific.

**Remarks:** Like other flying fishes, *Exocoetus monocirrhus* is capable of leaping out of the water and gliding for long distances above the surface. It does this to escape from predators such as tunas and dolphin fishes. In this and other species, the lower lobe of caudal fin is elongated and strengthened; it can be dropped down into the sea surface when flying, and beaten to given an extra boost of flight.

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#### Exocoetus volitans Linnaeus, 1758



English Name : Tropical two-wing flying fishFamily : EXOCOETIDAELocal Name : Hiki fulhangiOrder : BeloniformesSize : Max. 18 cmSpecimen : MRS/0434/93

**Distinctive Characters:** Dorsal fin with 13-15 rays. Anal fin with 13 or 14 rays. Their bases opposite. Pelvic fins short. Pectoral fin strikingly long, 70-75 per cent of standard length. Gill rakers on the first gill arch 29-37. Body elongate, thick and somewhat flattened ventrally; its depth usually less than 19 per cent of standard length. Usually 6 transverse rows of scales between dorsal fin origin and lateral line.

**Colour:** Body dark, iridescent blue dorsally, silvery white ventrally. Pectoral and caudal fins grayish, other fins unpigmented. Juveniles sometimes with black bars.

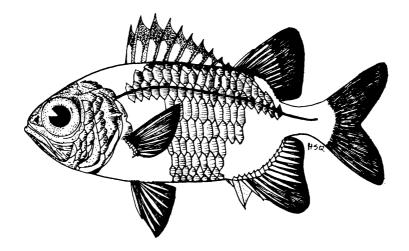
Habitat and Biology: Pelagic, open ocean waters. Feeds mainly on planktonic organisms.

**Distribution:** Circumtropical.

**Remarks:** Like other flying fishes, *Exocoetus volitans* is capable of leaping out of the water and gliding for long distances above the surface. The seasonal distribution of flying fishes in the Maldivian waters are not well known. However, this species in known to occur in huge numbers off Foah Mulaku every year in November – December, when they are preyed upon by yellowfin tunas and frigate birds.

תע *ב*קליתם תו

## Myripristis adusta Bleeker, 1853



English Name: Shadowfin soldierfish Family: HOLOCENTRIDAE

Local Name :Hiyani dhanboduOrder :BeryciformesSize :Common to 25 cm; max. 32 cmSpecimen :MRS/0322/88

**Distinctive Characters:** Dorsal fin with 10 spines, followed by 1 spine and 14-16 rays. Anal fin with 4 spines and 12-14 rays. Pectoral fin with 15-16 rays. Body depth 2.1-2.6 in standard length. Body oblong, inner pectoral axil naked except for one (*rarely two*) moderate scales on lower half.

**Colour:** Silvery, suffused with pale salmon, distinctive black blotches on soft dorsal, anal and caudal fins. Spiny dorsal black except for clear stripe in the middle. Head dark.

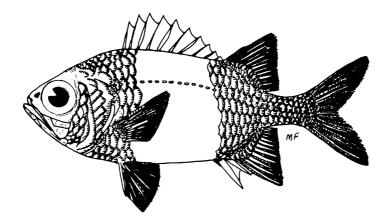
**Habitat and Biology:** Prefers shallow waters around coral reefs to depths of 30 m. Hides in caves during the day. Soldierfish feeds at night mainly on the larger zooplankton.

**Distribution:** Indo-Pacific.

**Remarks:** *Myripristis adusta* is the largest species of the genus. Its size and distinctive colouration makes this species relatively easy to identify. Common in Maldives.

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## Myripristis berndti Jordan and Evermann, 1903



English Name: Blotcheye soldierfish Family: HOLOCENTRIDAE

Local Name :Kothari reendhoo dhanboduOrder :BeryciformesSize :Common to 22 cm; max. 30 cmSpecimen :MRS/0323/88

**Distinctive Characters:** Dorsal fin with 10 spines, followed by 1 spine and 13-15 rays. Anal fin with 4 spines and 11-13 rays. Pectoral fin with 15 rays, pelvic fin with 1 spine and 7 rays. Body depth 2.3-2.6 in standard length. Body oblong. Lower jaw of adults prominently projecting when mouth closed; a single pair of tooth patches at front of lower jaw. Lateral line scales 28-31.

**Colour:** Silvery pink; a broad zone of orange-yellow on outer part of spiny dorsal fin. Leading edges of soft dorsal, caudal and pelvic fins white. Centres of scales silvery pink to pale yellowish; edges red.

**Habitat and Biology:** Prefers shallow waters (usually depths of 3-15 m) around coral reefs or rocky bottoms, which may be exposed to surge. Hides in caves during the day.

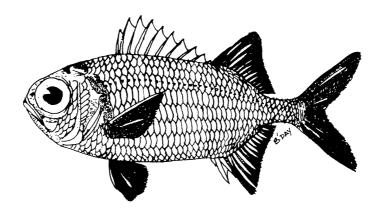
**Distribution:** Indo-Pacific.

**Remarks:** *Myripristis berndti* is the most likely to be confused with *M. murdjan*, but the two species can be separated on the colouration of their spiny dorsal fins. *M. berndti* has an orange-red spiny dorsal like *M. kuntee*. These two species can be separated on lateral line scale counts. The strongly projecting lower jaw is a particular helpful character for identification.

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English Name: Shoulderbar soldierfish Family: HOLOCENTRIDAE

Local Name :Fahdhemi dhanboduOrder :BeryciformesSize :Common to 16 cm; max. 20 cmSpecimen :MRS/0195/88

**Distinctive Characters:** Dorsal fin with 10 spines, followed by 1 spine and 15-17 rays. Anal fin with 4 spines and 14-16 rays. Pectoral fin with 15 rays. Body depth 2.2-2.9 in standard length. Body oblong. Third anal spine shorter than fourth. Small scales; lateral line scales 37-44.

**Colour:** Light red, Dark red-brown bar across top of gill opening to pectoral axil. Spiny dorsal orange. All fins with white leading edges; red pigment concentrated at tips of soft dorsal, anal and caudal fins.

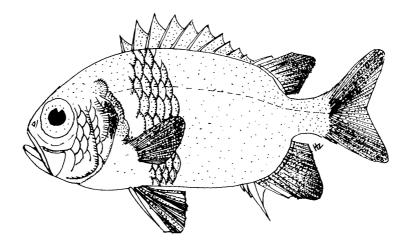
Habitat and Biology: Occurs in shallow waters around coral reefs to depths of 10 m. Nocturnal.

**Distribution:** Indo-Pacific.

**Remarks:** *Myripristis kuntee* is apparently closely related to *M. pralinia*. However, *M. kuntee* has a broad rectangular dark bar running from the upper edge of the gill opening to the axil of the pectoral, while the shoulder bar is more restricted in *M. pralinia*.

## ל תבת ב מת שב ב

## Myripristis melanosticta Bleeker, 1863



English Name: Blacktip soldierfish Family: HOLOCENTRIDAE

Local Name :Kalhu kothari dhanboduOrder :BeryciformesSize :Common to 24 cm; max. 30 cmSpecimen :MRS/0326/88

**Distinctive Characters:** Dorsal fin with 10 spines, followed by 1 spine and 13-15 rays. Anal fin with 4 spines and 11-12 (usually 12) rays. Pectoral fin with 14-15 rays. Body depth 2.1-2.5 in standard length. Total gill rakers 32-38. Body oblong. Corner of preopercle without sharp spine. Two pairs of tooth patches, one above the other at symphysis of lower jaw outside gape.

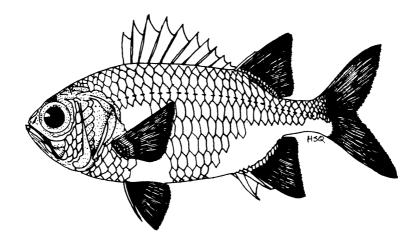
**Colour:** Body pale pink. Dark red bar across opercular edge. Red pigment on anterior part of head giving dark-faced appearance. Soft dorsal, anal and caudal fins red, with white leading edges and black blotches at tips. Outer part of spiny dorsal red.

**Habitat and Biology:** Occurs in moderate, to deep water, generally more than 25 m. Observed in the shelter of reefs by day, over open bottoms at night.

**Distribution:** Indo-West Pacific.

**Remarks:** *Myripristis melanosticta* is a moderately deep dweller. It is the second largest member of the genus after *M. adusta*.

## Myripristis murdjan (Forsskål, 1775)



English Name: Pinecone soldierfish Family: HOLOCENTRIDAE

**Local Name:** Berebedhi dhanbodu **Order:** Beryciformes **Size:** Common to 18 cm; max. 27 cm **Specimen:** MRS/0327/88

**Distinctive Characters:** Dorsal fin with 10 spines, followed by 1 spine and 13-15 rays. Anal fin with 4 spines and 11-13 rays. Pectoral fin with 14-16 rays. Body depth 2.3-2.5 in standard length. Body oblong. Lower jaw of adults only slightly protruding when mouth closed. Numerous small scales on inner pectoral axil. Third and fourth anal spines sub-equal. Lateral line scales 27-32.

**Colour:** Head, body and fins reddish. Leading edges of soft dorsal, anal, caudal and pelvic fins white. Outer part of spiny dorsal bright red.

**Habitat and Biology:** Coral reef species found at depths of 1-50 m. Hides in caves and crevices by day. Sometimes seen in huge aggregations swimming far from sheltering reefs.

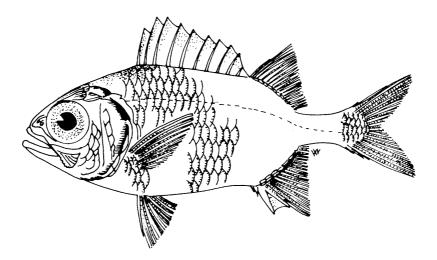
**Distribution:** Indo-West Pacific.

**Remarks:** *Myripristis murdjan* is a common speices in the Maldives. It can be distinguished from *M. berndti* by spiny dorsal colouration and *M. vittata* by scale size.

#### ے کے کے کہ ۵ ×7 محرص فر سرص

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## Myripristis pralinia Cuvier, 1829



English Name: Scarlet soldierfish Family: HOLOCENTRIDAE

Local Name :Ali dhanboduOrder :BeryciformesSize :Max. 20 cmSpecimen :MRS/0194/88

**Distinctive Characters:** Dorsal fin with 10 spines, followed by 1 spine and 14-16 rays. Anal fin with 4 spines and 13-15 rays. Pectoral fin with 15 rays. Body oblong. No scales on inner pectoral axil, fourth anal spine slightly longer then third. A single pair of tooth patches at symphysis of lower jaw just outside mouth. Front of lower jaw fitting into a shallow notch in upper jaw.

**Colour:** Head, body and fins scarlet. Upper part of opercular membrane black. Black blotch on pectoral axil. No black pigment on median fins.

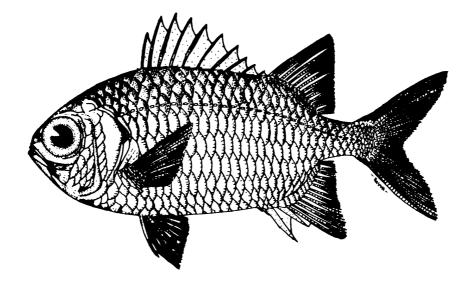
Habitat and Biology: Occurs on coral reefs usually at depths less than 10 m. Nocturnal.

**Distribution:** Indo-Pacific.

**Remarks:** *Myripristis pralinia* can be best identified by the restricted shoulder bar. Teeth on the outside of lower jaw sometimes developed into conspicuous knob.

وه مُرَّدُهُ وَمُرَوْهُ مَنَ صَمْرُهُمْ مَنَ مِرَدُهُ مِنَ مُرَّدُهُمْ مِرَ وَمُمَا مُرَدُهُ مِرَدُهُ مِرَدُ م رِسُّهُمُ مُنَادُ رَدُوْدُمَا وَمُرَادُهُمْ مَنَ مُرَادُهُمُ مُرَادُهُمُ مَا وَمُرَادُهُمُ وَرُسُونُ مُرَدُون وَمُرَادُ مُنْهُمُونُ مِنْهُ وَهُو مُرَادُهُمُ مُرَادُهُمُ مَنْ وَرَدُونُ مُرَادُهُمُ وَرَدُونُ مُرَدُونُ مُر مُنْ وَرَدُونُ مُرَدُونُ مِرَدُونُ مِنْهُ وَرَدُ مُرَوْدُ مُرَادُهُمُ مُرَدُونُ مُنْهُمُ وَرَدُونُ مُرَدُونُ م مُنْ وَرَدُونُونُونُ مِرَدُونُ وَرَدُونُ مُرْدُونُ مُنْهُونُ مُرُورُ مُنْهُونُ مُرْدُونُ مُنْهُونُ مُرَدُونُ مُنْهُونُ مُرْدُونُ مُنْهُونُ مُرَدُونُ مُنْهُونُ مُرْدُونُ مُنْهُونُ مُرْدُونُ مُنْهُونُ مُرَدُونُ مُرَدُونُ مُنْهُونُ مُرَدُونُ مُنْهُونُ مُرَدُونُ مُنْهُونُ مُرَدُونُ مُنْهُونُ مُرَدُونُ مُنْهُونُ مُرَدُونُ مُنْهُونُ مُرَادُونُ مُنْهُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَادُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُنْهُونُ مُرَادُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرادُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُنْمُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرَدُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُنْهُ مُرادُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُنْ مُرادُونُ مُونُونُ مُونُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُونُونُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُرادُونُ مُونُونُونُ مُونُونُ مُونُونُونُ مُونُونُ مُونُونُ مُونُونُونُ مُرادُونُ مُونُونُ مُونُونُونُ مُونُونُ مُونُونُونُ مُونُونُونُونُ مُونُونُونُ مُونُونُ مُونُونُونُ مُونُونُونُ مُونُونُ مُونُونُونُ مُونُونُونُ مُونُونُونُ مُرادُونُ مُونُونُ مُ مُرادُونُ مُونُونُ مُونُونُ مُونُونُ مُونُونُ مُونُونُ مُونُونُ مُونُونُونُ مُونُونُ مُونُونُونُ مُونُونُ مُونُون

## Myripristis violacea Bleeker, 1851



English Name: Violet soldierfish Family: HOLOCENTRIDAE

Local Name :Vailet dhanboduOrder :BeryciformesSize :Common to 18 cm; max. 23 cmSpecimen :MRS/0197/88

**Distinctive Characters:** Dorsal fin with 10 spines, followed by 1 spine and 13-16 rays. Anal fin with 4 spines and 12-14 rays. Pectoral fin with 15 rays. Body oblong. Body depth 1.9-2.5 in standard length. Small scales usually present on inner pectoral axil. Third and fourth anal spines sub-equal or fourth slightly longer. A single pair of tooth patches outside mouth at front of lower jaw.

**Colour:** Bluish to reddish-silver, the scales on back broadly rimmed in deep purple to black, those on side and ventral part of body edged in red. Median fins mainly red without black pigment.

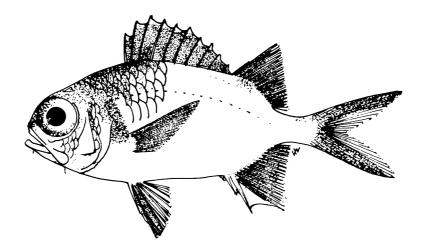
Habitat and Biology: A coral reef species of shallow water, particularly in protected areas.

Distribution: Indo-Pacific.

**Remarks:** *Myripristis violacea* is very easily identified because of its distinctive colouration. Soldierfishes and squirrelfishes are able to emit sounds both as warning signals and in order to communicate.

## وُرِحُ عِ دُرْسُ هُ ١

ود مُرَدَّةُ وَمَا وَمُرَدَّةُ مِنْ وَمُرَاءُ مَا مَدَّةُ وَمُرَاءُ مَا مُحَدُّهُ وَدُوْهُ مِنْ وَمُرَاءُ مَا مُرَدُةُ مِرْوَدُةُ وَمُرَاءُ وَمُرَاءً وَمُرَاءُ وَمُرَاءُ وَمُرَاءُ وَمُرَاءُ وَمُرَاءُ وَمُرَاءُ وَمُرَاءُ وَمُرَاءً وَالْمُواءً وَالْمُواءِ وَالْمُواءِ وَالْمُواءِ وَالْمُواءِ وَالْمُواءِ وَالْمُوءَ وَالْمُوءَ وَالْمُواءً وَالْمُوءَ وَالْمُوءَ وَالْمُوءً وَالْمُوءَ وَالْمُواءِ وَالْمُوءَ وَالْمُوءً وَالْمُوءَ وَالْمُوءَ وَالْمُوءً وَالْمُوءَ وَالْمُواءُ وَالْمُوءَ وَالْمُوءَ وَالْمُوءَ وَالْمُوءَ وَالْمُوءَ وَالْم



English Name: Immaculate soldierfish Family: HOLOCENTRIDAE

Local Name :DhanboduOrder :BeryciformesSize :Max. 18 cmSpecimen :MRS/0196/88

**Distinctive Characters:** Dorsal fin with 10 spines, followed by 1 spine and 13-15 rays. Anal fin with 4 spines and 11-12 rays. Pectoral fin with 15-16 rays. Lateral line scales 35-40. Third anal spine longer than fourth. No scales on inner pectoral axil. Single pair of tooth patches at symphysis of lower jaw just outside mouth.

**Colour:** Body orange-red. No dark pigment on opercular membrane. Spiny dorsal red but with white tips. A bright red spot at pectoral fin base; pectorals red, other fins red with white leading edges.

Habitat and Biology: Occurs in outer reef areas at depths greater than 10 m. Nocturnal.

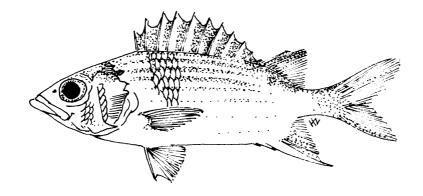
**Distribution:** Indo-Pacific.

**Remarks:** The small, bright coloured *Myripristis vittata* is one of the commoner soldierfishes in the Maldives. Its colouration is quite similar to that of *M. murdjan* but it can be distinguished by the presence of white tips to the spiny dorsal, as well as its smaller body and scale size.

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ב מעור מ ליני מית לב על לחוצים הליתל עם מל מל על ב על בי למת תפים בב מים

## Neoniphon aurolineatus (Liénard, 1839)



English Name: Gold-lined squirrelfish Family: HOLOCENTRIDAE

Local Name:Ranrongu raiverimasOrder:BeryciformesSize:Max. 22 cmSpecimen:MRS/0325/88

**Distinctive Characters:** Dorsal fin with 11 spines and 12-14 rays. Anal fin with 4 spines and 8-9 (usually 9) rays. Pectoral fin with 13-15 rays. Last dorsal spine equal to or slightly shorter than the penultimate spine and further from it than the first ray. Lower jaw strongly projecting.  $3^{1}/_{2}$  scale rows above lateral line to base of mid-dorsal spines. Lateral line scales 42-47.

Colour: Silvery pink with several yellow stripes on body. Spiny dorsal red and white.

**Habitat and Biology:** Occurs in coral reefs at depths greater than 40 m. Nocturnal.

**Distribution:** Indo-Pacific.

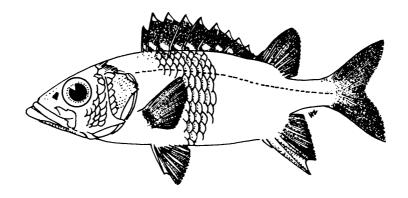
**Remarks:** Of the four species of *Neoniphon* found in the Maldives, *Neoniphon aurolineatus* is the deepest dwelling. This species is known from scattered insular localities.

## ئرشر ترسري ترير فريروك

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َ وِدِ وَوَرَّرُ وَمَوْوَ مِرَّرُورُ وِمُرِدُ وَهُمَ وَرُمَا الْمَوْدُ وَرَمَا الْمُؤَوَّدُمَا وِوَرَارُ وَوَرَ عُمَا الْمَالْمُولِدِ مَرْفَةُ وَرُورِ رَهْمَ دُمُووَ وَرُكَامُونُ سِودُدُرُهُورُ وَرَكْرِيدُ سَهُدِرُهِ وَلِمَ وَوَرَدُ "مَرْشُرْسِدُ تَمَدُومِونَ" بِالْمُرَارُورِ وَمِرْدُو.

## Neoniphon opercularis (Valenciennes, 1831)



English Name: Blackfin squirrelfish Family: HOLOCENTRIDAE

Local Name :Kalhu kothari raiverimasOrder :BeryciformesSize :Common to 23 cm; max. 32 cmSpecimen :MRS/0198/88

**Distinctive Characters:** Dorsal fin with 11 spines and 12-14 rays. Anal fin with 4 spines and 8-9 (usually 9) rays. Pectoral fin with 13-15 rays. Body depth 2.9 – 3.3 in standard length. Body moderately elongate. Lower jaw strongly projecting, last dorsal spine longer than the penultimate spine and further away from it than from the first ray. Corner of preopercle with sharp spine.

**Colour:** Silvery gold with a pinkish tinge given by red spot on each scale. Broad middle zone of spinuous portion of dorsal fin black; base and tips white.

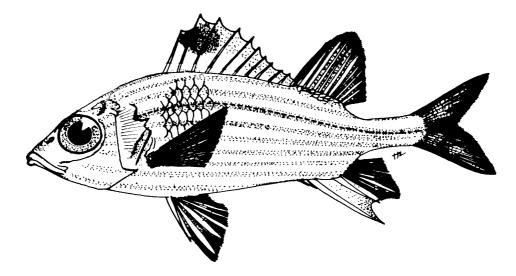
**Habitat and Biology:** A reef species found in shallow to a depth of 20 m. Nocturnal in habit and shelters among the branches of large stout branching corals during the day.

**Distribution:** Indo-Pacific.

**Remarks:** *Neoniphon opercularis* is the largest and perhaps the commonest species of the genus in the Maldives. It is readily distinguished from other *Neoniphon* by the extensive black on the dorsal fin.

## ماؤسمور مردومروس

## Neoniphon sammara (Forsskål, 1775)



English Name: Spotfin squirrelfish Family: HOLOCENTRIDAE

Local Name :Raiythiki raiverimasOrder :BeryciformesSize :Common to 23 cm; max. 28 cmSpecimen :MRS/0060/86

**Distinctive Characters:** Dorsal fin with 11 spines and 11-13 rays. Anal fin with 4 spines and 8 rays. Pectoral fin with 13-15 rays. Body depth 3.0 - 3.6 in standard length. Moderately elongated body. Preopercular spine broad. Snout pointed; lower jaw strongly projecting.

**Colour:** Silvery with reddish-brown horizontally elongated spots forming lines on the body. Lateral line scales with darker spots. A dark spot at the front of spinuous dorsal fin. Caudal fin yellowish, with submarginal dark streaks on lobes.

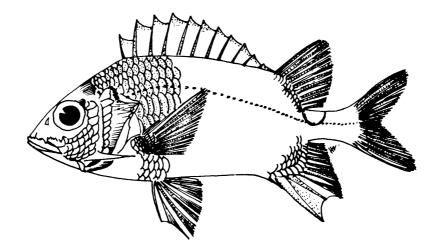
**Habitat and Biology:** Associated with coral reefs, most often in shallow waters and lagoons. Feeds at night on crabs and small fish.

**Distribution:** Indo-Pacific.

**Remarks:** *Neoniphon sammara* is one of the commonest squirrelfishes in the Indo-Pacific waters. Among the first to leave shelter with the advent of darkness for feeding. This species was previously recorded under the genus *Holocentrus* in the Catalogue of Fishes of the Maldives, Vol. 1, page 70.

مُرْهُ وَمِ مُرْدُ وَمِرُونُ

## Sargocentron caudimaculatum (Rüppell, 1838)



English Name: Silverspot squirrelfish Family: HOLOCENTRIDAE

Local Name :Asdhaanu raiverimasOrder :BeryciformesSize :Common to 23 cm; max. 24 cmSpecimen :MRS/0192/88

**Distinctive Characters:** Dorsal fin with 11 spines and 13-15 (usually 14) rays. Anal fin with 4 spines and 9 rays. Pectoral fin with 13-15 rays. Body depth 2.4-2.9 in standard length. 5 oblique rows of scales on cheek. Lateral line scales 40-43. Dorsal profile of head slightly convex. Preopercular spine long. Membranes between dorsal spines strongly incised.

Colour: Red. Silvery white spots or patch on upper caudal peduncle/ posterior part of back.

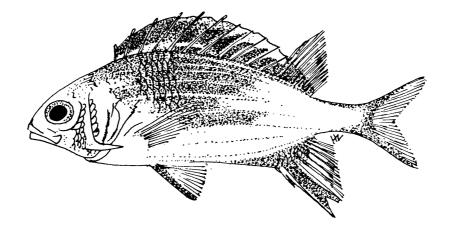
**Habitat and Biology:** A common shallow water reef species. Nocturnal. Squirrelfishes usually feed on bottom-dwelling creatures such as shrimps, small fishes and bristle worms.

**Distribution:** Indo-Pacific.

**Remarks:** Sargocentron caudimaculatum is one of the commonest squirrelfishes in the Maldives. The large preopercular spine of squirrelfishes is venomous.

## رُسُوعُ اللهِ مُرْدِةُ مِرْدُسُو

## Sargocentron diadema (Lacepède, 1801)



English Name: Crown squirrelfish Family: HOLOCENTRIDAE

Local Name :Seetu raiverimasOrder :BeryciformesSize :Max. 17 cmSpecimen :MRS/0190/88

**Distinctive Characters:** Dorsal fin with 11 spines and 13-15 (usually 14) rays. Anal fin with 4 spines and 8-9 rays. Pectoral fin rays 13-15 (usually 14). Body depth 2.4-2.9 in standard length. Dorsal profile of head slightly convex. Preopercular spine long. Membranes between dorsal spines strongly incised.

**Colour:** Red with narrow silvery white stripes. Spinous portion of dorsal fin deep red to nearly black with a whitish stripe (often disjunct). Silvery white spots or patch on upper caudal peduncle/ posterior part of back.

**Habitat and Biology:** A coral reef species usually found in depths of 2-30 m. Occurs in aggregations.

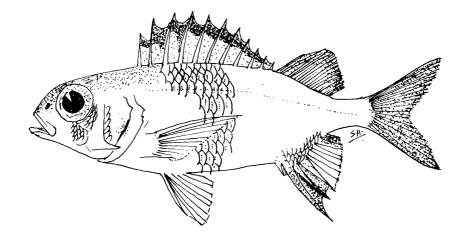
**Distribution:** Indo-Pacific.

**Remarks:** Sargocentron diadema appears to be a relatively common squirrelfish. It is probably the most abundant red and white-stripped species of Sargocentron in the Maldives.

سوچ مررؤمروس

وَرُوْدِ رُوْدِ مُوْدُودِ وَ وَكُوْدِ وَوَكُوْدِ وَرُوَدُ وَرَدُودَ وَرَدُودُ وَكُودُ وَكُودُ وَمِرَدِهِ وَدَو رُوْدُودِ وَ عَرْدُودُ وَكُودُ رُخَدُوْ . هَهُمَا رِوْمٍ تَهُمَ هَادٍ رَثَرَا رِرْمُورِ مِرْهُ وَكُودُ وَمَا مِرْمُدُودُ تَوْدُورُ مِرْدُودُ وَوَرُدُ رِهُونِ رِيْدُ وَوَرَدُ رِهُونِ وَيُرْدُونِ فَرَوْدُ مِرْدُودُ مِرْدُودُ وَرَدُود دُيْرُو هَادُدُ وَرُدُودُ مِنْ وَرُدُو مِنْ اللَّهِ عَرْدُونِ مِنْ مَرْدُودُ وَرُدُورِ وَرُدُودُ وَرُدُودُ وَ

## Sargocentron punctatissimum (Cuvier, 1829)



English Name: Peppered squirrelfish Family: HOLOCENTRIDAE

Local Name :Raiykothari raiverimasOrder :BeryciformesSize :Max. 16 cmSpecimen :MRS/0191/88

**Distinctive Characters:** Dorsal fin with 11 spines and 12-13 (usually 13) rays. Anal fin with 4 spines and 9 rays. Pectoral fin with 14-16 rays. Body depth 2.7-3.1 in standard length. Inter-orbital width greater than snout length. Nasal fossa without spinules. Preopercular spine about half eye diameter.

**Colour:** Silvery with slight reddish tinge and bluish iridescence above. Scales usually finely dotted with black. Caudal fin pale red. Spiny dorsal fin pale with red outer margin.

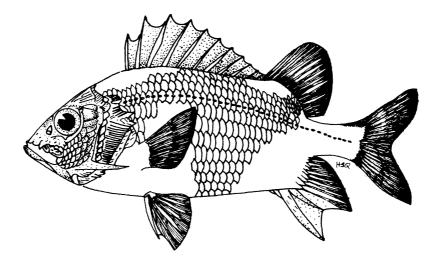
**Habitat and Biology:** Occurs on rocky shores and coral reefs exposed to wave action. Often found in very shallow waters. Feeds on bottom living animals.

**Distribution:** Indo-Pacific.

**Remarks:** Sargocentron punctatissimum is, like other squirrelfishes, essentially nocturnal. It hides by day and ventures out to feed at night. S. lacteoguttatum Cuvier is a synonym.

## ىرە ئىرى ئىردۇ برۇسى

## Sargocentron spiniferum (Forsskål, 1775)



English Name: Sabre squirrelfish Family: HOLOCENTRIDAE

Local Name :RaiverimasOrder :BeryciformesSize :Common to 35 cm; max. 45 cmSpecimen :MRS/P0113/87

**Distinctive Characters:** Dorsal fin with 11 spines and 14-16 rays. Anal fin with 4 spines and 9-10 (usually 10) rays. Pectoral fin with 14-16 rays. Body depth 2.4-2.6 in standard length. Dorsal profile of head nearly straight. Lower jaw projecting when mouth closed. Preopercular spine of adults longer than eye diameter. Spinous dorsal membranes not incised.

**Colour:** Body red. The edges of the scale silvery white. A large white vertically elongate crimson spot on head behind eyes. Spinous portion of dorsal fin solid deep red.

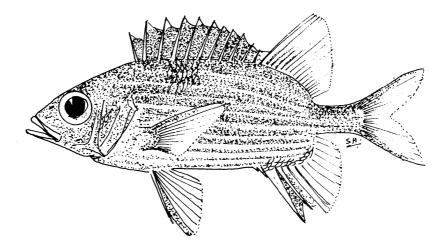
**Habitat and Biology:** Associated with coral reefs. Hides by day and emerges for foraging with the onset of darkness. Feeds on crustaceans.

**Distribution:** Indo-Pacific.

**Remarks:** Sargocentron spiniferum is the largest of the squirrelfishes. It is frequently taken by handlining at night and, despite its boniness, is considered to be a good food fish.

ئزد و بروس

#### Sargocentron tiereoides (Bleeker, 1853)



English Name: Pink-striped squirrelfish Family: HOLOCENTRIDAE

Local Name :Berebedhi raiverimasOrder :BeryciformesSize :Max. 16.5 cmSpecimen :MRS/0189/88

**Distinctive Characters:** Dorsal fin with 11 spines and 12-14 rays. Anal fin with 4 spines and 9-10 (usually 9) rays. Pectoral fin with 14-16 rays. Body depth 2.7-3.0 in standard length. Nasal fossa without spinules. Preopercular spine about two-thirds of eye diameter.

**Colour:** Striped silvery red. Red stripes and silvery interspaces of about equal width. Spiny dorsal red with white tips. Other fins red; anal and pelvics with white leading edge.

Habitat and Biology: Associated with coral reefs. Nocturnal.

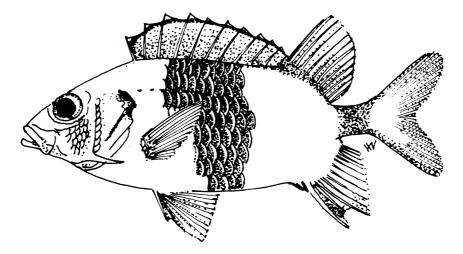
**Distribution:** Indo-Pacific.

**Remarks:** Sargocentron tiereoides is an uncommon species, and the original report in the Catalogue of Fishes of the Maldives Vol. 3, p. 388-89, was the first record from the Maldives. It was based on a specimen collected from a cave at 35 m on the outer reef slope by Dr John E Randall and MRS staff.

# ه کره و کرد و کروکس

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#### Sargocentron violaceum (Bleeker, 1853)



English Name: Violet squirrelfish Family: HOLOCENTRIDAE

Local Name :Raiykirulhi raiverimasOrder :BeryciformesSize :Max. 25 cmSpecimen :MRS/0193/88

**Distinctive Characters:** Dorsal fin with 11 spines and 13-14 rays (usually 14). Anal fin with 4 spines and 9 rays. Pectoral fin with 13-14 (usually 14) rays. Body depth 2.6-3.0 in standard length. Anterior and posterior margins of nasal fossa with 1-3 spinules. Preopercular spine about equal to the eye diameter. Membranes of spinous dorsal fin not incised.

**Colour:** Violet, each scale with white border. Triangular red patch above pectoral axil. Spiny dorsal pale red with white tips and thin bright red sub-marginal band. Other fins pale but leading edge of caudal and anal fins red.

**Habitat and Biology:** Associated with coral reefs. Nocturnal. It hides deep within caves and crevices in the reef slope during daytime.

**Distribution:** Indo-Pacific.

**Remarks:** Sargocentron violaceum does not appear to be especially common in Maldives, but can be readily distinguished by its violet colouration.

# مُرُهُ مِ يُرو مُرارة مِروسو

ود گرداد و گر

#### Corythoichthys haematopterus (Bleeker, 1851)



English Name :Redtailed pipefishFamily :SYNGNATHIDAELocal Name :Venu bandeyriOrder :GasterosteiformesSize :Max. 20 cmSpecimen :MRS/0022/86

**Distinctive Characters:** Dorsal fin with 23-33 rays. Trunk rings 16-18; tail rings 32-37. Usually about 14 bars formed by groups of stripes or reticulations. Superior trunk and tail ridges discontinuous. Lateral trunk ridges straight, ending near anal ring. Inferior trunk and tail ridges continuous.

**Colour:** Light yellowish grey. Body with dark bands comprising small longitudinal lines, sometimes spreading on to dorsal surface. Caudal fin usually light red.

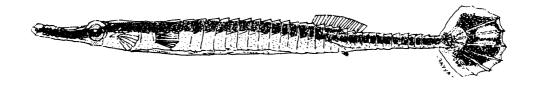
Habitat and Biology: Common on sandy reef slopes. Often in small groups.

**Distribution:** Indo-West Pacific.

**Remarks:** Corythoichthys haematopterus is of little interest among the aquarists. This species was previously recorded as *C. intestinalis* in the Catalogue of Fishes of Maldives, Vol. 1, page 144.

# rtmomb

#### Doryrhamphus excisus excisus Kaup, 1856



English Name :Bluestripe pipefishFamily :SYNGNATHIDAELocal Name :Noorongu venu bandeyriOrder :GasterosteiformesSize :Max. 8 cmSpecimen :MRS/0244/88

**Distinctive Characters:** Dorsal fin with 21-29 rays. Body rings 17-19. Tail rings 13-17. Sub-dorsal trunk rings 3-5. Superior trunk and tail ridges discontinuous; inferior trunk ridge ending on anal ring; lateral trunk ridge continuous with inferior tail ridge.

Colour: Bluish mid-lateral stripe on orange to reddish background and small fan like tail.

Habitat and Biology: Occurs in reef crevices.

Distribution: Indo-Pacific.

**Remarks:** *D. excisus abbreviatus* is the Red Sea sub-species. The closely related *Doryrhamphus bicarinatus* has recently been recorded from the Maldives.

## 

#### Dunckerocampus multiannulatus (Regan, 1903)



English Name: Many-banded pipefish

Local Name: Galhi kendi venu bandeyri

Size: Max. 17.5 cm

Family: SYNGNATHIDAE

Order: Gasterosteiformes

Specimen: MRS/0243/88

**Distinctive Characters:** Dorsal fin with 20-23 rays. Pectoral fin with 18-22 rays. Trunk rings 16. Tail rings 19-20.

Colour: Numerous narrow brownish red bars present on body. 4-6 dark bands on opercle.

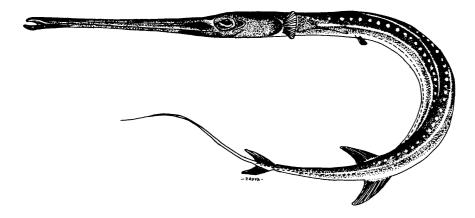
Habitat and Biology: Often found in caves, on the reef slope.

Distribution: Western Indian Ocean.

**Remarks:** *Dunckerocampus multiannulatus* is sometimes classified in the genus *Doryrhamphus*. It is fairly common in the Maldives, but easily overlooked by divers because it lives in small dark caves.

# אלעתב פתסתפאל

#### Fistularia commersonii Rüppell, 1838



English Name :Bluespotted cornet fishFamily :FISTULARIDAELocal Name :Onugandu tholhiOrder :GasterosteiformesSize :Common to 1m; max. 1.6 mSpecimen :MRS/0056/86

**Distinctive Characters:** Dorsal fin with 15-17 rays. Anal fin with 14-16 (usually 15) rays. Ridges on snout with antrose serrations, the upper ridge diverging anteriorly. No bony plates along dorsal midline of body. Body extremely elongate and depressed, the width twice the depth. Snout long and tubular. Mouth small, caudal fin forked with trailing filament.

**Colour:** Greenish to brownish grey above, silvery below. Two blue stripes or rows of the blue spots on back.

Habitat and Biology: Ranges over reefs, sea grass beds and sand flats. Feeds on small fishes and shrimps.

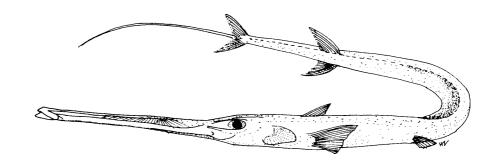
**Distribution:** Circumtropical.

**Remarks:** *Fistularia commersonii* is a more active swimmer than other cornet fishes. This species was previously misidentified as *F. petimba* Lacepede, in the Catalogue of Fishes of the Maldives, Vol. 1, page 64. *F. petimba* is a more deep water species and has red coloured markings (see next page).

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#### Fistularia petimba Lacepède, 1803



English Name :Red cornet fishFamily :FISTULARIDAELocal Name :Raiy onugandu tholhiOrder :GasterosteiformesSize :Common to 1 m; max. 2 mSpecimen :MRS/0308/88

**Distinctive Characters:** Dorsal fin with 14-17 rays. Anal fin with 14-15 rays. Pectoral fin with 15-17 rays. Body elongate with mouth at end of long tubular snout. Row of bony plates along top of body in front of dorsal fin. Small spines along posterior part of lateral line. Forward pointing spines on snout ridges. Upper ridges parallel.

Colour: Red to orange brown above, silvery below. Vertical fins also have an orange cast.

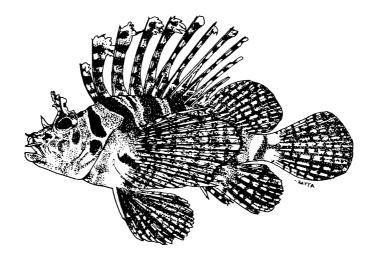
**Habitat and Biology:** Found in coastal areas, over soft bottoms usually at depths greater than 30 m. Feeds on small fishes and shrimps.

**Distribution:** Indo-West Pacific and tropical Atlantic.

**Remarks:** The specimen of *Fistularia petimba* on which this report is based was found in the stomach of a yellowfin tuna caught by R. V "Matha Hari" about 30 nautical miles east of Lhaviyani Atoll. Although partially digested it could be identified by its red colour and the pattern of spines on its snout.

# 

#### Dendrochirus zebra (Cuvier, 1829)



English Name : Zebra lionfishFamily :SCORPAENIDAELocal Name :Kanfaiykuda fanhaamasOrder :ScorpaeniformesSize :Max. 20 cmSpecimen :MRS/0106/87

**Distinctive Characters:** Dorsal fin with 13 spines and 10-11 rays. Anal fin with 3 spines and 6-7 rays. Pectoral fin with 17 rays. Pectoral fins only slightly longer than head; rays joined by membrane except for short tips; no filamentous rays on pectoral fin. Tentacles usually present above eyes.

**Colour:** Head and body with red brown bars alternating with narrower pink to whitish bars; most fins prominently striped or spotted. A dark brown or blackish blotch on lower edge of operculum.

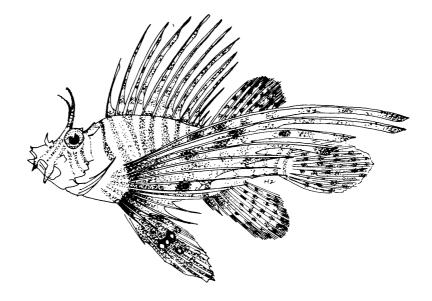
Habitat and Biology: Usually seen in shallow waters, particularly in lagoons down to depths of 35 m.

**Distribution:** Indo- Pacific.

**Remarks:** The genus *Dendrochirus* differs from *Pterois* by having the pectoral rays connected to each other almost to tips. Favoured by aquarists. Dorsal fin spines extremely venomous.

### 

#### Pterois miles (Bennett, 1828)



English Name :Indian lionfish, Soldier turkeyfishFamily :SCORPAENIDAELocal Name :FanhaamasOrder :ScorpaeniformesSize :Max. 35 cmSpecimen :MRS/0057/86

**Distinctive Characters:** Dorsal fin with 13 spines and 9-11 rays. Anal fin with 3 spines and 6 rays. Pectoral fin with 13-15 rays. Pectoral fins extending well beyond caudal fin base, the upper rays plume-like. Scales cycloid and small. In adults, many spinules on bones below eye.

**Colour:** Reddish or tan grey, with numerous thin dark bars on body and head. Tentacle above eye occasionally faintly banded. Dark spots on fins.

**Habitat and Biology:** Benthic, to about 60 m.

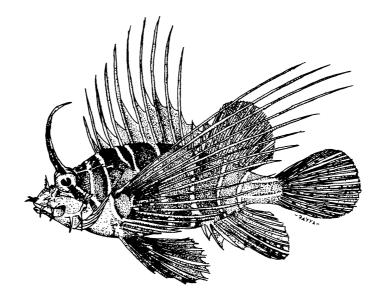
Distribution: Indian Ocean.

**Remarks:** *Pterois miles* was identified as *P. volitans* (Linnaeus) in the Catalogue of Fishes of the Maldives Vol. 1, page 136. Most ichthyologists now consider *P. miles* and *P. volitans* to be sibling species, the former limited to the Indian Ocean, the latter found in the Pacific. However, this distinction is currently under review.

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#### Pterois radiata Cuvier, 1829



English Name :Clearfin lionfish, Clearfin turkeyfishFamily :SCORPAENIDAELocal Name :Hulhu fanhaamasOrder :ScorpaeniformesSize :Max. 20 cmSpecimen :MRS/0099/87

**Distinctive Characters:** Dorsal fin with 12-13 spines and 11 rays. Anal fin with 3 spines and 5-6 rays. Pectoral fin with 16 rays. Pectoral fin rays very long, reaching well beyond caudal fin base, more than half their length free of membrane. Tentacle over eye without frills or dark cross bands.

**Colour:** Reddish to brownish, with about 5-6 broad dark bars on body, separated by pale lines. No dark spots on fins.

**Habitat and Biology:** Benthic, in shallow waters to a depth of about 30 m. A shy and nocturnal species. Feeds mainly on crabs and shrimps.

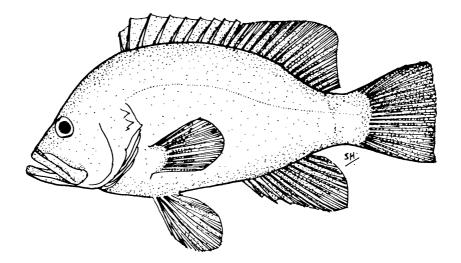
Distribution: Indo- Pacific.

**Remarks:** *Pterois radiata* is easily recognised by the pair of horizontal white lines along the caudal peduncle. As with other lionfishes, the dorsal fin spines extremely venomous. A popular aquarium fish.

### رو و سرروس

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#### Aethaloperca rogaa (Forsskål, 1775)



English Name :Redmouth grouperFamily :SERRANIDAELocal Name :Ginimas faanaOrder :PerciformesSize :Max. 60 cmSpecimen :MRS/0109/87

**Distinctive Characters:** Dorsal fin with 9 spines and 17-18 rays. Anal with 3 spines and 8-9 rays. Pectoral fin with 17-19 rays. Fifth or sixth pectoral ray longest. Body depth 2.1-2.4 in standard length. Body deep and compressed. Dorsal profile of head steep. Caudal fin truncate.

**Colour:** Uniformly dark brown. Inside of mouth and gill cavity scarlet. Junveniles have a white border to the caudal fin, adults may have a broad white band across the belly and half way up the side.

**Habitat and Biology:** Demersal, prefers well developed coral reefs in depths of 3-60 m. Usually seen in or near caves or holes in the reef. Feeds on small fishes and crustaceans.

**Distribution:** Indo-West Pacific.

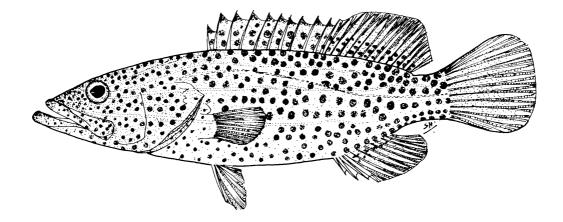
**Remarks:** *Aethaloperca rogaa* is a moderately common fish, which normally occurs singly along the reefs. Often associated with schools of baitfish sheltering in caves. It can be taken by handlines, but is a rather slow biter. A well-regarded table fish.

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َ وَرُوْ هُوَمَارِوَهٍ ثَهُمَ مِهُ رِي وَ رَثَرَارُهُوَ 11 ثَرْهُمُ 18 وَلَمَارِرْتُرَمُوَ. هَرِلَوْ تُرُورُتُهُ وَ ثَمُو مُرَوَّ مُرَدُورُتُهُ وَ مَرْدَوْ مُرَوَّ مُرَدُورُتُهُ وَرُو مُرَدُورُ م

#### Anyperodon leucogrammicus (Valenciennes, 1828)



English Name :Slender grouperFamily :SERRANIDAELocal Name :Boalhajehi faanaOrder :PerciformesSize :Common to 35 cm; max. 52 cmSpecimen :MRS/0078/86

**Distinctive Characters:** Dorsal fin with 11 spines and 14-16 rays. Anal fin with 3 spines and 8-9 rays. Pectoral fin with 15-17 rays. Body depth 3.1-3.7 in standard length. Body slender and compressed. No teeth on palatine bones (on each side of roof of mouth). Pointed snout. Caudal fin rounded.

**Colour:** Brown or olive body with numerous small orange-red spots extending onto dorsal fin plus four white streaks along the body. Juveniles with orange-yellow and blue stripes, and a blue edged black spot (or double spot) at the base of caudal fin and in dorsl fin.

**Habitat and Biology:** Occurs in areas of rich coral cover and clear water depths of 5-80 m. Solitary, often hides under corals and crevices. Feeds on small fishes and crustaceans.

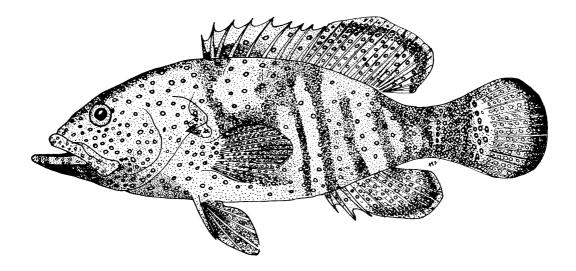
**Distribution:** Indo-West Pacific.

**Remarks:** Juveniles of *Anyperodon leucogrammicus* mimic wrasses of the genus *Halichoere*. Adults able to change its pigmentation pattern very quickly. A well-regarded food fish.

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وَرَى الْوَرَامِ وَلَوْرِمُ مَرْهُ وَ الْمُرْمُ وَهُمْ الْمُرْمُ وَالْمُرْمُ الْمُرْمُ الْمُرْمُ الْمُرْمُ وَالْمُرْمُ وَالْمُرُمُ وَالْمُرْمُ وَالْمُرْمُومُ وَالْمُرْمُ وَالْمُرْمُومُ وَالْمُرْمُومُ وَالْمُومُ وَالْمُرْمُومُ وَالْمُومُ وَالْمُرْمُ وَلِمُومُ وَالْمُومُ وَالْمُومُ وَالْمُرْمُومُ وَالْمُومُ وَالْمُرْمُومُ وَالْمُومُ وَلِمُ وَالْمُومُ وَلِمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ ولِمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ ولِمُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالِمُ وَالْمُومُ وَال

#### Cephalopholis argus Bloch and Schneider, 1801



English Name : Peacock hindFamily : SERRANIDAELocal Name : Mas faanaOrder : PerciformesSize : Common to 35 cm; max. 52 cmSpecimen : MRS/0053/86

**Distinctive Characters:** Dorsal fin with 9 spines and 15-17 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 16-18 rays. Body depth 2.7-3.2 in standard length. Oblong, somewhat compressed body, 17-19 gill rakers on the lower limb. Auxiliary scales present on body. Dorsal rays and anal rays longer than their adjacent spines. Pelvic fin shorter than half head length.

**Colour:** Body, head and fins dark brown. About 5-6 pale vertical bars occur on sides. Entire body including the fins spotted with black-edged blue spots. Fins dark.

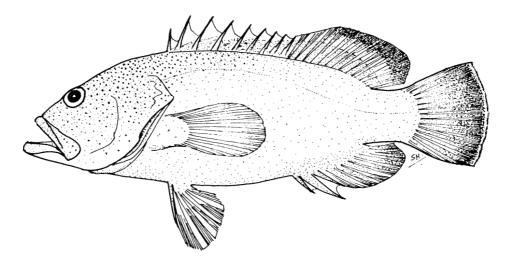
**Habitat and Biology:** Demersal, found in lagoons and on coral reefs to depths of 40 m. Occurs singly or in pairs, typically hides under coral ledges or in rocky crevices. Feeds primarily on fishes.

**Distribution:** Indo-Pacific.

**Remarks:** *Cephalopholis argus* is the most common and widespread species of the genus. Juveniles are sometime exported as aquarium fish. Considered as an excellent food fish.

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#### Cephalopholis aurantia (Valenciennes, 1828)



English Name : Golden hindFamily :SERRANIDAELocal Name :Ran faanaOrder :PerciformesSize :Common to 30 cm; max. 60 cmSpecimen :MRS/0156/87

**Distinctive Characters:** Dorsal fin with 9 spines and 14-16 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 17-18 rays. Body depth 2.4-2.9 in standard length. Preopercle rounded, finely serrate, lower edge fleshy. Edge of subopercle and interopercle distinctly serrate. Pelvic fins reach or slightly short of anus. Caudal fin rounded.

**Colour:** Pale orange to orange yellow, with fin spots on head and anterior dorsally on body and on base of dorsal fin. Posterior margin of caudal fin with a pale blue edge and black sub-marginal line.

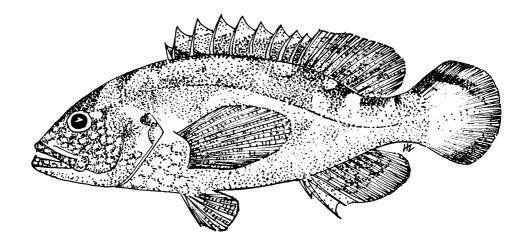
Habitat and Biology: Deep water grouper usually caught in depths over 100 m.

Distribution: Western Indian Ocean.

**Remarks:** Cephalopholis aurantia is not encountered very often because it is a deep dweller. Very similar to C. spiloparaea, which differs in colour and C. sonnerati, which differs in colour pattern and in having a greater body depth and more scales.

برشريٌ سُر

#### Cephalopholis leopardus (Lacepède, 1802)



English Name : Leopard hindFamily :SERRANIDAELocal Name :Raiy thiki faanaOrder :PerciformesSize :Max. 20 cmSpecimen :MRS/0200/88

**Distinctive Characters:** Dorsal fin with 9 spines and 13-15 rays. Anal fin with 3 spines and 9-10 rays. Pectoral fin with 16-18 rays. Body depth 2.5-2.8 in standard length. Maxilla reaches well past eyes. Preopercle rounded. Pelvic fins usually not reaching anus. Caudal and anal fins rounded.

**Colour:** Reddish-brown, pale below. Body with numerous orange spots. Two dark spots on upper caudal peduncle, the anterior one largest. Diagonal dark streaks on caudal fin, the upper one more distinct.

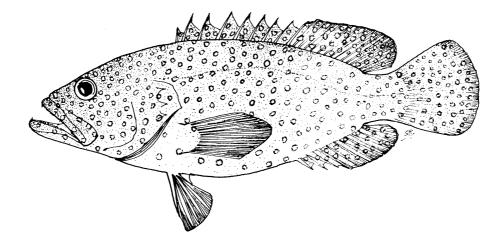
Habitat and Biology: Common on well-developed coral reefs, at depths of 3-38 m. Feeds on crustaceans.

**Distribution:** Indo-Pacific.

**Remarks:** *Cephalopholis leopardus* is a common inhabitant of upper reef slopes. However, because of its small size, mottled colouration and secretive habits, it is not noticed very often by divers.

بره وروس

#### Cephalopholis miniata (Forsskål, 1775)



English Name : Coral hind, Vermilion seabassFamily : SERRANIDAELocal Name : Koveli faana, Bulhala faanaOrder : PerciformesSize : Max. 40 cmSpecimen : MRS/P0141/87

**Distinctive Characters:** Dorsal fin with 9 spines and 14-16 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 17-18 rays. Body depth 2.6-3.0 in standard length. Maxilla scaly reaches to or beyond vertical at rear edge of orbit. Preopercle rounded; the lower edge fleshy. Caudal and anal fins rounded.

**Colour:** Bright-orange red with numerous small blue spots covering most of the body, but not underside of jaw. Pectoral fins yellow-orange distally.

**Habitat and Biology:** Found on well-developed exposed coral reefs in clear water at depths of 2-150 m. Feeds on schooling fishes and benthic invertebrates.

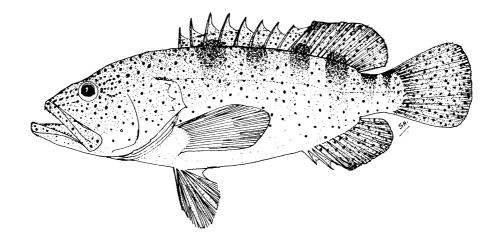
**Distribution:** Indo-Pacific.

**Remarks:** *Cephalopholis miniata* is one of the commonest and most beautiful of the coral groupers. Like *C. argus*, it is frequently seen by divers and snorkellers along the upper reef slopes.

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#### Cephalopholis sexmaculata (Rüppell, 1830)



English Name :Sixblotch hindFamily :SERRANIDAELocal Name :Landaa faanaOrder :PerciformesSize :Common to 35 cm; max. 48 cmSpecimen :MRS/P0142/87

**Distinctive Characters:** Dorsal fin with 9 spines and 14-16 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 16-18 rays. Body depth 2.5-3.0 in standard length. Maxilla reaches to or past vertical at rear edge of orbit. Preopercle rounded, the lower edge fleshy. Pelvic fins not reaching anus. Interorbital area flat to slightly convex. Caudal and anal fins rounded.

**Colour:** Orange-red with many small blue spots on head, body and median fins (short blue lines may be present on head). Four squarish black blotches dorsally on body, and two more on caudal peduncle.

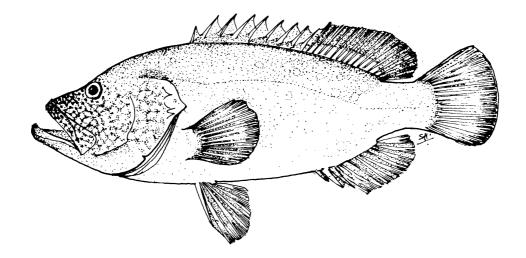
**Habitat and Biology:** Occurs on coral reefs between 10-150 m. Usually lives in caves and crevices on the outer reef slope. Feeds mainly on fishes.

**Distribution:** Indo-Pacific.

**Remarks:** *Cephalopholis sexmaculata* is active nocturnally in shallow water and diurnally in deeper water. Considered as a good-eating food fish.

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#### Cephalopholis sonnerati (Valenciennes, 1828)



English Name : Tomato hindFamily :SERRANIDAELocal Name :Veli fannaOrder :PerciformesSize :Common to 30 cm; max. 57 cmSpecimen :MRS/P0138/87

**Distinctive Characters:** Dorsal fin with 9 spines and 14-16 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 18-20 rays. Body depth 2.3-2.8 in standard length. Lateral line scales 66-80. Pectoral fin sub-equal to or less than pelvic fin. Dorsal head profile of adults straight to concave, the nape distinctly convex. Caudal fin rounded.

**Colour:** Body orange-red to red, becoming duskier in larger individuals. Scattered faint bluish-white spots. Head purplish with numerous close-set orange-red spots. Fins red, membranes of the soft dorsal, caudal and anal fins dusky. Body, caudal and soft dorsal fins with purplish spots.

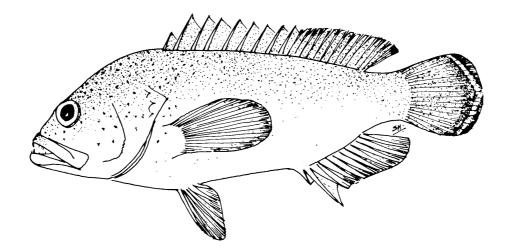
**Habitat and Biology:** Demersal. Occurs on coral reefs and in atoll basins usually at depths between 30-100 m (occasionally in shallower waters). Nocturnal. Feeds on fishes and crustaceans.

**Distribution:** Indo-Pacific.

**Remarks:** Cephalopholis sonnerati is a rather deep-dwelling species. It is therefore rarely seen by divers, but it is occasionally caught by hand lines at night.

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#### Cephalopholis spiloparaea (Valenciennes, 1828)



English Name :Strawberry hindFamily :SERRANIDAELocal Name :Naaringu faanaOrder :PerciformesSize :Max. 22 cmSpecimen :MRS/0324/88

**Distinctive Characters:** Dorsal fin with 9 spines and 14-16 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 17-19 rays. Body depth 2.6-3.2 in standard length. Eyes large, inter-orbital area flat. Maxilla scaly. Preopercle rounded, very finely serrate, with a shallow notch; lower edge fleshy. Subopercle and interopercle smooth with minute serrae. Pelvic fins not reaching anus.

**Colour:** Light red, mottled and blotched with brownish-red. Caudal fin with a bluish white posterior margin that becomes sub-marginal at corners. Distal margin of soft dorsal and anal fins with a pale bluish margin.

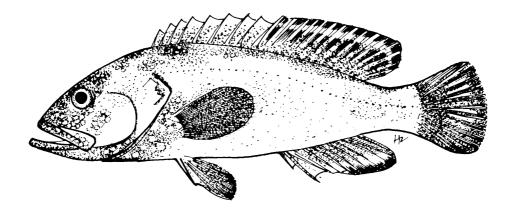
**Habitat and Biology:** Known only from insular localities. Inhabits coral reefs with clear waters at depths of 15-108 m. Most common below 40 m.

**Distribution:** Indo-Pacific.

**Remarks:** *Cephalopholis spiloparaea* is perhaps the most common grouper in the Indo-Pacific below 40 m. It is sometimes confused with *C. aurantia*, but this species has a black line preceding the thin blue-white band on the caudal fin.

سرعرس تحوّس

#### Cephalopholis urodeta (Schneider, 1801)



English Name :Darkfin hindFamily :SERRANIDAELocal Name :Kanfaiy kalhu faanaOrder :PerciformesSize :Max. 28 cmSpecimen :MRS/0102/87

**Distinctive Characters:** Dorsal fin with 9 spines and 14-16 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 17-19 rays. Body depth 2.7-3.3 in standard length. Lateral-line scales 54-68. Preopercle rounded, finely serrate; lower edge fleshy. Subopercle and interopercle usually smooth. Pectoral fins distinctly longer than pelvic fins. Pelvic fins, not reaching anus.

**Colour:** Reddish brown, darker posteriorly. Body sometimes with small pale spots. Pectoral, anal rear parts of dorsal and caudal fins dusky. Two dark spots usually present at the tip of lower jaw.

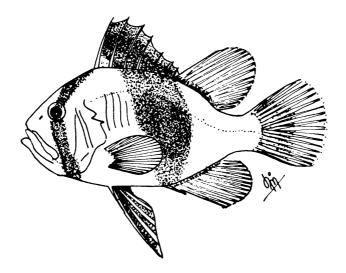
**Habitat and Biology:** Coral reef species that is usually seen in outer reef areas, but also in lagoons, back reefs and on the reef top at depths of 1-60 m. Feeds mainly on fish and crustaceans.

**Distribution:** Indo-Pacific.

**Remarks:** Juveniles of *Cephalopholis urodeta* are sometimes exported as aquarium fish. This species in the Pacific Ocean differs from the Indian by having two oblique white bands in the caudal fin. Previously recorded as *C. nigripinnis*.

## מית *ב*רות מים בילית

#### Diploprion bifasciatum Cuvier, 1828



English Name : Two-barred soapfishFamily :SERRANIDAELocal Name : Huras galhi londhimasOrder :PerciformesSize : Max. 25 cmSpecimen :MRS/0212/88

**Distinctive Characters:** Dorsal fin with 8 spines and 13-16 rays. Anal fin usually with 2 spines and 12-13 rays. Pectoral fin with 17-18 rays. Body depth 2.0-2.4 in standard length. Body oblong and compressed. Pelvic fins very long, reaching beyond spinous portion of anal fin. Preopercular margin coarsely serrate.

**Colour:** Light yellow with two dark brown bars crossing body, one through eye and the other across hind part of body but curving forward to include spiny dorsal.

Habitat and Biology: A coral reef species. Secretes skin toxin grammistin under stress.

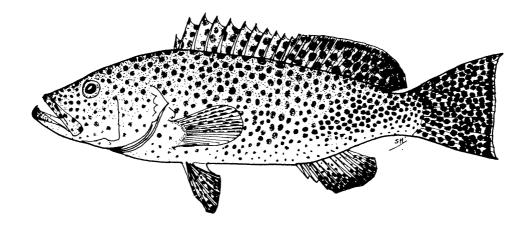
**Distribution:** Indo-West Pacific.

**Remarks:** Both *Diploprion bifasciatum* and the related *Grammistes sexlineatus* are relatively uncommon in the Maldives, but neither could be described as rare. Previously recorded under the family Grammistidae.

# رُيرُ سُو يُ وِجُ سِوِ وَسُو

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#### Epinephelus areolatus (Forsskål, 1775)



English Name : Areolate grouperFamily : SERRANIDAELocal Name : Thijjehi faanaOrder : PerciformesSize : Max. 40 cmSpecimen : MRS/P0139/87

**Distinctive Characters:** Dorsal fin with 11 spines and 15-17 rays. Anal fin usually with 3 spines and 8 rays. Pectoral fin with 17-19 rays. Body depth 2.8-3.3 in standard length. 14 to 16 gill rakers on lower limb. Preopercle serrate with 3-7 large serrae at the angle. Dorsal fin membrane distinctly incised between spines. Caudal fin slightly convex in juveniles, truncate or slightly emarginate in adults.

**Colour:** Pale, covered with numerous dark brown spots. About 8-14 dark spots from last dorsal spine to anus. Spots relatively smaller and more numerous with growth. Caudal margin whitish.

**Habitat and Biology:** Found on sea grass beds or on fine sediment bottoms near rocky reefs and dead corals at depth of 6 to 200 m. Feeds on benthic invertebrates and small fishes.

**Distribution:** Indo-West Pacific.

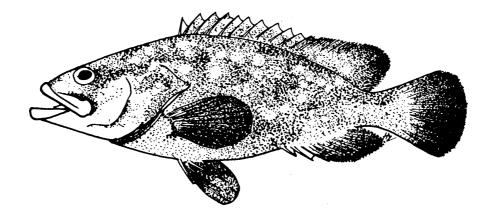
**Remarks:** *Epinephelus areolatus* is a rather attractive species with its pale brown spotting. It may be confused with *E. cholorostigma*, but that species has much smaller spots, and slightly different fin and gill raker counts.

مورقع روس

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#### Epinephelus caeruleopunctatus (Bloch, 1790)



English Name : White-spotted grouperFamily : SERRANIDAELocal Name : Hudhu lah faanaOrder : PerciformesSize : Common to 50 cm; max. 76 cmSpecimen : MRS/0101/87

**Distinctive Characters:** Dorsal fin with 11 spines and 15-17 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 17-19 rays. Body depth 2.9-3.4 in standard length. Mid-lateral part of lower jaw with 3 to 5 rows of teeth. Caudal fin rounded.

**Colour:** Dark grey-brown with many medium sized pale spots. Pelvic fins uniformly dark. In adults (greater than 30 cm) the white spots merge to give a pale mottled pattern.

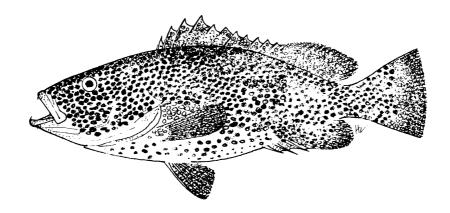
**Habitat and Biology:** Occurs in coral reefs near caves and overhangs at depths up to 60 m. Juveniles sometimes found in tide pools.

**Distribution:** Indo-West Pacific.

**Remarks:** *Epinephelus caeruleopunctatus* is a not uncommon inhabitant of Maldivian coral reefs. This distinctively patterned species is frequently seen by divers.

د و ره ۱۵ مرکز محر مرکز کر

وِرُسُرِدِي فَهُوَ مُرَارِدُ فَهُو مُرَدِي الْمَرْمُونِ الْمَرْمُ وَالْمَرْمُ وَالْمَدُونَ وَالْمُرْمُ وَالْمُ وَالْمُرْمُ وَالْمُرُمُ وَالْمُرْمُ وَالْمُرُمُ وَالْمُرُمُ وَالْمُرُمُ وَالْمُرُمُ وَالْمُرُمُ وَالْمُرُمُ وَالْمُرُمُ وَالْمُرُمُ وَالْمُرُمُ وَالْمُرْمُ وَالْمُرُمُ وَالْمُرُمُ وَالْمُرُمُ وَالْمُرْمُ وَالْمُرْمُ وَالْمُرْمُ وَالْمُرُمُ وَالْمُرْمُ وَالْمُرْمُ وَالْمُرْمُ وَالْمُرْمُ وَالْمُوالِمُ وَالْمُرْمُ وَالْمُولِ وَالْمُرْمُ وَالْمُوالِمُولِمُ وَالْمُولِمُ وَلِمُ وَالْمُولِمُ وَال



English Name :Brown-spotted grouperFamily :SERRANIDAELocal Name :Kulhandhuru faanaOrder :PerciformesSize :Common to 50 cm; max. 75 cmSpecimen :MRS/P0169/87

**Distinctive Characters:** Dorsal fin with 11 spines and 16-18 rays. Anal fin with 3 spines and 8 rays. Anal fin of adults angular or pointed. Pectoral fin with 17-19 rays. Body depth 2.8-3.3 in standard length. 15-18 gill rakers on lower limb. Caudal fin truncate or slightly concave.

**Colour:** Covered with small brown spots. The largest about half pupil diameter. Posterior margin of caudal fin usually white. Eye orange.

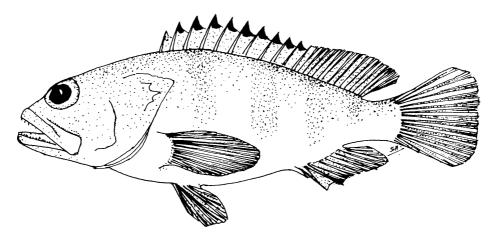
**Habitat and Biology:** Occurs in depths of 4-280 m, in a wide range of habitats, including seagrass beds and mud bottoms, but most common on outer reef slopes. Feeds on small fishes, and crustaceans.

**Distribution:** Indo-West Pacific.

**Remarks:** *Epinephelus cholorostigma* is most likely to be confused with *E. areolatus*. However, the latter species can be distinguished by its larger spots (largest size of the pupil) and also the difference in their sizes.

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الوسرور المرافر المرا



English Name :Blacktip grouper, Red banded grouperFamily :SERRANIDAELocal Name :Raiy galhi faanaOrder :PerciformesSize :Common to 25 cm; max. 40 cmSpecimen :MRS/0304/88

**Distinctive Characters:** Dorsal fin with 11 spines and 15-17 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 18-20 rays. Gill rakers 6-8 on upper limb, 15-17 on lower limb. Body depth 2.8-3.3 in standard length. Interorbital area flat, but dorsal head profile convex. Preopercle round, rear edge finely serrate. Caudal fin slightly to moderately rounded.

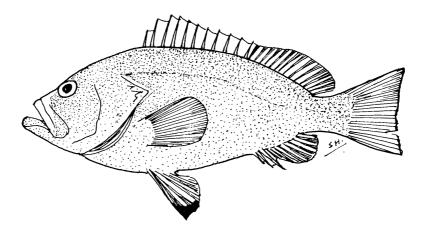
**Colour:** Pink, with red bands of variable intensity on sides and head. Triangular tips of membranes between dorsal spines black. Fins reddish orange, pale yellowish, green, or greenish brown.

**Habitat and Biology:** Occurs on coral reefs from the shore to a depth of 160 m. Feeds on a variety of crustaceans and fishes.

**Distribution:** Indo-Pacific.

**Remarks:** The red bands on sides of *Epinephelus fasciatus* can be turned on and off quite rapidly, but the black tips on the dorsal fin are always present and are a useful aid to identification.

ئزھ ئو توگس



English Name:Blue-and-yellow grouperFamily:SERRANIDAELocal Name:Dhon noo faanaOrder:PerciformesSize:Common to 55 cm; max. 80 cmSpecimen:MRS/P0165/87

**Distinctive Characters:** Dorsal fin with 11 spines and 16-17 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 18-20 rays. Body depth 2.3-2.7 in standard length. Body deep and compressed. Interorbital area convex. Preopercle finely serrate. Posterior nostrils of large adults noticeably larger than anterior ones. Caudal fin truncate.

**Colour:** Dark blue or grey with bright yellow markings. Yellow colour quite extensive in juveniles (including all fins and face) but much reduced in adults. Pelvic and caudal fins tipped with black.

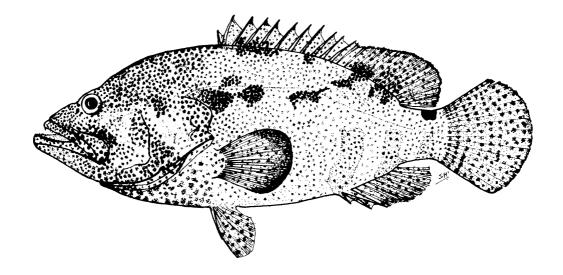
**Habitat and Biology:** Occurs on shallow coral reefs, adults on deeper reefs to depths of 150 m. Feeds on fishes, crustaceans and cephalopods.

Distribution: Indian Ocean.

**Remarks:** With its very distinctive colour pattern, *Epinephelus flavocaeruleus* is one of the easiest *Epinephelus* to identify. It is not so common in Maldives but is occasionally taken by fishermen.

מב 0 כב קומת בת יות נות בל יות

وَرَى هَمْرَارِوَمِ وَمَرَارِوَمِ الْمَرْرِوَرِ ١١ رَمْرَارُومُورُ ١٥ الْرُومُ ١٦ وَلَارِرِرَمْرُوَ هَرَوَرُورُورُورُ وَرَى هَرُودُ وَرَدُرِ سُوهُ وَرَدُ وَرَدُرِ سُوهُ وَرَدُ وَرَدُرِ سُوهُ وَرَدُ وَرَدُرَ مُرَوَدُ وَرَدُرِ سُوهُ وَرَدُ وَرَدُرَ مُرْوَدُ وَرَدُرِ سُوهُ وَرَدُورُ سُوهُ وَرَدُ وَرَدُرُ وَرَدُورُ مُرَدُونُ وَرَدُرُ وَرَدُورُ وَرَدُورُ وَرَدُورُ وَرَدُورُ وَرَدُورُ وَرَدُورُ وَرَدُورُ وَمَرَدُونُ وَرَدُورُ وَمَرَدُونُ وَرَدُورُ وَمَرَدُونُ وَرَدُورُ وَمَرَدُونُ وَمِرْدُونُ وَمَرَدُونُ وَمَرْدُونُ وَرَدُورُ وَمَرَدُونُ وَرَدُورُ وَرَدُورُ وَمَرَدُونُ وَرَدُورُ وَمَرَدُونُ وَرَدُورُ وَمَرَدُورُ وَرَدُورُ وَالْمُورُ وَالْمُورُورُورُ وَالْمُورُورُ وَالْمُورُورُورُ وَالْمُورُ وَرَدُورُ وَالْمُورُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالِمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُولُورُ وَالْمُورُورُ وَال



English Name:Brown-marbled grouperFamily:SERRANIDAELocal Name:Kas faanaOrder:PerciformesSize:Common to 70 cm; max. 95 cmSpecimen:MRS/P0129/87

**Distinctive Characters:** Dorsal fin with 11 spines and 14-15 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 18-20 rays. Body depth 2.6-2.9 in standard length. Total gill rakers 29 to 31. Lateral line scales 53 to 58. Preopercle finely serrate. Caudal fin rounded.

**Colour:** Mottled brown. Many small dark spots on body and fins and large irregular dark blotches on head and body. Dark saddle on caudal peduncle. Jaws and chin with transverse pale bands.

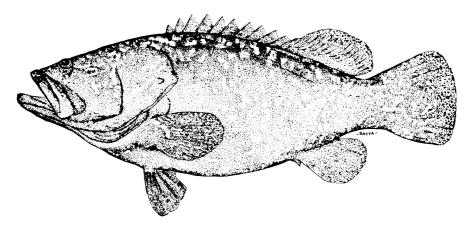
**Habitat and Biology:** Occurs on shallow coral reefs to depths of 60 m. Adults often in caves. Juveniles are sometimes found in seagrass areas. Feeds on fishes, crustaceans and cephalopods.

**Distribution:** Indo-Pacific.

**Remarks:** *Epinephelus fuscoguttatus* is often confused with *E. polyphekadion* (previously known as *E. microdon*), which has fewer pectoral fin rays (16 or 17), smooth convex dorsal head profile, interspinous dorsal fin membranes less deeply incised, and a less reddy-brown colouration.

ر مشوي سُر

#### Epinephelus lanceolatus (Bloch, 1790)



English Name : Giant grouperFamily :SERRANIDAELocal Name :Mudu faanaOrder :PerciformesSize :Max. 2.3 mSpecimen :MRS/P0479/97

**Distinctive Characters:** Dorsal fin with 11 spines and 14-16 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 18-20 rays. Body depth 2.4-3.4 in standard length. Body robust. Lateral-line scales with branched tubules. Preopercle sub-angular, finely serrate, the corners rounded. Upper edge of operculum convex. Pelvic fins not reaching anus. Caudal fin rounded.

**Colour:** Small juveniles yellow with irregular broad black bars on body. Small adults with irregular white or yellow spots on the black areas and fins with irregular black spots. Adults dark brown with faint mottling, the fins with numerous small black spots. Large adults dark brown, fins darker.

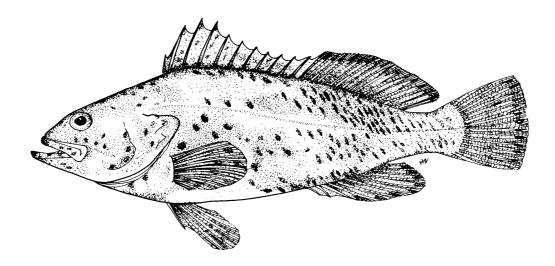
**Habitat and Biology:** Demersal, often found in shallow waters but also at depths of 100 m. Commonly seen in caves on coral reefs and around wrecks. Feeds on crustaceans and fish.

**Distribution:** Indo-Pacific.

**Remarks:** *Epinephelus lanceolatus* is one of the two largest species of groupers in the world (the other is *E. itajara* of the Atlantic and eastern Pacific oceans). It is not often caught in the Maldives.

1127 1220

#### Epinephelus longispinis (Kner, 1865)



English Name :Longspine grouper, Streakyspot grouperFamily :SERRANIDAELocal Name :Kooru faanaOrder :PerciformesSize :Max. 60 cmSpecimen :MRS/P0117/87

**Distinctive Characters:** Dorsal fin with 11 spines and 16-17 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 17-19 rays. Body depth 2.8-3.3 in standard length. Ventral edge of maxilla with a "step" in subadults. Preopercle rounded with a slight notch, below which serrae enlarged. Third or fourth dorsal spine longer than the longest dorsal soft ray. Caudal fin rounded.

**Colour:** Pale brown. Covered with medium sized dark reddish spots. These are more abundant and elongated posteriorly. Pectoral and pelvic fins dusky, with a few small dark spots.

**Habitat and Biology:** Usually found on coral reefs or rocky areas and occasionally on sandy bottom at depths of up to 70 m. Feeds mainly on crustaceans and rarely on fish and squids.

**Distribution:** Indian Ocean and Indonesia.

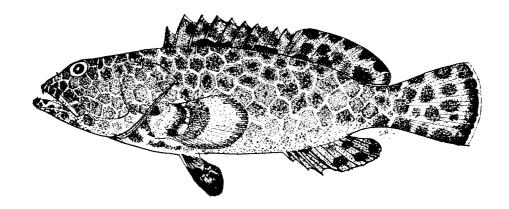
**Remarks:** Epinephelus longispinis is rather easy to identify because of its very distinctive streaky spotting.

מ ז*ת צ*יות

وَرْدَ هُمَّنَهِ وَمِ ثَمْ مُرْدَدُهِ مَرْدَدُهِ الْمَرْمَدُوهُ وَلَا مُرْدَدُهُ وَلَا مُرْدَدُهُ وَرُدُ وَرُدُ وَرُدُ وَرُدُ وَرُدُ وَرُدُ وَكُومُ وَرَدُ وَرَدُ وَكُومُ وَرَدُ وَكُومُ وَرَدُ وَكُومُ وَرَدُ وَكُومُ وَرَدُ وَكُومُ وَكُومُ وَكُومُ وَكُومُ وَكُومُ وَرَدُ وَكُومُ وَرَدُ وَكُومُ وكُومُ وكُو

وَرَيْ مُوَدَّرُ مُودَدِّرٍ وَسِ هُوْرِمُودَ وَوَ مَرِيَهُ فَوَ مَرْهُ هُوْ مُومُ مُودُكُودُ مِرْمُدُ مِرِعَدُ وَرُقَ وَرَهُ مُودُودُ رُهُوسِ مُورِعَدُ فَوَ تَتَحَدُّرُشُ فَرِولَ ذُوْ. وَزُكُو رُبِّ وِسِولَ دُمَّدُ وَرُدُ رِي سِيسَوسَ وَمُرْ عَلَيْ وَوَرَثُ " تَاثَمُونُ مُنْ الْمِيسَادُةُ .

#### Epinephelus macrospilos (Bleeker, 1855)



English Name :Snubnose grouper, Bigspot grouperFamily :SERRANIDAELocal Name :Fijjehi faanaOrder :PerciformesSize :Max 51 cmSpecimen :MRS/P0159/87

**Distinctive Characters:** Dorsal fin with 11 spines and 15-17 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 17-20 rays. Body depth 3.0-3.6 in standard length. Total gill rakers 21 to 24. Body robust. Lower jaw strongly projecting. Inter-orbital area flat or slightly concave. Caudal fin rounded.

**Colour:** Head and body with round to polygonal dark brown spots, variable in size (juveniles with larger spots). Median fins yellowish, with blackish brown spots. Soft dorsal, caudal and anal fins with pale margin. Underside of jaw usually with two dark spots.

**Habitat and Biology:** Occurs on coral reefs to depths of at least 44 m. Feeds on crustaceans (mainly crabs), fishes, octopuses and squids.

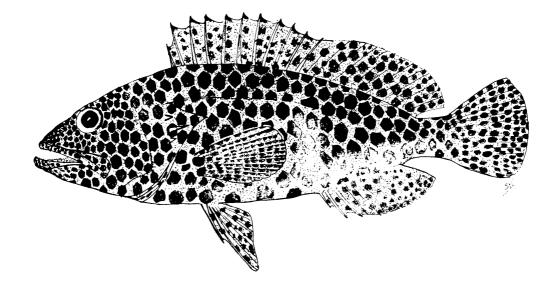
Distribution: Indo-Pacific.

**Remarks:** Specimens of *Epinephelus macrospilos* from Western Indian Ocean differ from those elsewhere by having dark spots on underside of jaw, and the dark spots on the head and body are larger and close-set. Previously misidentified as *E. faveatus* in the Catalogue of Fishes of the Maldives, Vol. 2, page 294.

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#### Epinephelus merra Bloch, 1793



English Name :Honeycomb grouperFamily :SERRANIDAELocal Name :Lah faanaOrder :PerciformesSize :Max. 32 cmSpecimen :MRS/0052/86

**Distinctive Characters:** Dorsal fin with 11 spines and 15-17 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 16-18 rays. Body depth 2.8-3.3 in standard length. Body oblong, somewhat compressed. Maxillary extending behind the hind border of eye. Pectoral fin shorter than head. First dorsal spine shorter than others, dorsal rays longer than dorsal spines. Caudal fin rounded.

**Colour:** Body, head and all fins with dark brown spots, with narrow pale inter-space. Dots on fins and lower sides of body more widely spread. Pectoral fin covered with small black spots that are largely confined to the rays; outer half of the fin dark.

**Habitat and Biology:** A shallow water coral reef species typically found on patch reefs in lagoons usually at depths of less than 20 m. Feeds primarily on crustaceans (crabs and shrimps) but also fishes.

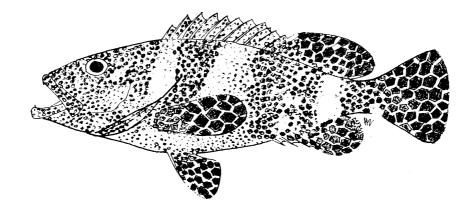
Distribution: Indo-Pacific.

**Remarks:** *Epinephelus merra* is the most common grouper on protected shallow lagoon reefs. It is also one of the "reticulated groupers", which comprise 9 shallow water coral reef species that have a rounded caudal fin and a close-set dark brown spots with pale interspaces forming a network on the body. However, *E. merra* can be distinguished from others by its pectoral fin pattern.

ゲジカラ

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#### Epinephelus miliaris (Valenciennes, 1830)



English Name :Netfin grouper, Honeyfin grouperFamily :SERRANIDAELocal Name :Kurehi faanaOrder :PerciformesSize :Max. 53 cmSpecimen :MRS/P0170/87

**Distinctive Characters:** Dorsal fin with 11 spines and 16-17 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 17-18 rays. Body depth 2.8-3.2 in standard length. Maxillary reaching a vertical at rear edge of orbit. Preopercle finely serrated. Sides of lower jaw with 2 rows of teeth. Third or fourth dorsal spine longest, longer than the longest dorsal soft ray. Caudal fin rounded.

**Colour:** Brownish or reddish brown. Body and spiny dorsal with numerous small, polygonal brown spots separated by network of pale lines. Darker bands visible on sides. Fins with large dark spots.

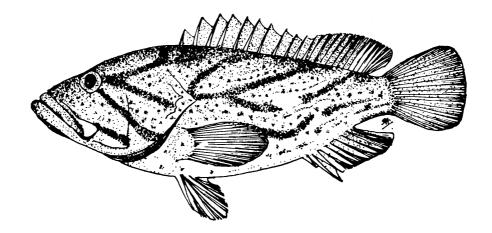
**Habitat and Biology:** Adults occur on coral reefs at depths of 18 to 180 m. Juveniles found on muddy bottoms, seagrass beds and coral reefs to depths of 16 m. Feeds on crustaceans, gastropods and fishes.

**Distribution:** Indo-West Pacific.

**Remarks:** Although *Epinephelus miliaris* has a wide distributional range, it is known from relatively few localities. The specimen on which this report is based constituted the first record from the Maldives. It was caught by longline (depth 200 m) outside Hulhule, during fishing trials conducted by R. V. "Farumas", Reef Fishing Project.

ر بخرر تو سر ما بخرر تو سر

#### Epinephelus morrhua (Valenciennes, 1833)



English Name :Comet grouperFamily :SERRANIDAELocal Name :Dhunthari faanaOrder :PerciformesSize :Max. 73 cmSpecimen :MRS/P0303/88

**Distinctive Characters:** Dorsal fin with 11 spines and 14-15 rays. Anal fin with 3 spines and 7-8 rays. Pectoral fin with 7-18 rays. Body depth 2.8-3.1 in standard length. Maxillary not reaching past eye. Preopercle finely serrated with 2 to 5 enlarged serrae at angle. Sides of lower jaw with 2 rows of teeth. Caudal fin slightly to moderately rounded. Dorsal fin membrane distinctly indented between spines.

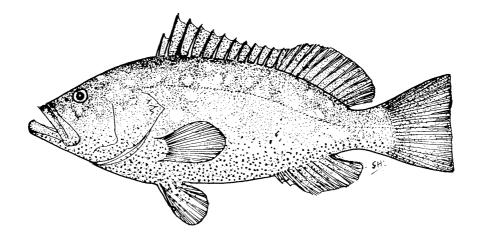
**Colour:** Light brownish with dark brown bands. A dark band from upper edge of opercle to blotch below dorsal fin and dark bands on head as illustrated.

**Habitat and Biology:** A deep water species that is usually found in depths of 80 to 370 m.

**Distribution:** Indo-West Pacific.

**Remarks:** *Epinephelus morrhua* is a large deepwater grouper. Several specimens were caught in 80-100 m depth by R.V. 'Farumas' fishing with longline by day along the eastern side of North Malé Atoll.

و شره بروس



English Name :White-blotched grouperFamily :SERRANIDAELocal Name :Baafothi faanaOrder :PerciformesSize :Max. 1 mSpecimen :MRS/P0168/87

**Distinctive Characters:** Dorsal fin with 11 spines and 15-17 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 18-20 rays. Body depth 2.6-2.9 in standard length. Preopercle finely serrated. Inter-orbital area distinctly convex, dorsal profile of head slightly convex. Membranes between dorsal spines not incised. Caudal fin truncate, round in juveniles.

**Colour:** Pale brownish-grey, with white blotches above and small dark reddish spots below. After death, becomes darker grey and white blotches disappear.

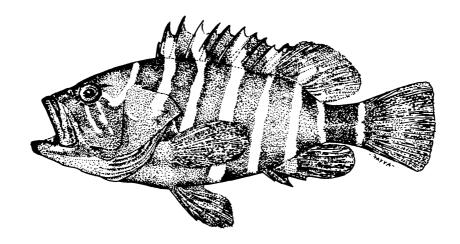
**Habitat and Biology:** Occurs in deeper waters to depths of 90 m. Juveniles are found on shallower inshore coral reefs. Feeds on fish and crustaceans.

Distribution: Indian Ocean.

**Remarks:** In Maldives, *Epinephelus multinotatus* is only rarely caught by local fishermen. The first records were from R. V. 'Farumas' Reef Fishing Survey, during which few specimens were caught inside atoll basins.

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#### Epinephelus octofasciatus Griffin, 1926



English Name :Eightbar grouperFamily :SERRANIDAELocal Name :Kalhu faanaOrder :PerciformesSize :Max. 80 cmSpecimen :MRS/P0328/88

**Distinctive Characters:** Dorsal fin with 11 spines and 14-15 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 18-19 rays. Body depth 2.2-2.7 in standard length. Preopercle angular, the serrae at angle enlarged. Upper edge of operculum, dorsal head profile convex. Maxilla reaches to or rear half of eye. Pelvic fins subequal to or larger than pectoral fin. Caudal fin rounded.

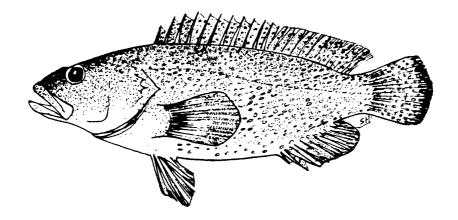
**Colour:** Brown with 8 broad dark brown bars; first on nape, second at dorsal fin origin, covering first 2 dorsal spines. Pelvic fins, distal half of soft dorsal and anal fins dark brown. Large individuals almost black.

Habitat and Biology: Occurs on deep reefs from depths of 150 to 300 m.

**Distribution:** Indo-West Pacific.

**Remarks:** *Epinephelus octofasciatus* was previously misidentified as *E. septemfasciatus* in the Catalogue of Fishes of the Maldives. Vol. 3, page 422. The specimen recorded there was apparently the first record of this species from the Maldives and was caught by longline in 170 m near K. Giraavaru in October 1988 by R. V. 'Farumas'.

ما توقوس



English Name :White-streaked grouperFamily :SERRANIDAELocal Name :Kirulhi faanaOrder :PerciformesSize :Common to 25; max. 40 cmSpecimen :MRS/0302/88

**Distinctive Characters:** Dorsal fin with 11 spines and 14-16 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 15-17 rays. Body depth 2.7-3.2 in standard length. Nostrils sub-equal. Opercular flap obtuse, the upper edge very convex. Membranes between dorsal spines incised. Caudal fin rounded.

**Colour:** Dark grey-brown. Numerous small white spots on body and fins, tending to irregular white stripes in adults. Caudal fin with narrow white terminal band and broad black sub-terminal band.

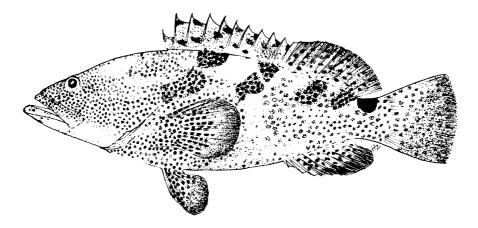
**Habitat and Biology:** Occurs in shallow water on coral reefs, including reef patches in lagoons, at depths of 5 to 20 m.

**Distribution:** Indo-Pacific.

**Remarks:** *Epinephelus ongus* is a medium-sized grouper, which appears to be relatively uncommon in the Maldives as it is only rarely caught by reef fishermen or seen by divers.

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English Name:Camouflage grouperFamily:SERRANIDAELocal Name:Kula faanaOrder:PerciformesSize:Common to 40 cm; max. 75 cmSpecimen:MRS/P0148/88

**Distinctive Characters:** Dorsal fin with 11 spines and 14-15 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 18-19 rays. Body depth 2.7-3.1 in standard length. Dorsal head profile smoothly convex. Interorbital area flat. Mid-lateral body scales mostly ctenoid, not covered by skin. Rear nostril diameter about twice diameter of front nostrils. Caudal fin rounded.

**Colour:** Mottled brown, covered with small dark spots. Head and body with fairly distinct dark blotches, blotch on top of caudal peduncle brownish-black and conspicuous.

**Habitat and Biology:** Occurs in clear water on coral reefs, either in lagoons or on outer reefs to depths of 50 m. Feeds mostly on benthic crustaceans such as crabs, sometimes on fishes, squid and snails.

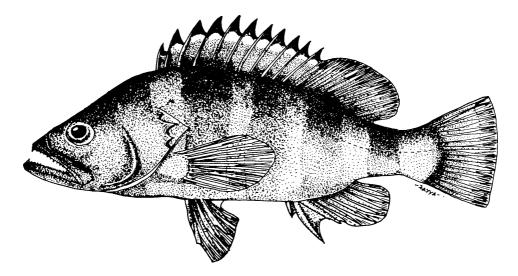
**Distribution:** Indo-West Pacific.

**Remarks:** *Epinephelus polyphekadion* is easily confused with *E. fuscoguttatus*. It can, however, be distinguished on the basis of lower gillraker and pectoral ray counts. This species was previously recorded as *E. microdon*, in the Catalogue of Fishes of the Maldives, Vol. 2, page 302.

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#### Epinephelus retouti Bleeker, 1868



English Name :Red-tipped grouperFamily :SERRANIDAELocal Name :Dhon faanaOrder :PerciformesSize :Common to 35 cm; max. 50 cmSpecimen :MRS/P0379/92

**Distinctive Characters:** Dorsal fin with 11 spines and 16-17 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 19-20 rays. Body depth 2.5-3.1 in standard length. Dorsal head profile slightly convex. No scales on maxilla. Nostrils sub-equal. Caudal fin truncate to convex.

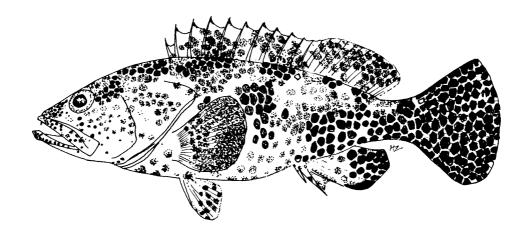
**Colour:** Reddish. Each scale with a dark basal spot. Usually five faint dark bars on body. Margin of dorsal fin and upper edge of caudal fin with a dusky border. Juveniles with dorsal part of head dark brown with 4 irregular transverse whitish bands across dorsal surface.

**Habitat and Biology:** Adults found on coral reefs and outer reef slopes in depths of 70-220 m. Juveniles occur in depths of 20-40 m.

Distribution: Indo-Pacific.

**Remarks:** *Epinephelus retouti* is very similar in appearance to *E. fasciatus*. It can be distinguished from *E. fasciatus* by having a longer snout; brown instead of black dorsal tips; a dark dorsal margin to the caudal; a nearly truncate; and depth distribution.

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English Name :Foursaddle grouperFamily :SERRANIDAELocal Name :Asdhaanu faanaOrder :PerciformesSize :Max. 31 cmSpecimen :MRS/103/87

**Distinctive Characters:** Dorsal fin with 11 spines and 14-16 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 17-19 rays. Body depth 3.1-3.6 in standard length. Dorsal head profile convex. Inter-orbital area flat to concave. Caudal peduncle depth distinctly less than length of second anal spine. Caudal fin rounded. Body scales ctenoid except for those on belly.

**Colour:** Brownish. Body covered with dark spots forming a pale mesh. Front of head with small dark spots. 3 or 4 dark dorsal blotches (first at base of last dorsal spine, last on caudal peduncle).

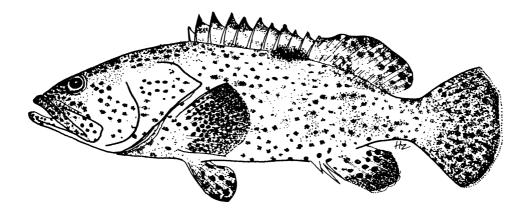
Habitat and Biology: Found on shallow water coral reefs.

Distribution: Indo-Pacific.

**Remarks:** *Epinephelus spilotoceps* is very common in the Maldives. It is well camouflaged with its pale colouration as it sits among the corals and coral rubble, in shallow water.

### هُ مُصْوِقِرٌ شَرَقِيْ سَرُ

#### Epinephelus tauvina (Forsskål, 1775)



English Name :Greasy grouperFamily :SERRANIDAELocal Name :Londhi faanaOrder :PerciformesSize :Common to 45 cm; max. 75 cmSpecimen :MRS/P0173/87

**Distinctive Characters:** Dorsal fin with 11 spines and 13-16 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 18-19 rays. Body depth 3.0-3.6 in standard length. Maxilla reaches well past eye. 3 or 4 rows of teeth on mid-lateral part of lower jaw. Caudal fin rounded. Body scales cycloid, except for a small patch at the end of pectoral fin.

**Colour:** Brown-grey with many orange brown spots covering body and fins. Dark blotch may be present at base of last dorsal spine.

**Habitat and Biology:** Primarily a coral reef species occurring in depths of 1 to at least 50 m. Juveniles found in tide pools on the reef flat. Feeds mainly on fish.

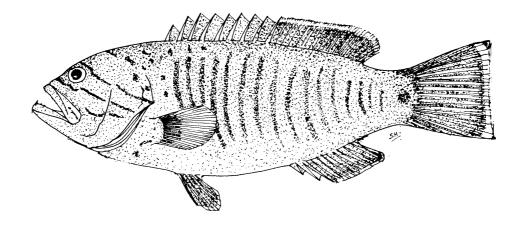
**Distribution:** Indo-Pacific.

**Remarks:** *Epinephelus tauvina*, despite its unappetising English name, is a prime food fish and is the subject of intensive cage culture in some countries. It can be easily distinguished from similar species by its shape, pattern of spotting and very long maxilla.

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#### Gracila albomarginata (Fowler and Bean, 1930)



English Name :Masked grouperFamily :SERRANIDAELocal Name :Boakuda faanaOrder :PerciformesSize :Max. 38 cmSpecimen :MRS/0321/88

**Distinctive Characters:** Dorsal fin with 9 spines and 14-16 rays. Anal fin with 3 spines and 9-10 rays. Pectoral fin with 17-19 rays. Body depth 2.6-3.3 in standard length. Head small. Distal part of maxilla of adults with a prominent step or hook-like process on lower edge. Dorsal fin membranes not incised between the spines. Caudal fin truncate.

**Colour:** Dark brown but with purple-blue markings. About 4 diagonal lines on head, about 14 narrow chevrons on sides and several spots on 'neck'. Rear of pectoral fins, edge of soft dorsal and caudal fins orange. Edge of spiny dorsal, pelvics and anal violet. Juveniles purple brown with orange bands.

**Habitat and Biology:** An active grouper, which roams over the reef. Usually found on outer reef areas deeper than 15 m. Feeds mainly on fish.

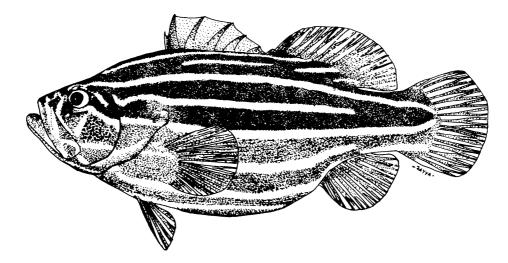
**Distribution:** Indo-Pacific.

**Remarks:** *Gracila albomarginata* is a moderately common reef fish, although it is rarely caught by fishermen. It usually occurs in about 15-25 m, swimming slowly a metre or two above the reef.

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### Grammistes sexlineatus (Thunberg, 1792)



English Name :Golden-striped soapfishFamily :SERRANIDAELocal Name :Ran rongu londhimasOrder :PerciformesSize :Max. 28 cmSpecimen :MRS/0211/88

**Distinctive Characters:** Dorsal fin with 7 spines and 13-14 rays. Anal fin with 2 spines and 9-10 rays. Pectoral fin with 16-18 rays. Body depth 2.3-2.8 in standard length. Body oblong. A small fleshy flap on tip of chin. The spinous portion of dorsal fin separated from the soft portion by a deep notch. Margins of subopercle and inter-opercle smooth. Caudal fin rounded.

**Colour:** Body dark brown or black with thin, pale stripes. The number of stripes tends to increase with age, and they also tend to break up into a series of dashes.

**Habitat and Biology:** Inhabits coral reefs and rocky bottoms where there is good shelter, often in surprisingly shallow water. Feeds mainly on fishes.

**Distribution:** Indo-West Pacific.

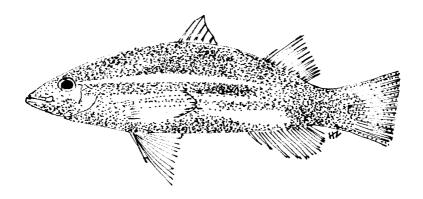
**Remarks:** *Grammistes sexlineatus*, like other soapfishes secretes copious quantities of mucus (grammistin), particularly when disturbed. Previously recorded under the family Grammistidae.

### ئرشر خرسر دو خرس وروك سو

مرير سرسور وروي ووري درون درون مردون موروري

وَاسِرُورْ مُرْكَانِكُمُ وَوَرُدُ رُورُو مُرْدُ زَيْرَاتُ سِوَدُرُرُ لُورُزُرٌ وَسُورً "مُرْرُخْرِدُ وَسُو"

#### Liopropoma africanum (Smith, 1954)



English Name :African bassletFamily :SERRANIDAELocal Name :Africa faanaOrder :PerciformesSize :Max. 8 cmSpecimen :MRS/0201/88

**Distinctive Characters:** Dorsal fin divided. 14 pectoral rays. Typically 6-13 gill rakers. Third dorsal spine longest. Fleshy edge of corner and ventral margin of Preopercle with 12-16 small pores. Caudal fin slightly emarginate.

**Colour:** Dull red brown. 5 darker body stripes with pale narrow interspaces. Second inter-space brightest. Stripes becoming yellow on head. Caudal peduncle yellowish, fins pale yellowish.

Habitat and Biology: Lives fairly deep on coral reefs invariably in the recesses of caves and crevices.

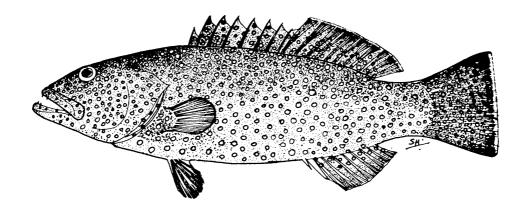
Distribution: Western Indian Ocean.

**Remarks:** *Liopropoma africanum* has only been reported once before from the Maldives, by Randall and Taylor 1988. The specimen on which this report is based was collected by Randall, Shiham Adam and Anderson from an area of broken coral in 35 m at K. Maniyafushi.

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وَوَرَبْ مِرْوَرِ وَمُسْوَمْ بِهُرِينَ بَرْدِ مَسْ الْوَلْ وِيتُرْدُونَ وِرَثَرْمَرُ وَمَرَدُ وَوَرَبَ وَرَمَر وِوَرَثْ مِدَّ فِرْوَرِ مَرْدَدُ مَرْدُونِ مِوْدُ وِوَرْدُ سَنَدِيرُهِ وِرْ مُرَدُونِ فَرَدُ وَمِرْ وَمَرَدُون وَمِرْوَدِهُ وَرَدْمُ وَمُرْدُ " ذَوْمِمَا وُرَدُ " مِدْرُسُورِ وَدِهُ مِرْدُوْدِ



English Name :Squaretail coralgrouperFamily :SERRANIDAELocal Name :Olhu faanaOrder :PerciformesSize :Max. 60 cmSpecimen :MRS/P0135/87

**Distinctive Characters:** Dorsal fin with 7 or 8 spines and 10-12 rays. Anal fin with 3 spines and 8 rays. Pectoral fin 15-17 rays. 2-7 developed gill raker on the lower limb. Body depth 2.9-3.9. Body elongate and robust. Inter-orbital area with small embedded scales. Base of spinous part of dorsal fin sub-equal to that of soft-rayed part. Caudal fin truncate to slightly emarginate.

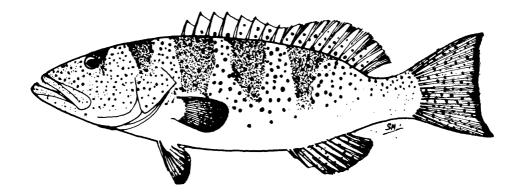
**Colour:** Grey-brown. Numerous relatively large (equal in size to pupil) dark edged blue spots covering body and median fins. Caudal fin often with blackish sub-marginal band.

Habitat and Biology: Occurs in lagoons and seaward reefs from 2 to 20 m. Feeds mainly on fishes.

**Distribution:** Indo-Pacific.

**Remarks:** *Plectropomus areolatus* can be distinguished from other species of *Plectropomus* found in Maldives by its truncate caudal fin, and the lack of vertical elongated spots on sides or dark dorsal saddles.

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English Name :Black-saddled coralgrouperFamily :SERRANIDAELocal Name :Kula olhufaanaOrder :PerciformesSize :Max. 1.2 mSpecimen :MRS/P0163/87

**Distinctive Characters:** Dorsal fin with 7 or 8 spines and 10-12 rays. Anal fin with 3 spines and 8 rays. Pectoral fin 16-18 rays. Body depth 2.9-3.9. Body elongate, robust. Inter-orbital area flat and naked. Preopercle broadly rounded. Hind nostril much longer than front nostril. Caudal fin emarginate.

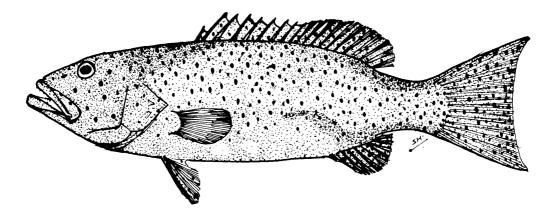
**Colour:** Two colour phase; both have 5 dark brown or black saddles, (although these may not be visible in some dark phase individuals). The pale phase is white with yellow fins and variable numbers of scattered dark-edged blue spots. The dark phase is brown red with many small dark-edged blue spots.

**Habitat and Biology:** Occurs on coral reefs from 4 to 90 m, most often in passes, but also seen in lagoon and seaward reefs with rich coral growth. Feeds exclusively on fishes, including other groupers.

**Distribution:** Indo-Pacific.

**Remarks:** There has been confusion in the identification of *Plectropomus laevis* in the past because of its 2 colour phases. However, it can be easily identified because both phases have 5 dark dorsal saddles.

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English Name :Roving coralgrouperFamily :SERRANIDAELocal Name :Dhon olhu faanaOrder :PerciformesSize :Max. 63 cm; 1.2 m (in the Red Sea)Specimen :MRS/P0126/87

**Distinctive Characters:** Dorsal fin with 7 or 8 spines and 10-12 rays. Anal fin with 3 spines and 8 rays. Pectoral fin 15-16 rays. Body depth 2.9-3.9 in standard length. Body elongate, robust. Rear nostril of adults larger than anterior nostril. First or second anal spines embedded. Caudal fin emarginate.

**Colour:** Red-brown, with numerous small dark-edged blue spots. Some spots on sides vertically elongate, and some on head diagonally elongate (few spots on head). Pelvic fins with blue spots.

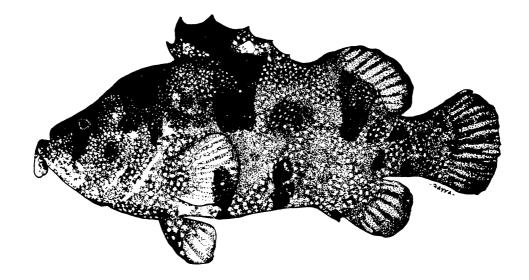
**Habitat and Biology:** Occurs on or near coral reefs at depths of 15 to 150 m.

**Distribution:** Indo-Pacific.

Remarks: Plectropomus pessuliferus has been characterised as an uncommon species. However, it appears fairly regularly at Male fish market. A separate sub-species is recognised from the Red Sea on the basis of colour pattern.

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#### Pogonoperca ocellata Günther, 1859



English Name :Bearded soapfishFamily :SERRANIDAELocal Name :Saiboani faanaOrder :PerciformesSize :Max. 33 cmSpecimen :MRS/0469/97

**Distinctive Characters:** Dorsal fin with 8 spines and 12 or 13 rays. Anal fin with 3 spines and 8 rays. Pectoral rays 17 or 18. Body depth 2.2-2.7 is standard length. A large, flat, fleshy help oriented transversely on tip of chin. Caudal fin rounded.

**Colour:** Brown, somewhat blotched, with numerous dark edged small white spots on head, body and basally on fins. 4 triangular black saddles on back, the first on nape and the last on caudal peduncle.

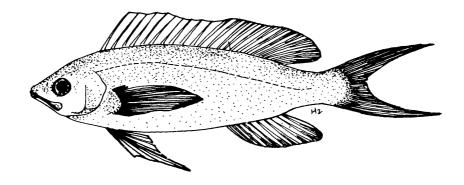
**Habitat and Biology:** Occurs on coral reefs. Tends to hide in caves or beneath ledges by day but emerges at dusk. Carnivorous.

Distribution: Western Indian Ocean.

**Remarks:** *Pogonoperca ocellata*, like other soap fishes, secretes copious quantities of mucus (grammistin) specially when disturbed. Previously recorded under the family Grammistidae. This species is more often referred to as *P. punctata*, and name now reserved for the Pacific species.

سئوپر حکسر بڑ سکر

#### Pseudanthias cooperi (Regan, 1902)



English Name :Silverstreak anthiasFamily :SERRANIDAELocal Name :Dhon burekiOrder :PerciformesSize :Max. 15 cmSpecimen :MRS/0062/86

**Distinctive Characters:** Dorsal fin with 10 spines and 15-17 rays. Anal fin with 3 spines and 7-8 rays. Pectoral rays 18-20 rays. Body depth 2.8-3.3 in standard length. Compressed and elongated body. Base of caudal and pectoral covered with scales.

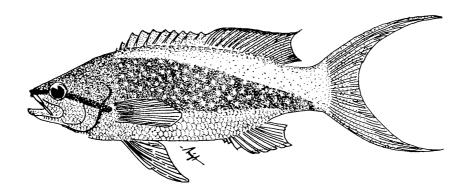
**Colour:** Dorsal pink becoming yellow on lower sides. Dorsal spines and anterior rays pinkish. Caudal fin of females deeply emarginate and lobe tips bright red and in males caudal fin lunate and red with narrow lavender upper and lower margins and a short red bar on side of the body. No violet lines above.

Habitat and Biology: Occurs on coral reefs to depths of 60 m. Feeds on zooplankton.

**Distribution:** Indo-Pacific.

**Remarks:** *Pseudanthias cooperi* is often mis-identified as *Pseudanthias taeniatus* Klunzinger, a Red Sea species. *P. kashiwae* Tanaka, is a synonym. A popular aquarium fish.

#### Pseudanthias evansi (Smith, 1954)



English Name : Yellowback anthiasFamily : SERRANIDAELocal Name : Mathi dhon burekiOrder : PerciformesSize : Max. 13 cmSpecimen : MRS/0296/88

**Distinctive Characters:** Dorsal fin with 11 spines and 16 rays or 10 spines and 16-18 rays. Anal fin with 3 spines and 8 rays. Pectoral rays 16-18 rays. Body depth 3.1-3.4 in standard length. Upper lip of males thickened at symphysis, forming a protuberant papilla. Dorsal and anal fin heavily scaled at their bases and well out onto fins. No prolonged spines. Caudal fin deeply forked.

Colour: Yellow above a line from origin of dorsal fin to lower base of caudal fin; abruptly violet below.

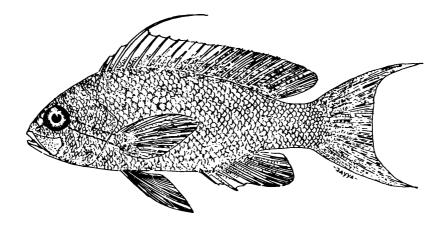
**Habitat and Biology:** A common coral reef species. Occurs at depths less than 40 m. During daytime, it moves over reef patches into the water column. Feeds on planktons.

Distribution: Indian Ocean.

**Remarks:** *Pseudanthias evansi*, is one of the most beautifully coloured anthiids. It is a very popular aquarium fish.

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#### Pseudanthias squamipinnis (Peters, 1855)



English Name :Scalefin anthiasFamily :SERRANIDAELocal Name :Kashikeyo masOrder :PerciformesSize :Max. 15 cmSpecimen :MRS/0297/88

**Distinctive Characters:** Dorsal fin with 10 spines and 16-18 rays. Anal fin with 3 spines and 6-7 rays. Pectoral fin 16-18 rays. Body depth 2.4-3.1 in standard length. Auxiliary scales present, fins heavily scaled. No papillae on edge of orbit, margin of sub-opercle and inter-opercle serrate. Third dorsal spine prolonged in adult females, greatly elongate in males. Caudal fin lunate.

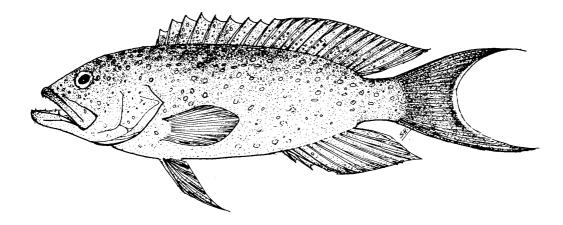
**Colour:** Females orange-yellow, the scales rimmed with lavender except ventrally. Males fuchsia, the scales on side of body with a yellow spot.

**Habitat and Biology:** A common coral reef species. Occurs at depths less than 35 m. Forms larger aggregations in-front of drop-offs in the water column. Feeds on plankton in the evening sun. Females much commoner than males.

Distribution: Indo-Pacific.

**Remarks:** *Pseudanthias squamipinnis* is the most common species of the genus on shallow reefs. Like other anthiids it is a popular aquarium fish.

ئىرئىقۇۇپ ر



English Name:White-edged lyretailFamily:SERRANIDAELocal Name:Kandu raiy haaOrder:PerciformesSize:Max. 55 cmSpecimen:MRS/P0128/87

**Distinctive Characters:** Dorsal fin with 9 spines and 14 rays. Anal fin with 3 spines and 8 rays. Pectoral fin 17-19 rays. Body depth 2.8-3.5 in standard length. Body oblong. Pelvic fins usually not reaching anus. Midlateral body scales ctenoid, without auxiliary scales. Caudal fin of adults very lunate.

**Colour:** Body brownish-orange or pale red with irregular red bands alternating with yellow lines. Rear margin of caudal fin with narrow white margin. Pectorals yellowish. Other fins same colour as body.

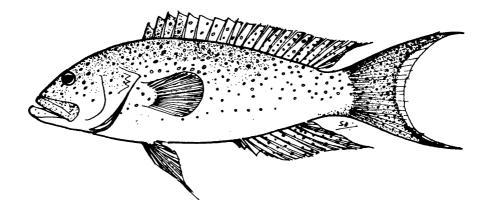
Habitat and Biology: Occurs on coral reefs at depths of 4-200 m. Feeds mainly on fish.

**Distribution:** Indo-West Pacific.

**Remarks:** *Variola albimarginata* is often mis-identified as *V. louti*. It can be readily recognised by the narrow white margin to the tail; *V. louti* has a broad yellow margin to the caudal and other median fins.

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English Name :Yellow-edged lyretail; Moontail sea bassFamily :SERRANIDAELocal Name :Kandu haaOrder :PerciformesSize :Max. 81 cmSpecimen :MRS/P0162/87

**Distinctive Characters:** Dorsal fin with 9 spines and 13-15 rays. Anal fin with 3 spines and 8 rays. Pectoral fin 16-19 rays. 15-18 lower gill rakers. Body depth 2.8 – 3.3 in standard length. Body oblong. Anterior interspinous membranes of dorsal fin slightly incised. Mid-lateral body scales ctenoid, without auxiliary scales. Pelvic fins of adults reach past anus. Caudal fin of adults very lunate.

**Colour:** Yellowish brown to orange-red. Head, body and median fins with numerous small irregular spots or streaks of pale blue, lavender or pink. Rear margins of median fins broadly yellow. Juveniles with irregular black stripe on upper side of head and body.

**Habitat and Biology:** Occurs on coral reefs at depths of 3-240 m, usually seen solitary in clear water areas at depths below 15 m. Feeds primarily on fishes, crustaceans and cephalopods.

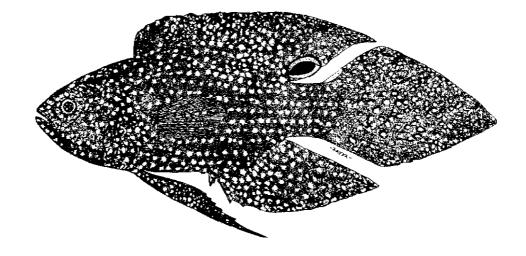
**Distribution:** Indo-Pacific.

**Remarks:** *Variola louti* is commonly seen by divers and snorkellers along the reef slope. Underwater it appears mainly violet in colour, some individuals being a most gorgeous deep purple.

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#### Calloplesiops altivelis (Steindachner, 1903)



English Name : CometFamily :PLESIOPIDAELocal Name :Dhunthari masOrder :PerciformesSize :Max. 16 cmSpecimen :MRS/0283/88

**Distinctive Characters:** Dorsal fin with 11 spines and 8-9 rays. Anal fin with 3 spines and 9 rays. Pectoral rays 18-19. Body depth 2.5 – 2.7 in standard length. Spinous membranes of dorsal fin not incised. Dorsal and anal fin somewhat elevated. Caudal fin long and pointed.

**Colour:** Black with small round bluish-white spots on head and body (one per scale), and scaled basal parts of fins. A prominent ocellus at the base of last dorsal rays.

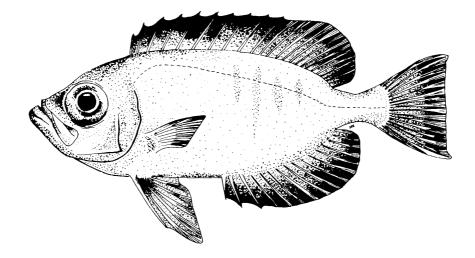
Habitat and Biology: A secretive species, living in caves and crevices on the reef slope.

**Distribution:** Indo-Pacific.

**Remarks:** Calloplesiops altivelis is fairly common on protected coral reefs in the Maldives. However, it is rarely seen by divers because of its secretive habits. When threatened it may present its tail to the intruder displaying the prominent posterior eyespot. This is thought by some to be mimicry of the Spotted moray eel.

## و شره مرکوشو

#### Priacanthus hamrur (Forsskål, 1775)



English Name: Crescent-tail bigeye Family: PRIACANTHIDAE

Local Name :HungumasOrder :PerciformesSize :Max. 35 cmSpecimen :MRS/0015/86

**Distinctive Characters:** Dorsal fin with 10 spines and 13-15 rays. Anal fin with 3 spines and 13-16 rays. Pectoral rays 17-20. Body depth 2.5-2.9 in standard length. Well compressed body. Mouth nearly vertical, snout long. Posterior and lower margins of preopercle finely serrated. Caudal fin emarginate.

**Colour:** Usually uniform red to deep red with a series of about 15 small dark spots along lateral line. Median and pelvic fins dusky red. A black spot at base of first 3 pelvic rays. Capable of quickly altering to pinkish silver with six red bars on body and one extending ventrally from eyes.

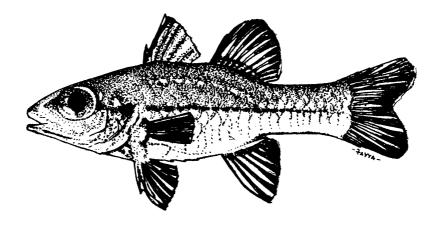
**Habitat and Biology:** Known from the depth range about 15 to at least 250 m. Easily approached underwater. Sometimes seen in small groups. Nocturnal. Feeds primarily on the larger zooplanktons.

**Distribution:** Indo-Pacific.

**Remarks:** *Piracanthus hamrur* is a common inhabitant of Maldivian reefs. This species is closely related to the endemic *P. meeki* Jenkins of Hawaii and the Atlantic *P. arenatus* Cuvier.

رسر کوک

#### Apogon abrogramma Fraser and Lachner, 1985



English Name :Fainstripe cardinalfishFamily :APOGONIDAELocal Name :Ehrongu boadhiOrder :PerciformesSize :Common to 7 cm; max. 10 cmSpecimen :MRS/0203/88

**Distinctive Characters:** First dorsal fin with 7 spines, second dorsal fin with 1 spine and 9 rays. Anal fin with 2 spines and 6 rays. Preopercle edge serrate. Supramaxilla absent.

**Colour:** Pale brown, with a distinct black stripe running from the snout through the eye to the tail. Leading edges of first dorsal and caudal fins black. No spot on caudal fin.

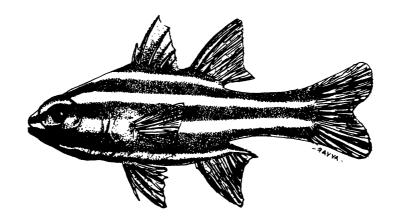
Habitat and Biology: A coral reef species, most common in shallow lagoons which contain coral outcrops.

**Distribution:** Indo-West Pacific.

**Remarks:** Apogon abrogramma is a common species in the Maldives. It belongs to the subgenus *Pristiapogon*, which contains several similar looking species. Cardinal fishes are one of few marine fish families in which oral brooding is found.

## 

#### Apogon nigrofasciatus Lachner, 1953



English Name :Black striped cardinal fishFamily :APOGONIDAELocal Name :Fulhaarongu boadhiOrder :PerciformesSize :Common to 6 cm; max. 9 cmSpecimen :MRS/0204/88

**Distinctive Characters:** First dorsal fin with 7 spines, second dorsal fin with 1 spine and 9 rays. Anal fin with 2 spines and 8 rays. Pectoral fin with 13 or 14 (usually 14) rays. Lateral line scales 24-25. Total gill rakers 20-24 (usually 21-23).

**Colour:** Whitish to yellow with five dark reddish to black stripes on head and body, which are broader than pale interspaces. Fins light red.

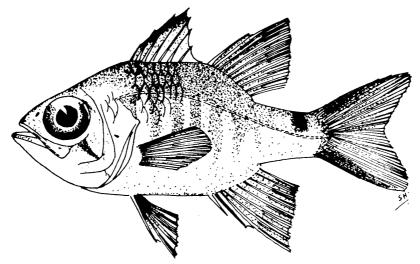
**Habitat and Biology:** A coral reef species, usually seen singly or in pairs on reef flat and shallow outer lagoon reefs to depths of 18 m. Rests by day under ledges or in crevices. Emerges at night to feed on small benthic invertebrates.

Distribution: Indo-Pacific.

**Remarks:** Apogon nigrofasciatus has been called A. aroubiensis Hombron and Jacquinot, but their description not identifiable. Very similar to Apogon angustatus but in that species the pale interspaces are broader than the dark stripes.

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English Name :Ghost cardinalfishFamily :APOGONIDAELocal Name :Loabodu burekiOrder :PerciformesSize :Max. 10 cmSpecimen :MRS/0028/86

**Distinctive Characters:** First dorsal fin with 7 spines, second dorsal fin with 1 spine and 9 rays. Anal fin with 2 spines and 8 rays. Pectoral fin with 13 rays. Body depth 2.7 in standard length. A broad body. Ridge of preopercle smooth; margin finely serrated. Post-orbital of head is almost equal to half eye diameter. First dorsal spine short. Pectoral fin longer than pelvic fin.

**Colour:** Overall coppery or silvery with a dark saddle on upper half of caudal fin base and wedge shaped bar below eye. Upper part of first dorsal fin black. Second dorsal and anal fin dusky. Caudal lobes darker than the rest of the tail.

Habitat and Biology: Usually seen among the stag-horn coral. Nocturnal in habit.

Distribution: Indo-Pacific.

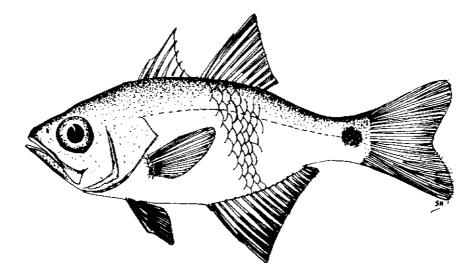
**Remarks:** *Apogon savayensis* is one of a complex of three very similar species found in the Maldives. One of the others is *Apogen guamensis* and third has not yet been scientifically described. Previously recorded in the genus *Ostorhynchus* in the Catalogue of Fishes of the Maldives, Vol. 1, page 20.

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#### Archamia fucata (Cantor, 1850)



English Name :Redbarred cardinalfishFamily :APOGONIDAELocal Name :Lah fathaaOrder :PerciformesSize :Max. 9 cmSpecimen :MRS/0035/86

**Distinctive Characters:** First dorsal fin with 6-7 spines and second dorsal fin with 1 spine and 7-8 rays. Anal fin with 2 spines and 15-18 rays. Pectoral fin with 14 rays. Body depth 2.7 in standard length. Small, robust fish. Hind margin of preoperculum finely serrated. Pectoral fin shorter than head length. Mouth relatively large to capture big prey.

**Colour:** Iridescent silvery with about twenty five vertical orange lines, which curve forward as they pass ventrally on body. Dark spots apparent on the cheek. A distinct black spot on either side of the caudal peduncle. Fins yellow.

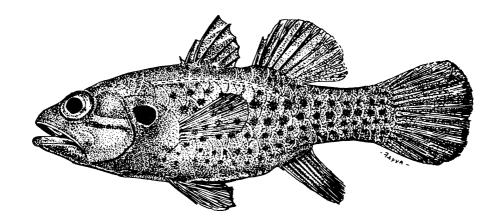
**Habitat and Biology:** Usually seen in aggregations in the shelter of reefs or rock substrata particularly in lagoons to depths of 60 m. Forms schools among branching corals.

**Distribution:** Indo-Pacific.

**Remarks:** Archamia fucata is sometimes used by Maldivian fishermen for bait, although it is not a major bait species.

تردؤي

#### Fowleria punctulata (Rüppell, 1836)



English Name :Peppered cardinalfishFamily :APOGONIDAELocal Name :Thikijehi boadhiOrder :PerciformesSize :Max. 6 cmSpecimen :MRS/0206/88

**Distinctive Characters:** First dorsal fin with 7 spines, second dorsal fin with 1 spine and 9 rays. Anal fin with 2 spines and 8 rays. Pectoral fin with 14 rays. Lateral line scales 10-12.

**Colour:** Reddish brown with black spots in longitudinal rows on sides, and an oscillated black spot on opercle. Fins not spotted.

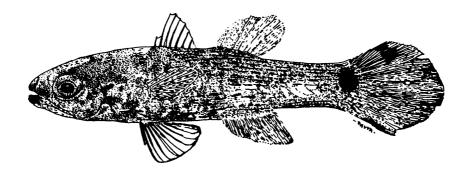
Habitat and Biology: A cryptic coral reef species.

Distribution: Indo-Pacific.

**Remarks:** *F. isostigma* (Jordan and Seale) is a synonym of *Fowleria punctulata*. Very similar to *F. variegata*, which has brown molting on its sides and fins. The family Apogonidae is one of the largest coral fish families. World-wide there are an estimated 250 species.

مرمقر صحر

#### Pseudamia gelatinosa Smith, 1955



English Name :Gelatinous cardinalfishFamily :APOGONIDAELocal Name :Ilolhi boadhiOrder :PerciformesSize :Common to 6 cm; max. 10 cmSpecimen :MRS/0074/86

**Distinctive Characters:** First dorsal fin with 6 spines, second dorsal fin with 1 spine and 8 rays. Anal fin with 2 spines and 8-9 rays. Pectoral fin with 15-17 (usually 16) rays. Body depth 4.0-4.8 in standard length. Body elongate, caudal fin large and rounded. Juveniles with strong triangular spinules around angle of Preopercle that becomes undulate to smooth in adults.

**Colour:** Translucent with light golden to silvery sheen, numerous tiny black spots arranged in longitudinal rows. Caudal fin blackish.

**Habitat and Biology:** Usually found in caves, hence is seldom seen by day. Found in deep coral thickets to depth of 40 m, usually in sheltered areas.

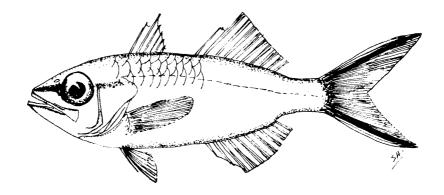
**Distribution:** Indo-Pacific

**Remarks:** *Pseudamia gelatinosa* may be common in the Maldives, but its cryptic habits mean that it is almost never seen. Not found in daytime livebait catches.

برخو صحر

وَرُوْ وَمُرَارِوَمٍ وَمُرَهُ وَ ثَمَرَهُ وَ مُرَهُ وَ مُرَمَوَ الْمُرَارِقِيَّةً وَوَمَرُ مُرَّوَدُوْ وَوَمَرَ مُرَوَدُو الْمَرَارُومُ وَوَمَرُ مُرَوَّدُو الْمُرَارُومُ وَوَمَرُ مُرَوَّدُو الْمُرَارُومُ وَوَمَ الْمُرَارُومُونُ وَوَمَرُ الْمُرَارُومُ وَوَمَرُ اللّهُ وَمُورُومُ وَوَمَ اللّهُ وَمُرَارِقُ وَوَمَ اللّهُ وَمُورُومٍ مِنْ اللّهُ وَمُرَارُومُ وَوَمُ اللّهُ وَمُرَارُومُ وَوَمُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُرَاءُ وَوَمُومُ وَمُرَامُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُ وَمُومُ وَمُرَامُومُ وَمُومُومُ وَمُومُ وَمُومُومُ وَمُومُومُ وَمُومُ وَمُو

#### Rhabdamia cypselura Weber, 1913



English Name :Headstripe cardinalfishFamily :APOGONIDAELocal Name :Hima boadhiOrder :PerciformesSize :Common to 4 cm; max. 7 cmSpecimen :MRS/0036/86

**Distinctive Characters:** First dorsal fin with 6 spines, second dorsal fin with 1 spine and 9 rays. Anal fin with 2 spines and 9 rays. Pectoral fin with 13 rays. Body depth 3.7 in standard length. More elongated, less elevated than most of the other species occurring in the Maldives. Maxillary extended to below middle eye. Preopercle ridge and margin smooth. Pelvic fin about half head length.

**Colour:** Transparent with a fine red stippling dorsally on body; a short black stripe on side of snout and a faint one behind eye; a dusky sub-marginal band in each caudal fin lobe.

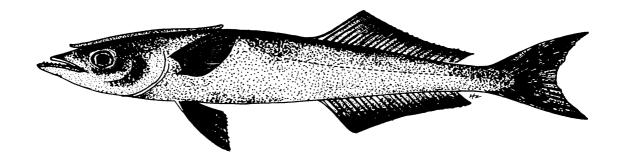
**Habitat and Biology:** Usually seen in large aggregations with other cardinal fishes in the sheltered reefs. Often forms schools in caves.

**Distribution:** Indo-Pacific

**Remarks:** *Rhabdamia cypselura* is a frequently used bait and favoured by Maldivian tuna fishermen. It is normally caught by placing the baitnet over their coral retreat, chasing them out, and lifting the net when they return. This sometimes causes considerable damage to the corals.

ر و صحر ر

#### Remora remora (Linnaeus, 1766)



English Name :Brown remoraFamily :ECHENEIDAELocal Name :AttamasOrder :PerciformesSize :Max. 62 cmSpecimen :MRS/0016/86

**Distinctive Characters:** Dorsal fin with 22-26 rays. Anal fin with 22-24 rays. Pectoral rays 26-30. Body depth 7.5 in standard length. Body elongate and moderately robust. Depressed head with a sucking disc which does not extend posteriorly as far as end of depressed pectoral fin. Sucking disc with 15-19 laminae. Pectoral fin short and round. Caudal fin emarginate. Scales minute and indistinct.

Colour: Uniform dusky brown to almost black.

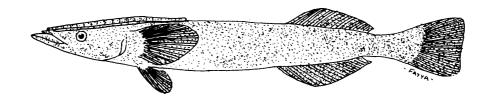
**Habitat and Biology:** In coastal and oceanic waters. Brown remoras attach themselves to a variety of fishes including sharks, marlins and turtles. They feed mainly on scraps that result from the feeding activities of their host. In addition, they sometimes eat parasitic crustaceans that attach on their host.

**Distribution:** Circumtropical

**Remarks:** The remoras (like *Remora remora*) are easily distinguished by the sucking disc on the top of the head, which represents a modification of the spinous dorsal fin.

رره څخو

#### Remorina albescens (Temminck and Schlegel, 1845)



English Name :White remoraFamily :ECHENEIDAELocal Name :Hudhu attamasOrder :PerciformesSize :Max. 30 cmSpecimen :MRS/0367/91

**Distinctive Characters:** Dorsal fin with 17-22 rays. Anal fin with 21-26 rays. Pectoral rays 18-21. Body depth 7.5 in standard length. Head with sucking disc, containing 13-14 laminae. Pelvic fins narrowly attached to abdomen.

Colour: Pale grey to white.

**Habitat and Biology:** Usually associated with manta rays (family Mobulidae), attaching near mouth, in mouth cavity and gill chambers.

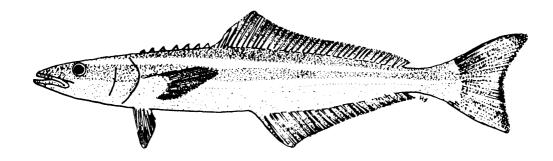
**Distribution:** Circumglobal.

**Remarks:** The white remora, *Remorina albescens*, is probably fairly common in the Maldives, but it is almost never seen, by either divers or fishermen, because it usually lives in the mouth cavities of manta rays. The specimen on which this record is based was taken from a manta ray caught during an offshore fishing survey, on 26 November 1988.

### رقر دره فروس

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#### Rachycentron canadum (Linnaeus, 1766)



English Name: Cobia Family: RACHYCENTRIDAE

**Local Name :** Koabiya **Order :** Perciformes **Size :** Common to 1.1 m; max. 2 m **Specimen :** MRS/P0137/87

**Distinctive Characters:** Dorsal fin with 7-9 spines followed by 1 spine and 33-36 rays. Anal fin with 2-3 spines and 22-28 rays. Pectoral rays 21-22. Body depth about 4.8 in standard length. Dorsal spines short and separate. Anal spines weak. Head broad and depressed. Mouth large and terminal. Caudal fin lunate in adults, upper lobe longer than lower (rounded in young, the central rays much prolonged).

**Colour:** Black above, sides brown with 2 distinct light bands. Belly pale yellowish.

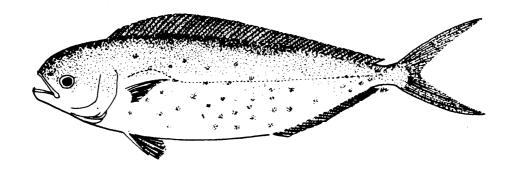
**Habitat and Biology:** Pelagic, but also found over shallow coral reefs and off rock shores, occasionally in estuaries. Feeds mainly on crustaceans, squids and fishes.

**Distribution:** Worldwide in warm seas except for Eastern Pacific. Despite the specific name, not known from Canada.

**Remarks:** *Rachycentron canadum* is a large predatory fish which is only rarely caught by Maldivian fishermen. It is related to remoras (see family Echneidae) in its appearance, although it lacks the sucking pads. It is sometimes seen swimming with large sea animals.

م'ص اکر

#### Coryphaena equiselis Linnaeus, 1758



**English Name:** Pompano dolphinfish **Family:** CORYPHAENIDAE

Local Name :AilaOrder :PerciformesSize :Common to 50 cm; max. 75 cmSpecimen :MRS/0118/87

**Distinctive Characters:** Single dorsal fin usually with 52-59 rays. Anal fin with 23-29 rays. Pectoral with 18-21 rays. Body depth more than 25 per cent of standard length. Anal fin with convex outline. Pectoral fin about half of head length.

**Colour:** Back metallic blue-green in life. Grey after death. Sides silvery with black spots. Juveniles with white edged caudal fin.

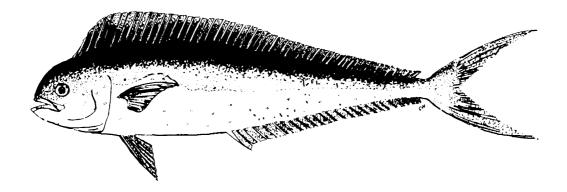
**Habitat and Biology:** Pelagic, inhabits in open waters but also approaches the coasts. Probably resembles *C. hipppurus* in following ships and forming aggregations. Feeds on small fishes and squids.

Distribution: Oceanic, in most tropical and sub-tropical waters.

**Remarks:** Coryphaena equiselis is much rarer than, but so similar to C. hippurus (next page) that it has probably been confused with that species. C. hippurus has a more elongated body (less than 25 per cent of standard length) and its pectoral fin is longer than half its head length.

تريريخ

#### Coryphaena hippurus Linnaeus, 1758



**English Name:** Common dolphinfish **Family:** CORYPHAENIDAE

Local Name :FiyalaOrder :PerciformesSize :Common to 1 m; max. 2 mSpecimen :MRS/0051/86

**Distinctive Characters:** Single dorsal fin usually with 58-67 rays. Anal fin with 25-30 rays. Pectoral with 17-20 rays. Body depth less than 25 per cent of standard length. Body elongate and compressed. Anal fin with concave outline. Pectoral fin more than half of head length.

**Colour:** Back brilliant metallic blue-green, shading to golden yellow ventrally with scattered iridescent blue-green spots. Dorsal fin deep blue-green. Caudal, anal and pelvic fins mainly yellow. Brilliant colours fade to silvery grey with black spots and dark fins soon after death.

**Habitat and Biology:** Pelagic, inhabits in open waters but also approaches the coasts. Follow ships and forms aggregations below floating objects. Feeds mainly on fish, but also crustaceans and squids.

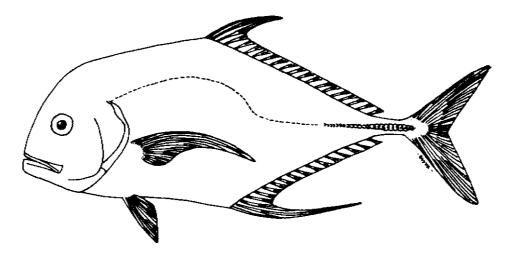
**Distribution:** Circumtropical.

**Remarks:** *Coryphaena hippurus* is much more common and larger than the closely related *C. equiselis* (previous page). The common dolphinfish is a renowned game fish caught mainly by trolling a lure near the surface.

نو الأبخر

وَرُوْ فَعْرَارِوَمِ تُعْمَرِهُوهِ \$5 مُدِ 67 مُرُ وَوَوْدُ لِيُوَرَّرُهُوْ وَلَاَ وَعَرَارِهُوهُ هَرُورُوهُو تَعْرَبُهُوهُ وَلَا يَدُرُ 30 مُرُ وَوَقُوهُ لِيُورِّرُونُ وَقَامَرِثُورُونُ وَرُدُ وَجِ شَهْرِهُ لِهِ فَرُر سِوْدُورُونُونُ وَرُدُ وَجِهُونُ رَحْدُوْ سِوَدُوهُ رَحْدَهُ عَرَفَهُ الْوَرْمُونُ وَرُدُو رَسِيعَ فَيَهُ مَهُومُ الْوَرْمُونُ وَرُدُو وَجَهُوهُ وَرُدُو وَجِهُ الْمُؤْمِنُ وَمُرُو الْمُؤْمِدُ وَرُدُو وَجِهُ الْمُؤْمِدُ وَرُدُونُ الْمُؤْمِدُ وَرُدُو وَجَهُ الْمُؤْمِدُ وَرُدُو الْمُؤْمِدُ وَمُرْمُ الْمُؤْمِدُ وَرُدُونُ الْمُؤْمِدُونُ الْمُؤْمِدُ وَرُدُونُ الْمُؤْمِدُ وَرُدُونُ اللَّهُ اللَّهُ وَالْمُؤْمِدُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّالِي اللَّهُ وَلَالُونُ اللَّهُ اللّ اللّهُ الللّهُ اللّهُ اللّهُ الل

#### Alectis ciliaris (Bloch, 1787)



English Name :African pompanoFamily :CARANGIDAELocal Name :Naruvaa handhiOrder :PerciformesSize :Max. 1.3 mSpecimen :MRS/0501/97

**Distinctive Characters:** Dorsal fin with 7 short spines (invisible in larger ones) followed by 1 spine and 18-22 rays. Anal fin with 2 spines (embedded in larger ones) followed by 1 spine and 18-20 rays. Gill rakers lower limb first gill arch 12-17, excluding rudiments. Anterior rays long and filamentous in juveniles. Body deep and compressed. Forehead rounded.

Colour: Silvery, with touch of metallic blue dorsally. Juveniles with 5 dark bars on body.

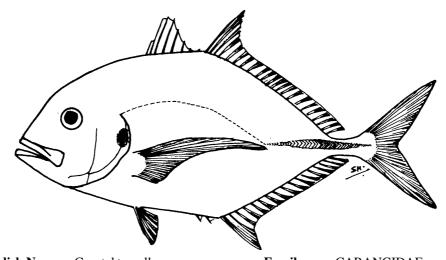
**Habitat and Biology:** Adults solitary in coastal waters to depths of 100 m. Young usually pelagic and drifting. Feeds mainly on sedentary crustaceans.

**Distribution:** Circumtropical.

**Remarks:** The similar *A. indicus* also occurs in the Indian Ocean. Unlike *Alectis ciliaris*, *A. indicus* has an angular forehead, more gill rakers on lower limb of first gill arch (21-26 excluding rudiment), and is coloured silver with a green tinge dorsally.

شرچوگارسر<sub>جو</sub>

#### Carangoides caeruleopinnatus (Rüppell, 1830)



English Name : Coastal trevallyFamily : CARANGIDAELocal Name : Vabboa handhiOrder : PerciformesSize : Max. 40 cmSpecimen : MRS/P0146/87

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 20-23 rays. Anal fin with 2 spines followed by 1 spine and 16-20 rays. Gill rakers on first gill arch including the rudiments, 21-25. Naked area of breast extends well beyond pelvic fins. Soft dorsal lobe filamentous in young, but shorter than the head length in adults.

**Colour:** Silvery, somewhat darker above than below. Many small yellow spots on sides. Small black blotch on opercular margin. Edges of second dorsal and anal fin dusky.

Habitat and Biology: Commonly found over deeper coastal reefs, but rarely close to shore.

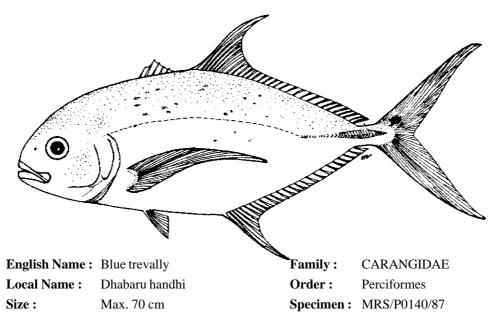
**Distribution:** Indo-West Pacific.

**Remarks:** While by no means common, *Carangoides caeruleopinnatus* appears to be the commonest of the noticeably deep-bodied *Carangoides* landed at Male fish market.

تونتر*جا ک*سو<del>ت</del>ر

جد وَمَرْ وَمِرْ وَمِرْ وَمِ مَرْدَ وَمُوهِ مِهُ وَمُرُو وَمُوهُ وَرُوهُ وَرُو هُوَ وَرُو وَمُو وَمُرَو وَمُور الا يُرِهُ وَمُورُ وَمُورُو وَمُورُونُو وَمُورُو و وَمُورُو و وَمُورُو و وَمُورُو و وَمُورُو وَمُورُو وَمُورُو وَمُورُو وَمُورُو وَمُورُو وَمُورُو و

#### Carangoides ferdau (Forsskål, 1775)



**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 26-34 rays. Anal fin with 2 detached spines, followed by 1 spine and 21-26 rays. Gill rakers on first gill arch including the rudiments, 24-29. Snout bluntly rounded. Breast naked ventrally to origin of pelvic fins. Naked patch at the base of pectoral fin.

**Colour:** Silvery. Numerous inconspicuous golden spots present on sides mainly above level of pectoral fins. Adults often with 5-6 dusky bands on sides.

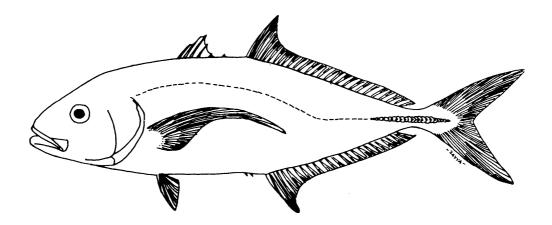
**Habitat and Biology:** Coastal waters; semi-demersal, found at depths from 5 to 60 m. Occurs singly or in small aggregations. Feeds on crustaceans or small fish.

**Distribution:** Indo-West Pacific.

**Remarks:** The many golden spots on the sides of *Carangoides ferdau* give it its Dhivehi name '*Dhabaru handhi*' (Rusty trevally), even though there are a number of other species with more conspicuous orange markings.

## توکه تحررسوتي

#### Carangoides fulvoguttatus (Forsskål, 1775)



English Name :Yellow-spotted trevallyFamily :CARANGIDAELocal Name :Dhon thiki handhiOrder :PerciformesSize :Max. 1 mSpecimen :MRS/0502/97

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 25-30 rays. Anal fin with 2 detached spines, followed by 1 spine and 21-26 rays. Total gill rakers (including rudiments) on first gill arch 22-27. Profile of head and nape slightly angular becoming more steep with age. Adults' mouth cleft distinctly below eye level.

**Colour:** Blue green above, silvery white below, usually with many small yellow spots on sides. Large adults with 3 black blotches in a mid-lateral row on flanks.

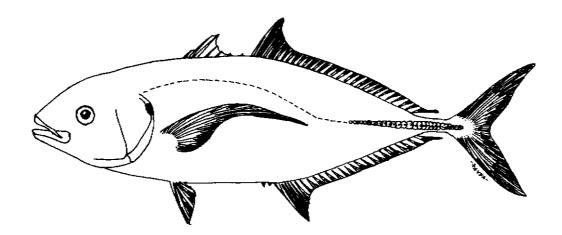
**Habitat and Biology:** Occurs in schools on rocky and coral reefs, but is occasionally found over offshore banks to depth of 100 m. Feeds mainly on invertebrates and fish.

**Distribution:** Indo-Pacific.

**Remarks:** Carangoides fulvoguttatus is often observed patrolling the edge of reefs in its continuous search for food. This species appears not so abundant in the Maldives. However, individuals do occasionally appear in Male fish market.

نخرش م*ور رکس فو* 

#### Carangoides gymnostethus (Cuvier, 1833)



English Name :Bludger trevallyFamily :CARANGIDAELocal Name :Mushimas handhiOrder :PerciformesSize :Max. 90 cmSpecimen :MRS/P0468/97

**Distinctive Characters:** First dorsal fin 8 spines, second dorsal fin with 1 spine and 28-32 rays. Anal fin with 2 detached spines, followed by 1 spine and 24-26 rays. Breast naked to behind pelvic origin and laterally to pectoral origin. Adults with mouth cleft at level of lower margin of eye.

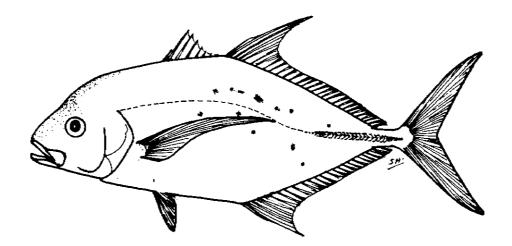
**Colour:** Olive green above, silvery white below; a few brown or golden spots sometimes present midlaterally; opercular spot dusky and usually inconspicuous.

**Habitat and Biology:** Semi-demersal, general at depths over 20 m. Large individuals usually solitary, juveniles form small schools. Feeds on crustaceans, cephalopods and fish.

Distribution: Indo-Pacific.

**Remarks:** Carangoides gymnostethus is not a common species in the Maldives. This report constitutes the first published record of its occurrence in the Maldives. It is occasionally caught by deep hand-line and bottom long lines. This species was previously known as C. gymnostethoides.

# ۇىرۇىشورسى<sub>و</sub>



English Name:Island trevallyFamily:CARANGIDAELocal Name:Thumba handhiOrder:PerciformesSize:Common to 40 cm; max. 70 cmSpecimen:MRS/P0157/87

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 28-31 rays. Anal fin with 2 detached spines, followed by 1 spine and 24-26 rays. Gill rakers on first gill arch including the rudiments, 28-32. Snout usually slightly angular. Lips in adults fleshy and pappilose. Breast naked ventrally to origin of pelvic fins, occasionally with a small patch of pelvic scales.

**Colour:** Rather dark silver-grey, tending to greenish above. Darkish yellow spots on sides, mostly below lateral line. Fine white margin to anal fin.

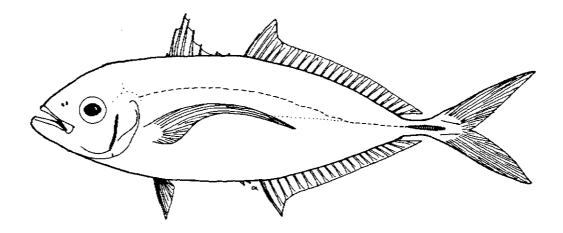
**Habitat and Biology:** Inhabits lagoons and seaward reefs to depths exceeding 50 m. Occurs singly, in pairs, or in schools. Feeds primarily on sand dwelling crustaceans, worms and small fishes.

**Distribution:** Indo-Pacific and Eastern Pacific.

**Remarks:** Carangoides orthogrammus has a nearly ubiquitous occurrence at oceanic islands and is virtually absent from inshore, neritic areas.

د پیر*مارکسویو* 

#### Carangoides plagiotaenia (Bleeker, 1851)



English Name :Barcheek trevallyFamily :CARANGIDAELocal Name :Thimara handhiOrder :PerciformesSize :Max. 42 cmSpecimen :MRS/P0130/87

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 22-24 rays. Anal fin with 2 detached spines, followed by 1 spine and 18-20 rays. Gill rakers on first gill arch including the rudiments, 27-40. Breast completely scaled. Adults with lower jaw somewhat enlarged and projecting beyond upper jaw. Posterior part of lateral line with 11-18 relatively small scutes.

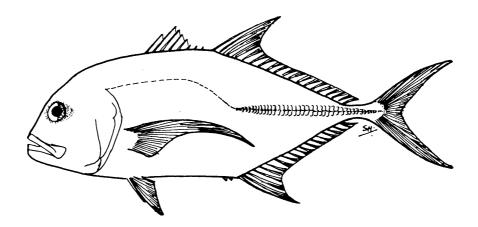
**Colour:** Silvery; grayish above, paler below. Posterior margin of preopercle black in adults. Leading edge of pelvic fin and distal margin of anal fin with a narrow white border.

Habitat and Biology: Prefers outer reef areas.

Distribution: Indo-West Pacific.

**Remarks:** Many of the trevallies or jacks are rather difficult to tell apart, but *Carangoides plagiotaenia* is quite distinctive with its rather elongate shape and the black cheek bar.

*ي وُ تُر*ُرس *و* 



English Name :Giant trevallyFamily :CARANGIDAELocal Name :Muda handhiOrder :PerciformesSize :Common to 80 cm; max. 1.7 mSpecimen :MRS/P0149/87

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 18-21 rays. Anal fin with 2 detached spines, followed by 1 spine and 15-17 rays. Gill rakers on first gill arch including the rudiments, 20-24. Body depth 2.7-3.8 in fork length. Strong scutes, breast naked ventrally, typically with a small patch of prepelvic scales.

**Colour:** Adults mainly silvery grey to black above, usually paler below. No dark spot at upper end of opercle. Fins usually uniformly pigmented grey to black.

**Habitat and Biology:** Abundant in all marine habitats to a depth of 80 m. Ubiquitous, but prefers hard bottoms. Forms loose schools. Feeds mainly on fish, but also on cuttle fish, squids and crustaceans.

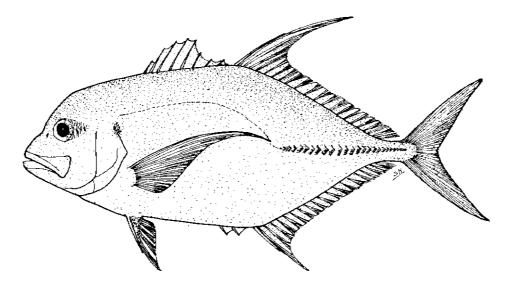
**Distribution:** Widespread in Indo-West Pacific.

**Remarks:** Caranx ignobilis is the largest of the trevallies or jacks and although small specimens may be confused with other species (e.g. C. lugubris), large specimens are unmistakable.

وكارسو

وَهُرَسُونِ شُرُوعُ وَشُوَوُهُمُ ثَدِ وَوَوَقَهُ وِسَرِمُ دُوَّوَمُنَا وَهُرَامُ وَمُرَّامُ وَمُرَامُ وَمُرَّامُ وَمُرَامُ وَمُرَامُونُ وَمُرَامُونُ وَمُرَامُ وَمُرَامُ وَمُرَامُ وَمُرَامُ وَمُرَامُونُ وَمُومُومُ وَمُرَامُونُ وَمُرَامُ وَمُرَامُ وَمُرَامُ وَمُرَامُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُرَامُ وَمُومُومُ وَمُرَامُ وَمُومُومُ وَمُرَامُ وَمُرَامُ وَمُرَامُ وَمُومُ وَمُرَامُ وَمُرَامُ وَمُرَامُ وَمُرَامُ وَمُرَامُ وَمُرَامُونُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُرَامُ وَمُرَامُ وَمُرَامُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُرَامُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُرَامُ وَمُومُ وَمُومُومُ وَمُومُ وَمُومُومُ وَمُومُ وَمُومُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُومُ وَمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْ

پرورش ناړوی کاروی کاروی در کاروی در کردی در دری کاروی در کردی دری کاروی کاروی



English Name :Black trevallyFamily :CARANGIDAELocal Name :Kalha handhiOrder :PerciformesSize :Max. 85 cmSpecimen :MRS/P0127/87

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 20-22 rays. Anal fin with 2 detached spines, followed by 1 spine and 16-19 rays. Lobe of dorsal fin relatively long. Breast completely scaled. Profile of head relatively steep and regular.

Colour: Body and fins mostly uniform grey to black. A small dark spot at upper end of opercle, and scutes often black.

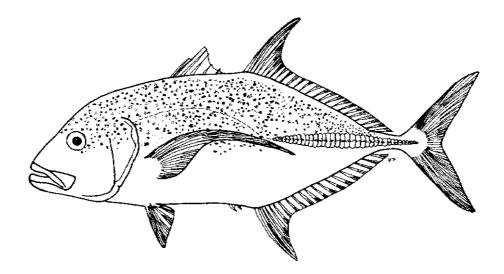
**Habitat and Biology:** Commonly seen on outer reef slopes and clear offshore waters usually in 25-65 m. Feeds primarily on fish.

**Distribution:** Circumtropical around oceanic islands.

**Remarks:** Caranx lugubris is most likely to be confused with C. ignobilis from which it can be distinguished by its darker colouration, head profile and completely scaled breast.

مائؤرسويس

#### Caranx melampygus Cuvier, 1833



English Name :Bluefin trevallyFamily :CARANGIDAELocal Name :Fani handhiOrder :PerciformesSize :Max. 1 mSpecimen :MRS/0049/86

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 21-24 rays. Anal fin with 2 detached spines, followed by 1 spine and 17-20 rays. Total gill rakers (including rudiments on first arch) 25-29. Dorsal profile of head and ventral profile nearly straight. Anterior rays of dorsal, pectoral and anal fin falcate. Breast fully scaled. Entire straight part of the lateral line with scutes.

**Colour:** Body greenish blue above, silvery below. Irregularly scattered black spots on head and body. Fins blue. Fins of juveniles and young adults pale to dusky, except pectorals, which are yellow.

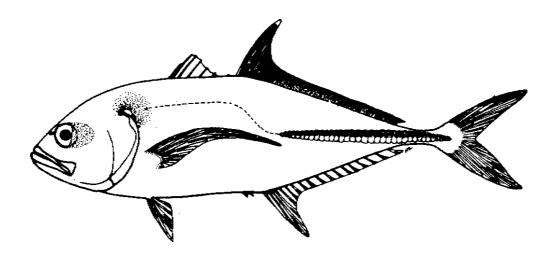
**Habitat and Biology:** A reef-associated species most common in offshore areas in depths from 3-40 m. Solitary or forms small schools around coral reefs. Feeds mainly on fish and crustaceans.

**Distribution:** Indo-Pacific and Eastern Pacific.

**Remarks:** Caranx melampygus is the most common jack on Maldivian reefs. This species is most active during early morning and late afternoon, but it also hunts at night. A colourful trevally not shy of divers.

تؤسورسويس

#### Caranx sexfasciatus Quoy and Gaimard, 1825



English Name :Bigeye trevallyFamily :CARANGIDAELocal Name :HaluvimasOrder :PerciformesSize :Common to 60 cm; max. 85 cmSpecimen :MRS/0013/86

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 19-22 rays. Anal fin with 2 detached spines, followed by 1 spine and 14-17 rays. Oblong and moderately compressed body. Dorsal profile more convex than the ventral. Breast fully scaled except of small area just anterior to pelvic fin base. Adipose eyelid well developed.

**Colour:** Greenish brown above, silvery white below. A blackish spot on upper edge of gill cover, smaller than the eye diameter. Soft dorsal and caudal fin yellowish grey. Anal and lower lobe of caudal fin yellowish. In adults dorsal fin lobes with white tip. Young with six broad blackish bars.

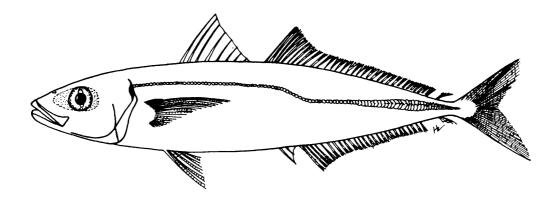
**Habitat and Biology:** A common reef-associated species, semi-demersal to a depth of 50 m. Nocturnal in behaviour and forms milling schools by day. Feeds on crustaceans, squids, cuttlefish and small fish.

**Distribution:** Indo-Pacific.

**Remarks:** Caranx sexfasciatus is mainly caught by night handline and is common on artificial reefs and wrecks. Can easily be approached by divers and even snorklers.

رۇوۇپ

#### Decapterus macarellus (Cuvier, 1833)



English Name :Mackeral scadFamily :CARANGIDAELocal Name :RimmasOrder :PerciformesSize :Max. 32 cmSpecimen :MRS/0070/86

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 31-37 rays (including finlets). Anal fin with 2 detached spines, followed by 1 spine and 27-31 rays (including finlets). Body very elongate and round. Rear end of upper jaw moderately rounded and slanted anteroventrally. Straight part of lateral line with scales followed by scutes at back.

**Colour:** Bluish green above, silvery below. A black opercular blotch distinct. Caudal fin yellowish green. Anal and pelvic fins whitish.

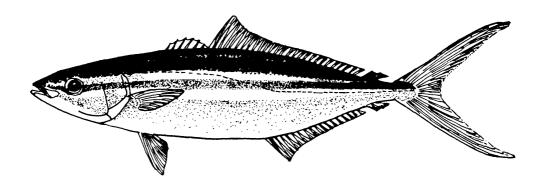
**Habitat and Biology:** A schooling species, occurring mostly in open water and common in insular habitats. Sometimes at surface, but usually in 40-200 m. Feeds on small planktonic invertebrates.

**Distribution:** Circumtropical.

**Remarks:** There are some 5-6 species of *Decapterus* known from the Indian Ocean, but so far only one, *i.e. Decapterus macarellus* is recorded from the Maldives.

برڅوکسو

مرهٔ وَرَبُو مِنْهُ وَهُو مُوَمُونِهُ مَا مُوهُمُ وَهُو وَهُو وَهُو وَهُو وَهُو وَهُو وَمُو وَمُودُو مِنْهُ وَ مُدُونَا مُوهُونِ فَا فَهِ مِنْهُ مُونُونُ وَمُ مُرْمَا مُنْهُ وَلَوْلُونُ وَكُونُونُ وَمُرَدُ وَمُودُونُ وَمُ عَدُدُ رِسُونُونُ وَرُدُودُونُ وَمِهِ وَوْرِهُ مَا مُونُونُ فَارُونُ وَمُرَدُونُ وَمُرَدُ مَا مُرَدُونُ وَمُو فَا يُونِدٍ 32 سَوْرِهِ وَهُرُونُونُ



English Name:Rainbow runnerFamily:CARANGIDAELocal Name:Maaniyaa masOrder:PerciformesSize:Common to 80 cm; max. 1.2 mSpecimen:MRS/0009/86

**Distinctive Characters:** First dorsal fin with 6 spines, second dorsal fin with 1 spine and 25-30 rays (including finlets). Anal fin with only 2 spines, the first slightly detached from the rest of fin and covered by skin in larger individuals. The second spine continues with 18-20 rays (including finlets). Elongate, fusiform and slightly compressed body. No scutes on lateral line. Caudal fin deeply forked.

**Colour:** Body deep blue above, light pink to white below. Three broad longitudinal olive to yellowish bands on body, middle one running from snout through eye to caudal peduncle.

**Habitat and Biology:** A pelagic species, usually found at or near the surface and close to reefs near oceanic islands. Forms small schools. Feeds on invertebrates and small fish.

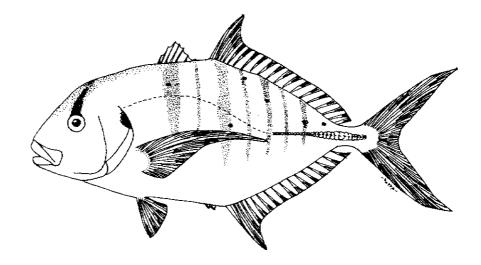
**Distribution:** Circumtropical.

**Remarks:** *Elagatis bipinnulata* is sometimes associated with schools of *K. pelamis* (Skipjack tuna) and young *T. albacares* (Yellowfin tuna), and often caught in pole and line fishing as a by-catch.

وٌسِ اوْرُوسُ

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#### Gnathodon speciosus (Forsskål, 1775)



English Name :Golden trevallyFamily :CARANGIDAELocal Name :Libaas handhiOrder :PerciformesSize :Max. 1.1 mSpecimen :MRS/P0333/88

**Distinctive Characters:** First dorsal fin with 7 spines, second dorsal fin with 1 spine and 18-20 rays. Anal fin with 2 detached spines followed by 1 spine and 15-17 rays. Breast completely scaled. Lips noticeably papillose and upper jaw strongly protractile.

**Colour:** Young and small adults bright yellow to silvery with 7-11 black bands, usually alternating broad and narrow. All fins yellow, with caudal tips black. Adults with a few black blotches on sides.

**Habitat and Biology:** Found inshore, including rocky reefs, deep lagoons and seaward reefs. A bottom feeder that preys on crustaceans, molluscs and small fish.

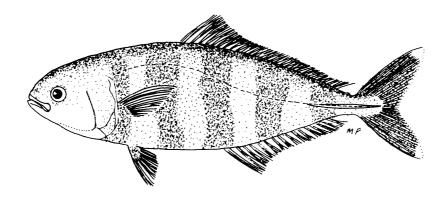
**Distribution:** Tropical Indo-Pacific.

**Remarks:** *Gnathodon speciosus* is caught occasionally by fishermen using hand lines near reefs. Juveniles swim with sharks and other big fish and in this context are found long distances offshore.

حِرهٌ شورُسرو<sub>م</sub>ِ

و شرور و شرور و مرور و

#### Naucrates ductor (Linnaeus, 1758)



English Name :Pilot fishFamily :CARANGIDAELocal Name :Kafihi masOrder :PerciformesSize :Common to 35 cm; max. 70 cmSpecimen :MRS/P0183/88

**Distinctive Characters:** First dorsal fin with 4-5 separate spines, second dorsal fin with 1 spine and 25-29 rays. Anal fin with 2 detached spines followed by 1 spine and 15-17 rays. Body elongate, shallow and barely compressed. Caudal peduncle without scutes but with a long fleshy keel on each side.

**Colour:** Silver-grey with 6-7 blue black bars. White tips to caudal lobes, and also on soft dorsal and anal lobes, most of fins dusky to dark.

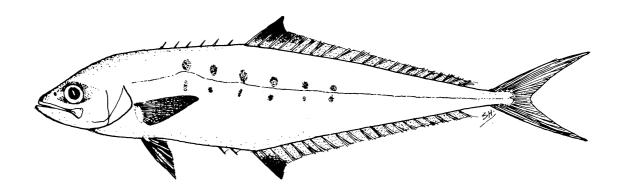
**Habitat and Biology:** Primarily pelagic in oceanic waters. Occurs solitary, in pairs or in groups. Juveniles drift with seaweed and jellyfish. Shows pilot behaviour.

**Distribution:** Circumtropical.

**Remarks:** *Naucrates ductor* has a semi-obligate commensal relationship with large sharks, rays and other fishes, turtles and also ships and drift wood.

*ىئۇر*ۇشو

#### Scomberoides lysan (Forsskål, 1775)



English Name :Doublespotted queenfishFamily :CARANGIDAELocal Name :Kashi vaali, Hondeli fahaa valli, Eka vaaliOrder :PerciformesSize :Max. 70 cmSpecimen :MRS/P0123/87

**Distinctive Characters:** First dorsal fin with 6-7 separate spines, second dorsal with 1 spine and 19-21 rays. Anal fin with 2 detached spines followed by 1 spine and 17-19 rays. Maxilla extends to or slightly beyond rear margin of eye. No scutes; scales on mid-body lanceolate in adults.

**Colour:** Silvery grey. Adults with a double series of 6-8 dusky blotches above and below lateral line, occasionally connected by a narrow band. Top half of dorsal fin lobe dark. Pelvic yellow.

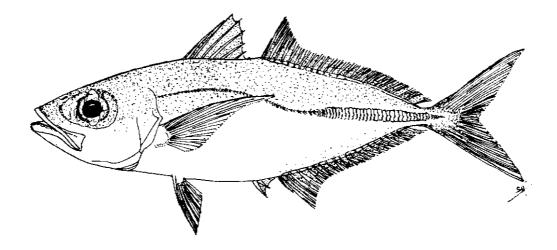
**Habitat and Biology:** Inhabits inshore waters from shallow lagoons to offshore areas from the surface to depths of 100 m. Feeds on other fishes and small crustaceans.

**Distribution:** Indo-West Pacific.

**Remarks:** Although by no means common, *Scomberoides lysan* is caught fairly regularly by Maldivian fishermen using hand-lines near reefs. It has a number of local names: 'vaali' refers to this type of fish; 'kashi' (spine) refers to the row of dorsal spines; "hondelifahaa" means sprat-chasing; and 'eka' (one) presumably refers to the fact that it is normally caught singly.

ما برگ پر

#### Selar crumenophthalmus (Bloch, 1793)



English Name :Bigeye scadFamily :CARANGIDAELocal Name :MushimasOrder :PerciformesSize :Max. 30 cmSpecimen :MRS/0011/86

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 24-27 rays. Anal fin with 2 detached spines followed by 1 spine and 21-23 rays. Body elongate, shallow and moderately compressed. Dorsal and anal fins without a detached terminal finlet. Eye very large, shorter than snout. Adipose eyelid covering eye, except for broad oval slit central on pupil. Pectoral fin shorter than head.

**Colour:** Metallic blue to bluish green above, shading to white-below; yellow stripe sometimes present from opercle margin to upper part of caudal peduncle. A black opercular spot distinct.

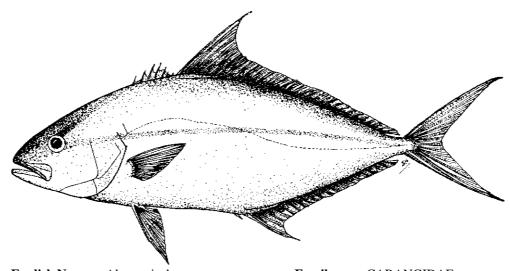
**Habitat and Biology:** Forms small to large schools in inshore waters and shallow reefs to depths of 170 m. Feeds on plankton, benthic invertebrates and small fish.

**Distribution:** Worldwide in tropical and sub-tropical waters.

**Remarks:** *Selar crumenophthalmus* is a widespread species in shallow lagoons of the reefs and islands. In the Maldives it is mainly caught during day time using pole and line. A popular food fish.

ۇرۇش

#### Seriola rivoliana Valenciennes, 1833



English Name :Almaco jackFamily :CARANGIDAELocal Name :Andhun masOrder :PerciformesSize :Common to 70 cm; max. 1.1 cmSpecimen :MRS/P0119/87

**Distinctive Characters:** First dorsal fin with 7 spines, second dorsal fin with 1 spine and 27-33 rays. Anal fin with 2 detached spines followed by 1 spine and 18-22 rays. Gill rakers (excluding rudiments) on the first arch 22-26. Body elongate, moderately deep and slightly compressed. Upper jaw broad at end, extending to below posterior mid-point of pupil. No scutes on lateral line. Grooves present on caudal peduncle.

**Colour:** Pale brown. Dark bar extending from eye to dorsal spine (most marked in juveniles). Fins mostly dark; pelvics may be white ventrally; anal fin usually with white lobe; caudal with pale margin.

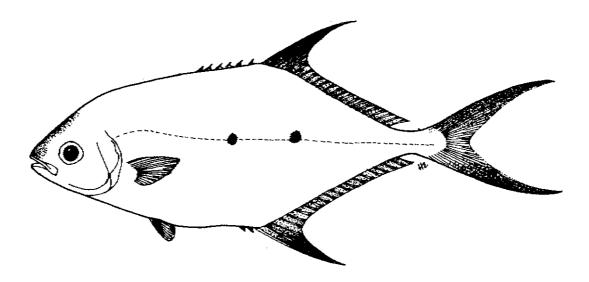
**Habitat and Biology:** Oceanic and semi-demersal at depths of 30-160 m. Rarely found in inshore waters. Small juveniles are found offshore, under floating plants and debris. Feeds on fish.

**Distribution:** Circumtropical.

**Remarks:** The distinctive dark eye bar of *Seriola rivoliana* gives this species its local name, 'andhun' being the Dhivehi word for kohl.

### ركسر فخر شركو شو

#### Trachinotus baillonii (Lacepède, 1801)



English Name :Smallspotted dartFamily :CARANGIDAELocal Name :Goru vaaliOrder :PerciformesSize :Max. 54 cmSpecimen :MRS/P0122/87

**Distinctive Characters:** First dorsal fin with 6 spines, second dorsal fin with 1 spine and 20-24 rays. Anal fin with 2 detached spines followed by 1 spine and 20-24 rays. Gill rakers on lower limb of first gill arch (including rudiments) 15-19. Body elongate to oval and strongly compressed. Dorsal fin lobe consistently shorter than anal fin lobe in larger specimens.

**Colour:** Adults silvery blue to grey above, silvery white below. Sides with 1-5 small black spots in a longitudinal row on or near lateral line (usually equal or smaller than eye). Spots absent in juveniles. Second dorsal, anal and caudal fins grey to black, lobes usually darkest.

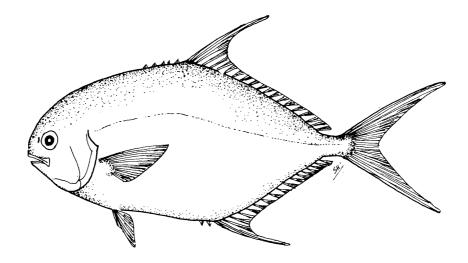
**Habitat and Biology:** Occurs in surge zone along sandy beaches, often in very shallow waters. Usually seen in small schools. Feeds on small fishes.

**Distribution:** Widely distributed in Indo-West Pacific.

**Remarks:** *Trachinotus baillonii* is commonly found in small groups in lagoons and besides shallow reefs. On sunny days its silver colouration makes it almost invisible as it swims above the white sand.

۵۶ برو در ۲ برو جر

#### Trachinotus blochii (Lacepède, 1801)



English Name :Snubnose pompanoFamily :CARANGIDAELocal Name :Rindha vaaliOrder :PerciformesSize :Max. 80 cmSpecimen :MRS/P0111/87

**Distinctive Characters:** First dorsal fin with 6 spines, second dorsal fin with 1 spine and 18-20 rays. Anal fin with 2 detached spines followed by 1 spine and 16-18 rays. Body oval shape and compressed. Tongue toothless. Predorsal bone oval-shaped. Profile of snout broadly rounded. No scutes.

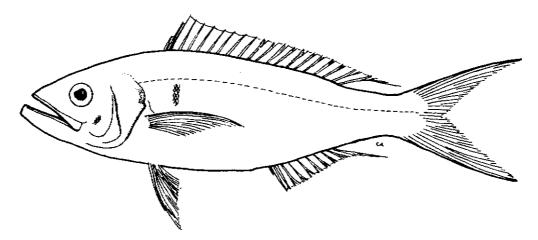
**Colour:** Silver, but often washed with golden-orange, especially in larger individuals. Anal fin dusky orange, and lobe with a brownish anterior margin.

**Habitat and Biology:** Inhabits coral and rocky reef areas and shallow coastal waters at depths of 2-20 m. Feeds mainly on molluscs and hermit crabs, which it crushes with its strong pharyngeal plates.

**Distribution:** Widely distributed in Indo-West Pacific.

**Remarks:** *Trachinotus blochii* is not very common, but it is occasionally caught by hand line, and is sometimes seen by divers, in small groups along the outer reefs. The Dhivehi word '*rindha*' means mussel, and refers to the oval shaped bone to be found just under the skin at the nape of 'neck'.

بوسرفرگ<sup>ایو</sup>



English Name :Small toothed jobfishFamily :LUTJANIDAELocal Name :Keyolhu rovviOrder :PerciformesSize :Max. 40 cmSpecimen :MRS/P0136/87

**Distinctive Characters:** Dorsal fin with 10 spines and 10-11 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 15-16 rays. Gill rakers on the lower limb (including rudiments) 16-18. Body relatively elongate and compressed. Dorsal fin continuous and not incised at junction of spiny and soft portions. Last ray of dorsal and anal fins prolonged. Caudal fin deeply forked.

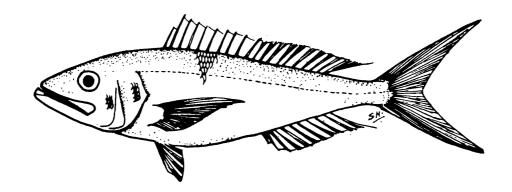
**Colour:** Blue-grey, tending to purplish above and silvery below. Operculum and preopercle edged with black. Caudal fin dusky, others pale. Variable yellow stripe sometimes seen on forehead.

**Habitat and Biology:** Inhabits coral and rocky reefs at depths between 6 and 70 m. It is solitary roving predator, which feeds principally on small coral-reef fishes, but also eats crustaceans.

Distribution: Indo-Pacific.

**Remarks:** There are two species of *Aphareus*, both of which occur in the Maldives. They can be easily separated on the basis of colour and size.

ود مُرَدُقَ وَمُوَوَقُونَ قَصْرَهُ وَمُرَدِهُ مُوَّ وَرَدَهُ هِوْرِ وَسَوَّمِهُ وَرَقَ وَرَدَةً وَوَّدُو مُحَوَّهُ عَصْرَفُوْ وَوَسَّهُ فَهُرَهُ وَدِ وَقَرِهُ مَرِدَةٌ وَمُوَرَّفُوْ وَدِ وِكَانَّهُ مُوْمَ وَرَدُوْ. عَرَضُهُمْ وَمِهُمُ مَثَرُهُمْ وِخُوْ. وَرُفَ مُسَوَدِقَدٍ وَمُرَدَّ نُومِنُو وَهُوكُنَّدُ نَعْرَهُوهُ وَمُمَا 10 رَثَرَنَدُوْ. وَرُوَ مَمُرَهُمُ وَهُو اللّهُ مَا يَوْمَ مُولَوْدُ هَمْ مُرَادُورُ وَمُورِدُورُ وَمُورُورُ وَهُمَا مِرْتَمْدُوْ، وَرُوْ مَمُرُومُ وَهُو اللّهُ مُورَا اللّهُ مُورَا وَهُمَا مِرْتُورُورُ وَالْ



English Name :Rusty jobfishFamily :LUTJANIDAELocal Name :Fashuvi rankaru masOrder :PerciformesSize :Max. 80 cmSpecimen :MRS/P0147/87

**Distinctive Characters:** Dorsal fin with 10 spines and 10-11 rays. No notch on the dorsal fin. Anal with 3 spines and 8 rays. Pectoral fin with 15-16 rays. Gill rakers on the lower limb (including rudiments) 30-34. Body relatively slender. No teeth on roof of mouth. Lower jaw protruding. Fins scale less. Caudal fin deeply forked.

**Colour:** Usually reddish tending silvery below. Edge of maxilla black. Upper jaw edged with black. Fins yellowish to reddish except pelvic and anal fins which are sometimes whitish.

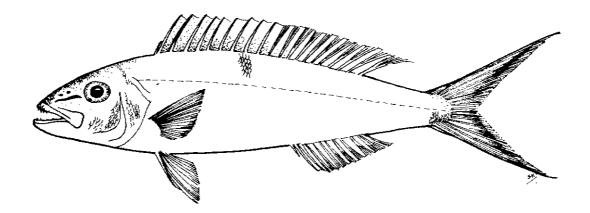
**Habitat and Biology:** Occurs on coral reefs, rocky and sandy bottoms at 50 to at least 100 m depth. Feeds on small crustaceans, other sand dwelling invertebrates and fish.

Distribution: Indo-West Pacific.

**Remarks:** Of the two related species of *Aphareus*, this is the larger and apparently the more deep-dwelling. The Dhivehi name, '*Fashuvi rankaru mas*', means fish with the golden thread gill rakers.

# وُ تُرْوِ بَرُسُ مَا يُرُوكُ سُو

وره رود ود ود ود در در ورود ورود



English Name:Green jobfishFamily:LUTJANIDAELocal Name:GiulhuOrder:PerciformesSize:Common to 60 cm; max. 1 mSpecimen:MRS/0067/86

**Distinctive Characters:** Dorsal fin with 10 spines and 11 rays. Anal with 3 spines and 8 rays. Pectoral fin with 16-18 rays. Elongate and fusiform body. A distinct groove in front of eye. Maxillary almost reaching to below front border of eye. Preoperculum not serrated. Pectoral fin short, about equal to snout length, and rounded. Cheek scaled. Caudal fin deeply forked with pointed lobes.

**Colour:** Body dark green to blue above, paler grey below. A series of dark blotches between posterior dorsal spines and anterior dorsal rays.

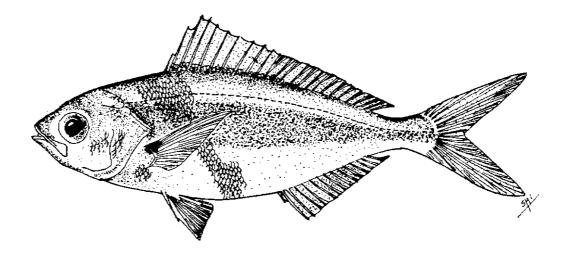
**Habitat and Biology:** Inhabits inshore reef areas from 3 m down to a depth of 150 m. Solitary or in small schools. Feeds mainly on fishes, but also on crustaceans and cephalopods.

**Distribution:** Tropical Indo-Pacific.

**Remarks:** Aprion virescens is a free swimming carnivorous fish and difficult to approach underwater. It is a very common species in the Maldives, caught mainly by handline and trolled lures. Its flesh makes excellent eating. A crustacean isopod parasite is often found in its nostrils.

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#### Caesio xanthonota Bleeker, 1853



English Name :Yellowfin fusilierFamily :LUTJANIDAELocal Name :Mahi muguraanOrder :PerciformesSize :Common to 25 cm; max. about 35 cmSpecimen :MRS/0019/86

**Distinctive Characters:** Dorsal fin with 10 spines and 15 (rarely 14) rays. Anal with 3 spines and 12 (rarely 11) rays. Pectoral fin with 2 spines and 19 rays. Moderately slender, fusiform, compressed body. Eye moderately large. Dorsal profile concave in front of eye. Pectoral fin slightly longer than head. First dorsal spine short, third spine longest. Caudal fin deeply forked.

**Colour:** Back and dorsal yellow, sky blue on sides, grading to light pink on ventral side. Axil of pectoral fin base black. Caudal fin yellow, without black tips or dark streaks on lobes.

**Habitat and Biology:** Forms dense schools adjacent to reefs. Feeds on zooplankton in large midwater aggregations. Sometimes these schools approach the surface, where they appear as a yellow stain.

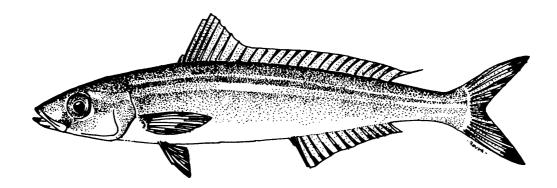
**Distribution:** Indo-West Pacific.

**Remarks:** Caesio xanthonota was previously recorded under the family Caesionidae. The fusiliers are now recognised as a sub-family (Caesioninae) of the snapper family Lutjanidae. Juveniles are used as bait for pole and line tuna fishery.

ב' ב' ב' מ'לית

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#### Gymnocaesio gymnoptera (Bleeker, 1856)



English Name:Slender fusilierFamily:LUTJANIDAELocal Name:Dhandi muguraanOrder:PerciformesSize:Common to 10 cm; max. 18 cmSpecimen:MRS/0499/97

**Distinctive Characters:** Dorsal fin with 10 spines and 15 rays and the fin not deeply notched. Anal fin with 3 spines and 12 rays. Dorsal and anal fins scaleless. Pectoral fin with 21 or 22 rays. Two postmaxillary process. Premaxilla without teeth. Body depth 5.0-6.0 in standard length. Body very slender, fusiform, elongated and moderately compressed.

**Colour:** Bluish green above and silvery white below. A single yellow or brown stripe about one scale width covering the lateral line for most of its length. Caudal fin dusky, tips of the lobes black.

**Habitat and Biology:** Inhabits coastal areas ranging widely around coral reef. A schooling fish, often in groups with members of the genus *Pterocaesio*. Feeds on zooplankton in large midwater aggregations.

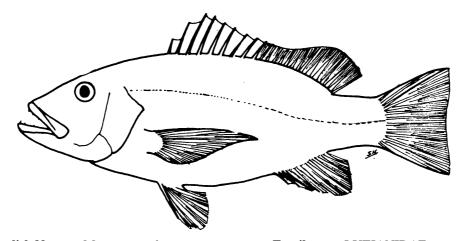
**Distribution:** Indo-West Pacific.

**Remarks:** *Gymnocaesio gymnoptera* is used as a live bait in the Maldivian pole and line tuna fishery. There is some debate as to whether the fusiliers should be treated as a distinctive family or a sub family (Caesioninae) of the snappers (Lutjanidae).

ק ת<u>ו</u> ב כל ק"ם בק תוו ב כל הק"ת

وَسِوْ وَوَسُوْ مُرْدُوْ وَ مُرْوَدُوْ مُوْدُو مُرْدُو مُرَدُو مُرَدُ مُرَدُو مُرَدُو وَرُدُو وَرُدُو وَ وَكُو 18 سَدَرُعِ حِعْمُ مُرَدُو مِرْسُو وِسُرِسُ وَسُرَدُ وَيُوْوَ وَكُوْ وَرُدُو اِرْدُرُوسِ 10 سَارْعِ وِعَامُونَ وَوَكُرُونَا هُوَهُومُونَا فَالْمُورِ رَوْدُو وَرُدُونُ وَدِ وَوْرِ مُرْدُومِنَا وَوَرُ يَعْرُمُ مُلُودُ مُرَد وَرُو مُرُدُو مُرْدُونُ مُرَدُرِدُ وَدُورُ وَرُدُونُ وَدِ وَوْرِ مُرْدُومُونُ وَدُورُ وَرُدُونُ وَدِ وَوْرِ مُرَدُونُ مُرَدُونُ مُرَدُودُ وَدُورُ وَرُدُونُ وَرُدُونُ وَرُدُونُ وَدُورُ وَرُدُونُ وَرُورُ وَمُورُ وَمُرَدُودُ وَرُدُونُ وَرُدُونُ وَرُدُونُ وَرُدُونُ وَرُدُونُ وَرُدُونُ وَرُدُونُ وَرُورُ وَمُورُ وَمُورُ وَمُورُ وَمُورُ وَمُورُ وَمُورُ وَرُدُونُ وَرُدُونُ وَرُدُونُ وَرُدُونُ وَالْمُؤْمِنُونُ وَالْمُورُ وَمُورُ وَمُورُونُ وَالْمُورُ وَالْمُؤْمُ

#### Lutjanus argentimaculatus (Forsskål, 1775)



English Name:Mangrove red snapperFamily:LUTJANIDAELocal Name:OdidhoshumasOrder:PerciformesSize:Common to 80 cm; max. 1.2 mSpecimen:MRS/P0160/87

**Distinctive Characters:** Dorsal fin with 10 spines and 13-15 rays. Anal fin with 3 spines and 8-9 rays. Pectoral fin with 16-17 rays. Body deep; body depth 2.5-3.1 in standard length. Dorsal scale rows horizontal; sometimes rising obliquely posteriorly; rarely rising obliquely over entire length. Crescent shaped tooth patch on roof of mouth.

**Colour:** Greenish brown to reddish. Belly whiter. Some individuals with 1 or 2 blue lines under eye. Juveniles with faint banding on sides.

**Habitat and Biology:** Young specimens found in big lagoons and around mangroves; brown coloured. Adults live in deeper reef areas to depths of 100 m; red coloured. Feeds on fishes and crustaceans.

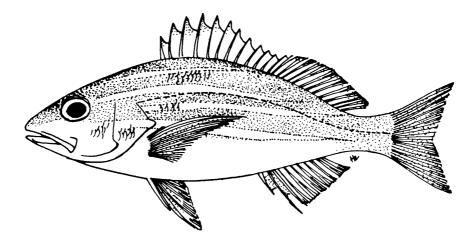
**Distribution:** Indo-West Pacific.

**Remarks:** *Lutjanus argentimaculatus* is not a particularly common species in the Maldives, but individuals are sometimes caught with handlines at night. It can easily be confused with *L. bohar*, but this has all scale rows above the lateral line clearly oblique.

## مع فر شروک

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#### Lutjanus bengalensis (Bloch, 1790)



English Name :Bengal snapperFamily :LUTJANIDAELocal Name :ReendhoomasOrder :PerciformesSize :Usually less than 20 cm; max. 30 cm Specimen :MRS/0065/86

**Distinctive Characters:** Dorsal fin with 11-12 spines and 12-14 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 16-17 rays. Body depth 2.5-2.9 in standard length. Body robust and compressed. 17-19 gill rakers including rudiments on first lower gill arch. Longitudinal scale rows ascending obliquely above lateral line, but running horizontally below it. Caudal fin slightly forked.

**Colour:** Body generally yellow with four bluish longitudinal stripes on sides. Whitish below the lines. Fins yellowish to white.

**Habitat and Biology:** Occurs at depths between 5-25 m, often forming small aggregations around rocky outcrops and coral heads in sheltered lagoons. Feeds mainly on fishes and crustaceans.

**Distribution:** Indo-Pacific.

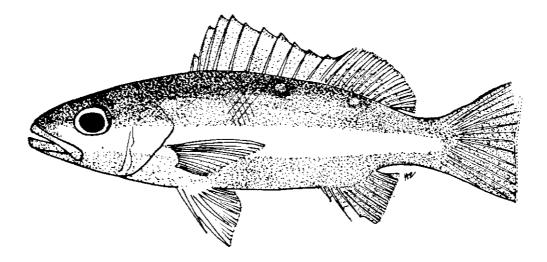
**Remarks:** *Lutjanus bengalensis* is very similar in appearance to *Lutjanus kasmira*. *L. bengalensis* is normally seen by divers as schools of small, white bellied fish on coral bommies in deep lagoons. *L. kasmira* is normally seen in schools of medium sized, pale yellow-bellied fish on coral reefs.

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#### Lutjanus biguttatus (Valenciennes, 1830)



English Name:Two-spot banded snapperFamily:LUTJANIDAELocal Name:Bodu reendhoomasOrder:PerciformesSize:Max. 20 cmSpecimen:MRS/0176/87

**Distinctive Characters:** Dorsal fin with 11 spines and 12 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 15 or 16 rays. Body depth 3.5-3.8 in standard length. Body fusiform, very slender. Tongue smooth without teeth. Tooth patch on vomer triangular with a median posterior extension. Scale rows on back rising obliquely above lateral line. Caudal fin truncate.

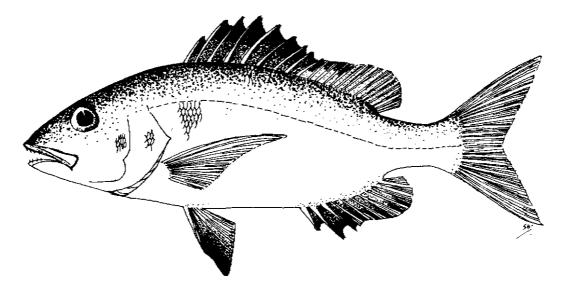
**Colour:** Upper head and back dark brown. Pair of white spots below dorsal fin. White band from mouth to tail. Elsewhere yellow. Fins pale or yellow.

**Habitat and Biology:** Inhabits coral reefs at depths between about 5 and 25 m. Sometimes occurs in large schools of more than 100 individuals. Feeds mainly on small fishes and crustaceans.

**Distribution:** Maldives to Western Pacific.

**Remarks:** Like most snappers, *Lutjanus biguttatus* is a nocturnal species. By day it forms schools, most often in association with large stands of branching *Acropora* corals. At night the schools disperse to feed on the reef.

×? ۵ غیرس فرکزسو ا



English Name : Two-spot red snapperFamily : LUTJANIDAELocal Name : RaiymasOrder : PerciformesSize : Common to 55 cm; max. 75 cmSpecimen : MRS/0003/86

**Distinctive Characters:** Dorsal fin with 10 spines and 13-14 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 16-17 rays. Body depth 2.4-2.9 in standard length. Body moderately deep. A prominent groove or pit in front of eye containing the nostrils. Caudal fin slightly emarginate.

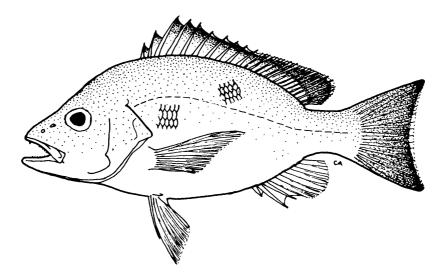
**Colour:** Reddish brown body, darker above and paler below, scales of body with whitish spots. Margins of pelvic, anal and caudal fins white. In young, two white spots present on sides. Sometimes shows distinctly tripartite pattern: dark grey-red above; medium orange laterally; silvery below.

**Habitat and Biology:** Found on coral reefs, sheltered lagoons and outer reefs, usually at depths between 10 and 70 m. Often solitary, but sometimes forming large schools. Feeds mainly on small fishes, crustaceans and cephalopods.

Distribution: Indo-Pacific.

**Remarks:** *Lutjanus bohar* is perhaps the most common large snapper in the Maldives. It is a popular food fish, although its flesh can be somewhat chewy. This species has been implicated in ciguatera poisoning in other countries, but not in the Maldives.

برڅو<sup>د</sup> سو



English Name:Blacktail snapperFamily:LUTJANIDAELocal Name:Dhon masOrder:PerciformesSize:Common to 25 cm; max. 40 cmSpecimen:MRS/0121/87

**Distinctive Characters:** Dorsal fin with 10 spines and 14 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 16 rays. Body depth 2.3-2.8 in standard length. Dorsal profile of head steeply sloped. Preopercle with prominent notch on rear edge. Posterior profile of dorsal and anal fins rounded. Scale rows horizontal below lateral line, but rising obliquely above it. Caudal fin emarginate.

**Colour:** Greyish pale yellow or white ventrally. Faint narrow yellow stripes may be visible on body. Caudal fin black, with narrow white margin. Anal and pelvic fins yellow. Dorsal fin reddish brown.

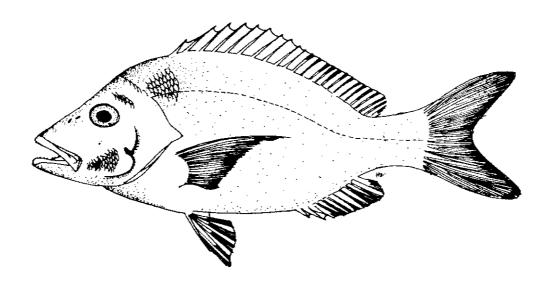
**Habitat and Biology:** Frequents coral patches in lagoons and outer reef slopes in about 2-40 m depth. Feeds mainly on crustaceans, occasionally on small fishes, cephalopods and holothurians.

**Distribution:** Indo-West Pacific.

**Remarks:** The blacktail snapper, *Lutjanus fulvus* is with its fine grey-yellow colouration, is one of the most attractive snappers. Although by no means rare, it is much less than the related *L. bohar, L. gibbus and L. kasmira*.

### فرشروب

#### Lutjanus gibbus (Forsskål, 1775)



English Name :Humpback red snapperFamily :LUTJANIDAELocal Name :GinimasOrder :PerciformesSize :Common to 25 cm; max. 50 cmSpecimen :MRS/0002/86

**Distinctive Characters:** Dorsal fin with 10 spines and 13-14 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 16-17 rays. Body depth 2.2-2.5 in standard length. Body oblong and well compressed. Dorsal profile strongly convex. Longitudinal rows of scales above lateral line appear to rise obliquely upward to dorsal profile; rows below also apparently running obliquely upward. Soft parts of dorsal and anal fins with scaly sheath. Caudal fin deeply forked; lobes rounded.

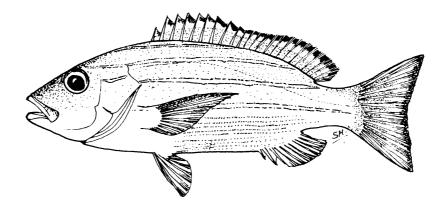
Colour: Body deep red. Caudal fin dark purple. Margins of soft dorsal and anal fins white.

**Habitat and Biology:** Inhabits coral reefs at depths from 6 to at least 30 m. Sometimes forming large aggregations, during day. Feeds on fishes, crustaceans and cephalopods.

**Distribution:** Indo-Pacific.

**Remarks:** *Lutjanus gibbus* is one of the most common Maldivian snappers. During the day immense schools carpet the reef. At night large numbers can be caught by handlining fishermen.

ى سرۇپ رىر



English Name :Bluestriped snapper, Kashmir snapperFamily :LUTJANIDAELocal Name :Dhon reendhoomasOrder :PerciformesSize :Common to 25 cm; max. 35 cmSpecimen :MRS/0115/87

**Distinctive Characters:** Dorsal fin with 10 spines and 14 or 15 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 15 or 16 rays. Body depth 2.4-2.8 in standard length. Body moderately deep. Dorsal profile of head steeply sloped. 5 or 6 scale rows on cheek. Scale rows horizontal below lateral line, but rising obliquely above it. Caudal fin slightly emarginate.

**Colour:** Yellow above, abruptly pale below, with 4 blue stripes. Fins yellow, but upper edge of pectorals rays dark. Dark dorsal spot sometimes present.

**Habitat and Biology:** Inhabits coral reefs, occurring on both shallow lagoons and on outer reef slopes to depths of at least 60 m. Forms large aggregations. Feeds on fishes, crustaceans and cephalopods.

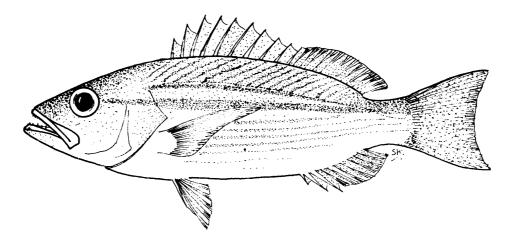
Distribution: Indo-Pacific.

**Remarks:** This common species could easily be confused with *L. bengalensis*. It can be distinguished from this and other bluestriped yellow snappers by fin, gill raker and stripe counts, and by the fact that only *Lutjanus kasmira* has dusky upper pectoral rays.

# فرشرس فركس

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#### Lutjanus madras (Valenciennes, 1831)



English Name:Indian snapper, Madras snapperFamily:LUTJANIDAELocal Name:Madharaasee masOrder:PerciformesSize:Common to 20 cm; max. 30 cmSpecimen:MRS/0171/87

**Distinctive Characters:** Dorsal fin with 10 spines and usually 13 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 16 or 17 rays. Body depth 2.6-3.1 in standard length. Predorsal scales extending to midinterorbital level. A blunt flattened spine on upper margin of opercle, above the main centrally located spine. Total gill raker on the first arch 18-21. Caudal fin truncate or slightly emarginate.

Colour: Pale with narrow horizontal yellow lines. Head pinkish. Fins yellow, except pale pelvics.

Habitat and Biology: Inhabits coral and rocky reefs usually at depths between 5 and 90 m.

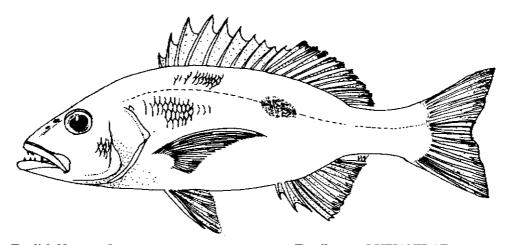
Distribution: Indo-Pacific.

**Remarks:** *Lutjanus madras* appears to be rather rare in Maldives. This report is based on a single specimen caught by trap in about 40 m near K. Feydhoofinolhu. It has also been recorded from the Laccadives, but is apparently more commonly associated with continental margins than oceanic islands.

وَعَرَبِرٌسِهِ وَسُو

دِي مُرْدَدُهُ وَدِيْ وَمُوْدُوْمُ دُيْ وَرَدُوهُ وَمُرْدُوهُ وَ وَرَدُوهِ وَوَرَدُوهِ وَهُوَهُ وَهُوهُ وَ وَهُومُ وَرَهُ وَرَدُوهِ مَا وَوَرَدُوهِ مَا وَوَرَدُوهِ مَا وَوَرَدُوهِ مَا وَوَرَدُوهُ وَمِنْ مَا مُوهُ وَوَرَدُوهُ وَمِنْ مَا مُوهُ وَوَرَدُوهُ وَمِنْ مَا وَوَرَدُوهُ وَمِنْ مَا مُرَوَعُ وَمُوهُ وَمِنْ مَا مُرَوعُ وَمَا مَرَوعُ وَالْمَرْدُومُوهُ وَمِنْ مَا مُرَوعُ وَالْمُومُ وَمِنْ وَمُومُ وَمُومُ وَمُنْ وَمُومُ وَمُنْ وَمُومُ وَمُومُ وَمُومُ وَمُنْ وَمُومُ وَمُنْ وَمُومُ وَمُنْ وَمُومُ وَمُنْ وَمُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُرَومُ وَمُومُومُ ومُومُومُ ومُومُ ومُومُومُ و

#### Lutjanus monostigma (Cuvier, 1828)



English Name :One-spot snapperFamily :LUTJANIDAELocal Name :FilolhuOrder :PerciformesSize :Common to 50 cm; max. 60 cmSpecimen :MRS/0029/86

**Distinctive Characters:** Dorsal fin with 10 spines and usually 13 (rarely 14) rays. Anal fin with 3 spines and 8 or 9 rays. Pectoral fin with 15-17 rays. Body depth 2.6-3.0 in standard length. Moderately elongate fish. Tongue with a patch of fine granular teeth, although sometimes absent in juveniles. Upper scale rows obliquely ascending. Caudal fin truncate to emarginate.

**Colour:** Yellowish. A black spot, rather diffuse, on the lateral line below the junction of spinous and the soft dorsal fin. Fins yellow.

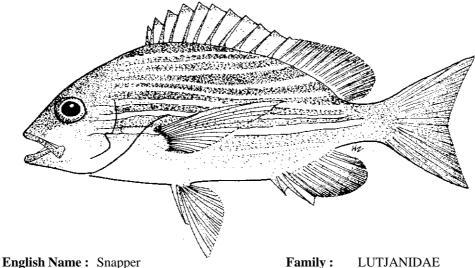
**Habitat and Biology:** Inhabits coral reef areas, usually close to shelter in the form of caves, from depths of 5-30 m. Feeds mainly on fishes and benthic crustaceans. Forms small schools.

**Distribution:** Indo-Pacific.

**Remarks:** *Lutjanus monostigma* is a moderately common species in the Maldives. It is often called "*Filolhu*" by Maldivian fishermen, although this name more properly applies to the Emperors (family Lethrinidae).



#### Lutjanus rufolineatus (Valenciennes, 1830)



Local Name: Raiy reendhoo mas Order: Perciformes
Size: Max. 30 cm Specimen: MRS/0174/87

**Distinctive Characters:** Dorsal fin with 10 or 11 spines and 13 or 14 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 16 or 17 rays. Body depth 2.4-2.6 in standard length. Scale rows rising obliquely above lateral line. Crescentic tooth patch on roof of mouth without posterior extension. Distinct preopercular notch and interopercular knob.

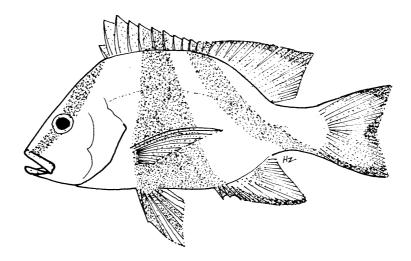
**Colour:** Pink with about 10 pale yellow stripes on sides. Fins mainly yellowish. Upper pectoral axil brown. Some specimens with a black spot on back below anterior part of soft dorsal fin.

**Habitat and Biology:** Inhabits coral reefs at depths between about 15 and 100 m. Often in schools of up to 30-40 individuals. Feeds mainly on fishes, crustaceans, cephalopods and some planktons.

**Distribution:** Maldives to Western Pacific.

**Remarks:** The two specimens reported here constitute the only record of *Lutjanus rufolineatus* from the Maldives, and indeed from the entire central Indian Ocean. The previous most westerly records were from the Indian Ocean coast of Sumatra. This species was previously recorded as *Lutjanus boutton* in the Catalogue of Fishes of the Maldives.

ئرى ئىرس قۇرۇشو س



English Name:Emperor red snapperFamily:LUTJANIDAELocal Name:MaaginimasOrder:PerciformesSize:Common to 60 cm; max. 1mSpecimen:MRS/0166/87

**Distinctive Characters:** Dorsal fin with 10 or 11 spines and 15 or 16 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 17 rays. Body very deep. Body depth 2.1-2.4 in standard length. Scale rows below lateral line ascending obliquely. Caudal fin slightly forked.

**Colour:** Reddish or pink. Smaller specimens with 3 darker bands on sides. The first runs forward across the head, the second down the centre of the body and the third curves back rom the dorsal fin to the lower part of the caudal fin.

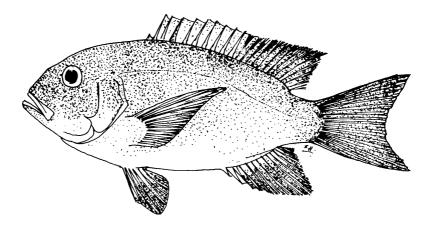
**Habitat and Biology:** Occurs in the vicinity of coral reefs, often over adjacent sand flats. Adults range from 10 to at least 100 m depth. Juveniles sometimes found in mangrove areas. Feeds on fishes, benthic crustaceans and cephalopods.

**Distribution:** Indo-West Pacific.

**Remarks:** The Emperor red snapper, *Lutjanaus sebae* can easily be recognised with its distinctive shape and colouration. It also has more soft dorsal and anal rays than other *Lutjanus*. It is rather rare in Maldives, there being very few published records of its occurrence here.

وگوسروس

دُوسِوَنَهُ مُونِهُ وَهُوَ وَهُوهُ وَمُو وَوَهُ وَمُو وَرَاهُ وَوَهُ وَوَهُ وَوَهُ وَوَهُ وَوَهُ وَرَاهُ وَهُو وَهُوهُ وَهُوهُ وَهُوهُ وَمُوهُ وَهُوهُ وَمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُوهُ وَمُؤْمُوهُ وهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَالْمُؤْمُومُ وَمُؤْمُوهُ وَمُؤْمُوهُ وَالْمُؤْمُومُ وَمُؤْمُوهُ وَالْمُؤْمُومُ وَالْمُؤْمُومُ وَالْمُؤْمُومُ وَالْمُومُ وَالْمُؤْمُومُ وَالِمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالِمُومُ وَالْمُومُ وَالِمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالِمُومُ وَالِمُومُ و



English Name :Midnight snapperFamily :LUTJANIDAELocal Name :Kalhu foniyamasOrder :PerciformesSize :Common to 40 cm; max. 60 cmSpecimen :MRS/P0332/88

**Distinctive Characters:** Dorsal fin with 10 spines and 13 rays (last divided at base). Anal fin with 3 spines and 10 rays (last divided at base). Pectoral fin with 17 or 18 rays. Body relatively deep. Juveniles with very long pelvic fins. Gill rakers on lower limb of first arch 70 to 80. Caudal fins emarginate.

**Colour:** Dull grey. Juveniles black and white, with a broad black horizontal band from eye to rear edge of opercle.

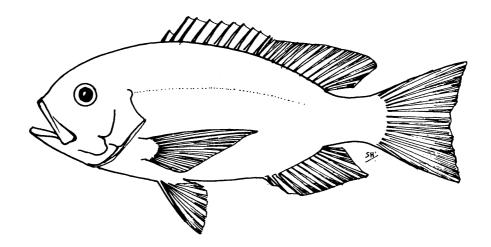
**Habitat and Biology:** Inhabits coral reefs and is usually seen solitarily. Occurs at depths between about 5 and 50 m. Feeds largely on fishes and crustaceans.

**Distribution:** Widespread in Indo-West Pacific.

**Remarks:** Both *Macolor macularis* and the closely related *M. niger* have distinctly patterned black and white juveniles. Unlike the adults these can be very easily distinguished not only on the details of the colour pattern but also on the presence of extremely long pelvic fins in juveniles of *M. macularis*.

## *ئۇۋىرىرۇۋ*ىشو

#### Macolor niger (Forsskål, 1775)



English Name:Black and white snapperFamily:LUTJANIDAELocal Name:FoniyamasOrder:PerciformesSize:Common to 35 cm; max. 60 cmSpecimen:MRS/P0144/87

**Distinctive Characters:** Dorsal fin with 10 spines and 13 or 14 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 17 or 18 rays. Body depth 2.3-2.9 in standard length. Body relatively deep. Gill rakers on lower limb of first gill arch 60-70. Juveniles with very long pectoral fins. Caudal fin truncate or slightly emarginate.

**Colour:** Adults grey, in life with dusky yellow mottling on face. Juveniles black and white, without a black horizontal band from eye to operculum edge.

**Habitat and Biology:** Inhabits coral reefs and is usually seen solitary, sometime in large schools. Occurs at depths between 5 and 90 m. Feeds largely on fishes and crustaceans.

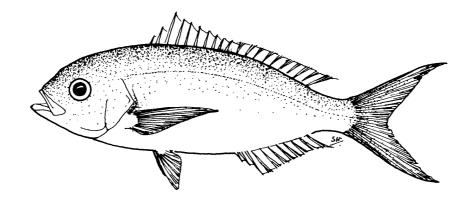
**Distribution:** Indo-West Pacific.

**Remarks:** Juveniles of the two species of *Macolor* are sometimes used in the aquarium fish trade. They can be distinguished by colour pattern (there is a white band behind the eye in *Macolor niger*) and pelvic fin length (very long in *Macolor macularis*).

# بخ سر مرک<sup>و</sup> شو

وَوَرُوْ وَهِ تَمْرِهُ وَهِ تَمْرِهُ وِ 10 رَمْنَدُهُ أَنَّ 11 مُوَمَّ 14 وَلَا سَرَمْرُوْ . هَسَلَوْ وَهُوَمُ وَكُوْ مُوَمِ 14 وَلَا سَرَمْرُوْ . هَسُورُ وَهُوَمُ وَهُوَ مُومِ وَهُوَمُ وَهُو مُومِوْ وَهُومُ وَمُومُ وَهُومُ وَمُومُ وَهُومُ وَمُومُ وَهُومُ وَمُومُ وَمُومُومُ وَمُومُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُومُ وَمُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُ وَمُومُومُ ومُومُومُ وَمُومُومُ وَمُومُومُومُ وَمُومُومُومُ وَمُومُومُومُ وَمُومُومُ وَمُومُومُومُ وَمُومُومُومُ وَمُومُومُ وَمُومُومُومُ وَمُومُومُ وَمُومُومُومُ وَمُومُومُومُ وَمُومُومُ وَمُومُومُومُ وَمُومُومُومُ وَمُومُومُومُومُ وَمُومُومُومُ وَمُومُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ وَمُومُومُ ومُومُومُ ومُومُ ومُومُ

#### Paracaesio sordidus Abe and Shinohara, 1962



English Name:Blue snapperFamily:LUTJANIDAELocal Name:NoomasOrder:PerciformesSize:Max. 40 cmSpecimen:MRS/P0161/87

**Distinctive Characters:** Dorsal fin with 10 spines and 9-10 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 16-17 rays. Body depth 2.5 times in standard length. Body moderately deep, but fusiform. Pectoral fins long, reaching level of anus. Dorsal and anal fins scaleless. Eye large, just above line from tip of upper jaw to middle of caudal fin. Interorbital space convex. Caudal fin deeply forked.

**Colour:** Overall dark purplish-brown to bluish; silvery or whitish on lower sides and belly. Dorsal and caudal fins brownish to slightly yellow, other fins whitish to translucent.

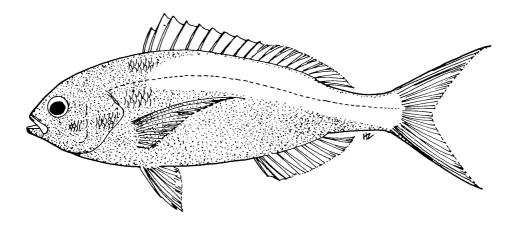
Habitat and Biology: Occurs over rocky bottoms between about 50 to 200 m.

**Distribution:** Tropical Indo-Pacific.

**Remarks:** *Paracaesio sordidus* can easily be distinguished from the related *P. xanthurus* on the basis of colour pattern. *P. sordidus* is sometimes seen in small schools by divers on deep outer reef slope.

تثروث

#### Paracaesio xanthurus (Bleeker, 1869)



English Name : Yellowtail blue snapperFamily : LUTJANIDAELocal Name : Nigoodhon noomasOrder : PerciformesSize : Max. 40 cmSpecimen : MRS/0177/87

**Distinctive Characters:** Dorsal fin with 10 spines and 10 (rarely 11) rays. Anal fin with 3 spines and 8 (rarely 9) rays. Pectoral fin with 16 rays. Body depth 2.6-3.1 in standard length. Body moderately deep, fusiform. Large eyes. Interorbital space convex. Maxilla with or without scales. Dorsal and anal fins scaleless. Pectoral fins long, reaching level of anus. Caudal fin deeply forked.

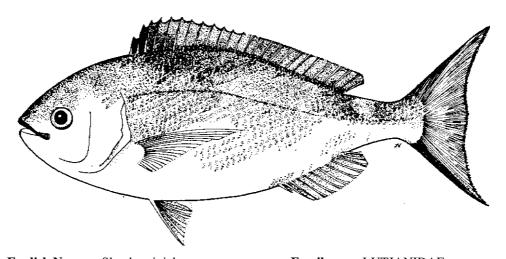
**Colour:** Overall blue, sometimes whitish on belly and lower part of head. A bright yellow area on back and caudal fin.

**Habitat and Biology:** Occurs over rocky bottoms. Sometimes forming large schools at depths between 20 and 150 m. Feeds largely on zooplankton.

**Distribution:** Indo-Pacific.

**Remarks:** *Paracaesio xanthurus* appears to be uncommon in Maldives. Because of its distinctive blue and yellow colouration it is unlikely to be confused with the closely related *P. sordidus* but may be confused with the common and similarly coloured yellowfin fusilier (*Caesio xanthonata*). That species, however, is noticeably more slender.

سر محفر شر شروکسو سر



English Name :Slender pinjaloFamily :LUTJANIDAELocal Name :Kandu kirulhiyamasOrder :PerciformesSize :Common to 30 cm; max. 50 cmSpecimen :MRS/P0133/87

**Distinctive Characters:** Dorsal fin with 12 spines and 13 rays. Anal fin with 3 spines and 8-9 rays. Pectoral fin with 17 rays. Body moderately deep. Dorsal profile of head high; interorbital space strongly convex. Mouth small, the maxilla reaching below front of eye. Pectoral fins long, reaching levels of anus. Scale rows oblique. Caudal fin emarginate.

**Colour:** Pink, silvery below. Pelvic and anal fins pale, pink or white. Sometimes with white spot on upper part of caudal peduncle.

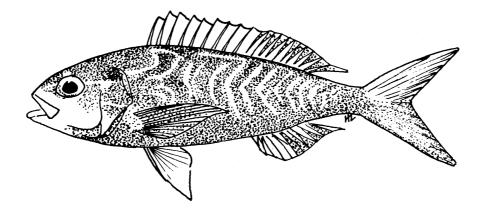
**Habitat and Biology:** Inhabits reefs and rocky bottoms of depths of about 60 m. Feeds on benthic and planktonic invertebrates and possible on small fishes.

Distribution: Indo-West Pacific.

**Remarks:** The confusion between *Pinjalo lewisi* and the related *P. pinjalo* was cleared up by Randall, Allen and Anderson, (1987). *P. pinjalo* is very similar in overall appearance, but has a dorsal with 11 spines and 14-15 rays, and anal fin with 9-10 (usually 10) rays; it also has yellow pelvic and anal fins. It appears that *P. pinjalo* occurs more around continental margins, while *P. lewisi* is more at home near oceanic islands.

# ماس في مر تروير وكو

#### Pristipomoides auricilla (Jordan, Evermann and Tanaka, 1927)



English Name:Slender pinjaloFamily:LUTJANIDAELocal Name:Kandu kirulhiyamasOrder:PerciformesSize:Common to 25 cm; max. 45 cmSpecimen:MRS/0309/88

**Distinctive Characters:** Dorsal fin with 10 spines and 11 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 16 rays. Body depth 3.1-3.6 in standard length. Body elongate and robust. Tongue with teeth. Vomerine tooth patch triangular. Bases of dorsal and anal fins scaleless, their last soft rays extended into short filaments. Pectoral fins long, reaching level of anus. Caudal fin forked.

**Colour:** Purplish with many yellow spots or faint yellow lines. Fins yellow. Lower lobe of caudal may be grey in females.

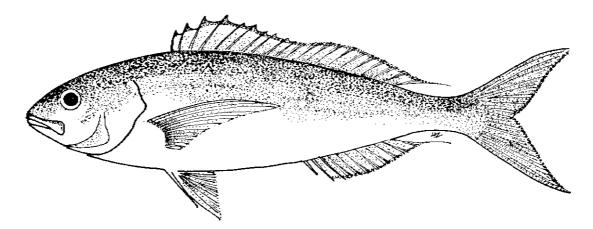
**Habitat and Biology:** Occurs over rocky bottoms between about 90 to 360 m, most abundant from about 180 to 270 m. Feeds on fishes, pelagic tunicates and salps (a planktonic tunicate).

**Distribution:** Widespread in tropical Indo-Pacific.

**Remarks:** A total of 4 specimens of *Pristipomoides auricilla* were caught by the research vessel "Farumas" while bottom longlining in about 80-100 m of water outside Male Atoll. This apparently constituted the first record of this species from the west of the Andaman Sea.

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English Name :Crimson jobfishFamily :LUTJANIDAELocal Name :Jambu giulhuOrder :PerciformesSize :Common to 50 cm; max. 80 cmSpecimen :MRS/0175/87

**Distinctive Characters:** Dorsal fin with 10 spines and 12 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 15 or 16 rays. Body depth 3.3-3.8 in standard length. Body elongate and robust. Interorbital space broad. Lower jaw slightly protruding. Pectoral fins long, reaching level of anus.

**Colour:** Sides and back red-brown with blue flecks (silvery when first caught). Margins of dorsal and caudal fins distinctive rusty orange.

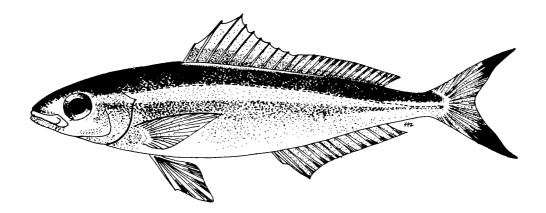
**Habitat and Biology:** Occurs over rocky bottoms at depths between 90 and 360 m. Moves to the upper portion of its depth range at night to feed on small fishes and crustaceans.

**Distribution:** Indo-Pacific.

**Remarks:** Until recently *Pristipomoides filamentosus* appeared to be rare in Maldives, but this was a result of its deep dwelling habits. Fishermen have in the last couple of years started deep handlining outside the atolls; as a result this species and other deep living fishes now appear fairly regularly in Malé fish market. The two specimens on which this report is based were caught by longline in about 150 to 200 m depth outside K. Makunudhoo.

ر ۵ و د د د قے سر ص ی کر بر

#### Pterocaesio chrysozona (Cuvier, 1830)



English Name :Goldband fusilierFamily :LUTJANIDAELocal Name :Mas muguraanOrder :PerciformesSize :Common to 14 cm; max. 21 cmSpecimen :MRS/0047/86

**Distinctive Characters:** Dorsal fin with 10 spines and 15 (rarely 14) rays. Anal fin with 3 spines and 12 (rarely 11) rays. Body depth 3.4-4.0 in standard length. An elongate, fusiform and compressed fish. Maxillary extended below the front border of eye. Eye moderately large. Pectoral fin equal to the head length without snout. Bases of dorsal and anal fin covered with scales.

**Colour:** Bluish dorsally. Sides with a yellow band just below lateral line anteriorly running from the eye to the caudal fin base. Fins yellowish. Caudal fin lobes black.

**Habitat and Biology:** Inhabits shallow waters, rocky and coral reef areas. Feeds on zooplankton in large midwater aggregations.

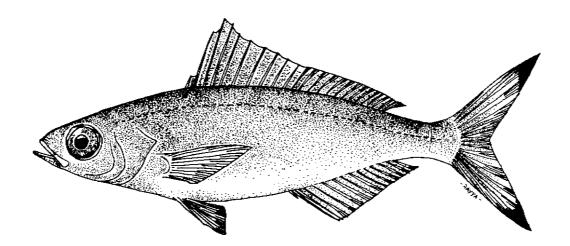
**Distribution:** Indo-West Pacific.

**Remarks:** *Pterocaesio chrysozona*, along with several others species of fusiliers, are used as juveniles as livebait in the pole and line tuna fishery. It has been estimated that roughly 2000 t of "muguraan" (fusiliers) are used annually as livebait in the Maldives.

وُسُودُ وَحُرِيرُهُ

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## Pterocaesio pisang (Bleeker, 1853)



English Name :Banana fusilierFamily :LUTJANIDAELocal Name :Mas muguraanOrder :PerciformesSize :Common to 10 cm; max. 21 cmSpecimen :MRS/0498/97

**Distinctive Characters:** Dorsal fin with 10 spines and 15 (rarely 14 or 16) rays. Anal fin with 3 spines and 12 (rarely 11 or 13) rays. Pectoral fin with 18-20 rays. Body depth 3.8-4.2 in standard length. Body fusiform, elongate and compressed. Bases of dorsal and anal fin covered with scales.

**Colour:** Dark red to silvery, paler ventrally. Lateral line darker than the background colouration. No stripes or bands on sides. Snout often yellowish. Tips of caudal lobes dark red to black.

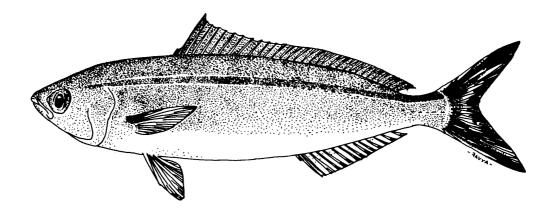
**Habitat and Biology:** Inhabits coastal waters and coral and rocky reef. A schooling fish, sometimes in groups with other species of the genus. Feeds on zooplankton in midwater aggregations.

**Distribution:** Indo-West Pacific.

**Remarks:** *Pterocaesio pisang* is a bait of major importance of tuna fishery in the Maldives. Around Malé, fusiliers are used as live bait most frequently during the northeast monsoon season. Fusiliers are previously recorded under the family Caesionidae.

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## Pterocaesio tile (Cuvier, 1830)



English Name :Dark-banded fusilierFamily :LUTJANIDAELocal Name :Garahitha muguraanOrder :PerciformesSize :Common to 18 cm; max. 30 cmSpecimen :MRS/0500/97

**Distinctive Characters:** Dorsal fin with 11 or (rarely 10) spines and 19-22 rays. Anal fin with 3 spines and 13 rays. Pectoral fin with 22-24 rays. Body depth 3.8-4.4 in standard length. Body fusiform, elongate and compressed. Bases of dorsal and anal fin covered with scales.

**Colour:** Scales above the lateral line bluish green in their centres and black on their margins. Lateral line covered for most of its length by a black stripe about one scale width with a broad brilliant light blue zone below it. Lower third of body white to pinkish. Caudal fin with a black streaks on each lobe.

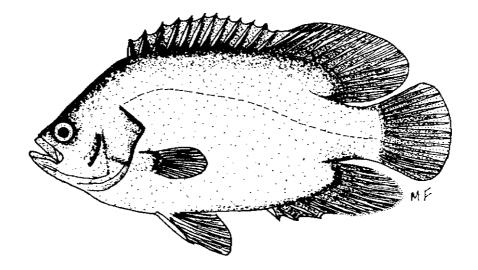
**Habitat and Biology:** Inhabits coastal waters and coral and rocky reef. A schooling fish, sometimes in groups with other fusiliers. Feeds on zooplankton in midwater aggregations.

Distribution: Indo-Pacific.

**Remarks:** *Pterocaesio tile* is one of the most common of the fusiliers in the Maldives. Juveniles are often used as live bait by tuna fishermen. Larger neon-blue-striped individuals form gleaming schools on the reefs, which are a greater attraction for divers.

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## Lobotes surinamensis (Bloch, 1790)



English Name : TripletailFamily : LOBOTIDAELocal Name : Kandu faana, Huifathu masOrder : PerciformesSize : Common to 50 cm; max. 1 mSpecimen : MRS/P0320/88

**Distinctive Characters:** Dorsal fin with 11-13 spines and 13-16 rays. Anal fin with 3 spines and 9-12 rays. Pectoral fin with 17 rays. Body depth 2.0-2.5 in standard length. Body oval to oblong. A single dorsal fin with stout spines and elevated posterior section. Dorsal fin lobe rounded. Preopercle coarsely serrate. Roof of mouth and tongue toothless. Caudal fin rounded.

**Colour:** Olive to dark brown, mottled with dark spots. Juveniles yellow with darker spots.

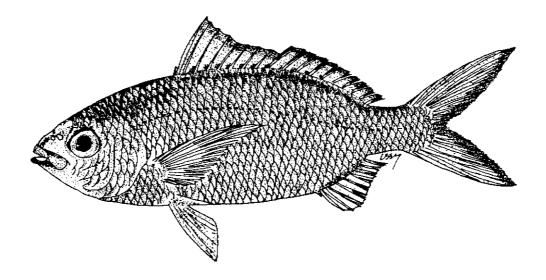
**Habitat and Biology:** Inhabits both in coastal areas and in open sea around floating objects. Juveniles may sometimes be seen in very shallow water where they have a resemblance to floating leaves or weeds. Feeds mainly on bottom-dwelling crustaceans and small fish.

**Distribution:** Worldwide in tropical and subtropical waters.

**Remarks:** Adults of *Lobotes surinamensis* when seen offshore may appear rather like groupers. This explains the fishermen's name "kandu faana" (ocean grouper). Juveniles, which are sometimes seen in shallow weedy lagoons, have been called "huifathu mas".

مُسرع تُرُّسُر

#### Gerres oyena (Forsskål, 1775)



English Name :Common silverbiddyFamily :GERREIDAELocal Name :UniyaOrder :PerciformesSize :Common to 15 cm; max. 25 cmSpecimen :MRS/0064/87

**Distinctive Characters:** Dorsal fin with 9 spines and 10 rays. Anal fin with 3 spines and 7 rays. Pectoral fin with 15 or 17 rays. Body depth 3.0-3.3 in standard length. Body very slender. Second anal spine slender and short, equal to or shorter than eye diameter. Caudal fin deeply forked.

**Colour:** Pale olive above to silvery below. 7 or 8 faint dusky bars on sides of body, more pronounced in juveniles. Prominent black tips to spinous part of dorsal fin. Caudal fin uniformly dusky.

**Habitat and Biology:** Occurs along sandy beaches to a depth of 20 m. Also enters estuaries and brackish lagoons. Feeds on small organisms living on sandy bottoms.

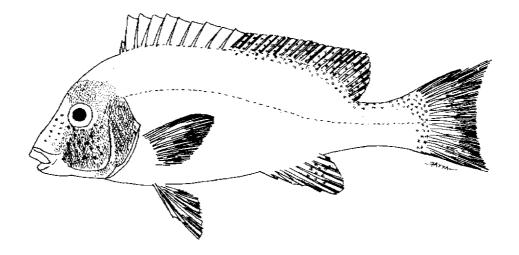
Distribution: Indo-Pacific.

**Remarks:** *Gerres oyena* is common in shallow sandy lagoons of Maldives. It was previously wronly identified as *G. lucidus* Cuvier in the Catalague of Fishes of the Maldives, Vol. 1, page 66.

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## Diagramma pictum (Thunberg, 1792)



English Name : Painted sweetlipsFamily : HAEMULIDAELocal Name : Kilanbu guruvaOrder : PerciformesSize : Max. 90 cmSpecimen : MRS/P0481/97

**Distinctive Characters:** Dorsal fin with 9-10 spines and 17-20 rays. Anal fin with 3 spines and 7 rays. Pectoral fin with 16-17 rays. Second dorsal spine much longer than the first. 20 to 25 scales between lateral line and dorsal fin origin. Scales small and ctenoid. Mouth small, lips thick.

**Colour:** Adults light grey with scattered large blackish blotches on sides, white on belly. Juveniles with conspicuous alternating black and white stripes, and yellowish on head and belly. Stripes eventually break up into spots that disappear in adults.

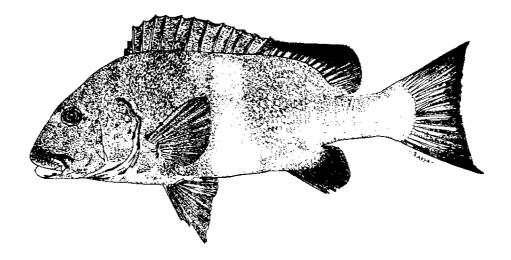
**Habitat and Biology:** Found on shallow coastal areas and coral reefs down to a depth of 80 m. Most common in silty areas. Feeds on bottom invertebrates and fish.

**Distribution:** Indo-West Pacific.

**Remarks:** *Diagramma pictum* can easily be distinguished from other sweetlips by its short, first dorsal spine and second (with the third) abruptly the longest.

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## Plectorhinchus albovittatus (Rüppell, 1838)



English Name :Giant sweetlipsFamily :HAEMULIDAELocal Name :Maa guruvaOrder :PerciformesSize :Max. 1 mSpecimen :MRS/P0301/88

**Distinctive Characters:** Dorsal fin with 13 spines and 18-19 rays. Anal fin with 3 spines and 7 rays. Pectoral fin with 17 rays. Lips greatly enlarged. Caudal fin slightly emarginate.

**Colour:** Adults light grey with numerous pale spots and short irregular lines. Usually a broad diffused pale bar just behind pectoral fins, extending onto abdomen. Soft portion of dorsal fin and lobes of caudal fin with large black areas. Anal, pelvic and pectoral fin black or partially black.

**Habitat and Biology:** Usually seen over reef flats and rubble slopes to depths between 8-50 m. Roams in loose aggregations.

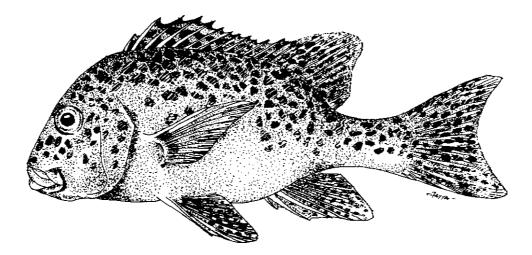
**Distribution:** Indo-West Pacific.

**Remarks:** *Plectorhinchus albovittatus* is the largest species of this family. It is not a particular common species in the Maldives with few records of its occurrence. *P. obscurum* (Gunther) and *P. harrawayi* (Smith) are synonyms.

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## Plectorhinchus chaetodonoides Lacepède, 1800



English Name:Harlequin sweetlipsFamily:HAEMULIDAELocal Name:Galu guruvaOrder:PerciformesSize:Max. 65 cmSpecimen:MRS/P0480/97

**Distinctive Characters:** Dorsal fin with 13 spines and 18-19 rays. Anal fin with 3 spines and 8 rays. Gill rakers on lower limb of first gill arch less than 25. Lips fleshy, moderately swollen with age. Scales etenoid (rough to touch). Height of soft dorsal fin about equal to length of its base.

**Colour:** Adults overall whitish with numerous brown spots that extend onto most fins. Belly sometimes dusky brownish. Juveniles brown with large dark edged white spots.

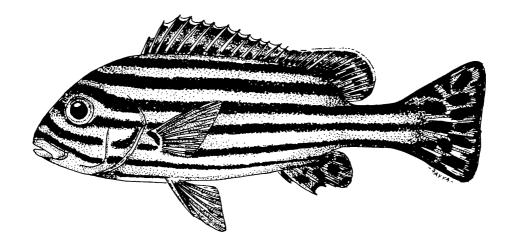
**Habitat and Biology:** Found in coastal waters near reefs to depths of 35 m. Common in rich coral areas of clear lagoons and seawards reefs. Usually seen hovering under ledges and table corals. Feeds primarily at night on crustaceans, molluscs and fish.

Distribution: Indo-West Pacific.

**Remarks:** Juveniles of *Plectorhinchus chaetodonoides* appear to mimic a toxic nudibranch or polyclad flatworm. Juveniles also exported as aquarium fish. The family Haemulidae is currently being scientifically revised by Dr. Roland McKay of the Queensland Museum.

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## Plectorhinchus vittatus (Linnaeus, 1758)



English Name :Oriental sweetlipsFamily :HAEMULIDAELocal Name :Kandu guruvaOrder :PerciformesSize :Max. 55 cmSpecimen :MRS/P0098/87

**Distinctive Characters:** Dorsal fin with 13 spines and 17-20 rays; the second to the fifth spine longest and subequal. Anal fin with 3 spines and 7-8 rays. Lips fleshy, swollen with age.

**Colour:** Varies greatly with age. Juveniles with connected black blotches that gradually break up in adults into horizontal bands which unite at tip of snout. Pectoral fins black in juveniles, becoming uniform yellow in adults. Median fins with black margin. Tail spotted with age.

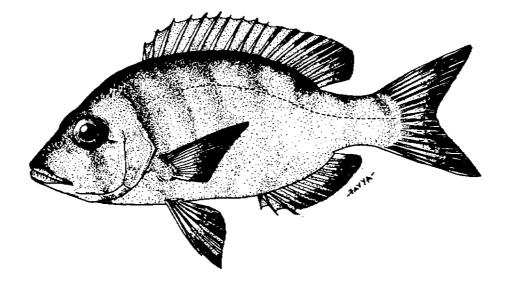
**Habitat and Biology:** Inhabits coral reefs and inshore rocky reefs to a depth of 42 m. Adults often form aggregations. Feeds on benthic crustaceans and molluscs. Juveniles extremely active.

Distribution: Indo-West Pacific.

**Remarks:** *Plectorhinchus vittatus* is the most commonly seen sweetlips in the Maldivian reefs. Adults not shy of divers but juveniles tend to hide among coral branches. Juveniles are exported as aquarium fish. This species was previously known as *P. orientalis*.

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## Gymnocranius griseus (Schlegel, 1844)



**English Name:** Grey large-eye bream **Family:** LETHRINIDAE

Local Name: Kandu uniya Order: Perciformes

Size: Common to 25 cm; max. 30 cm Specimen: MRS/0072/86

**Distinctive Characters:** Dorsal fin with 10 spines and 10 rays. Anal fin with 3 spines and 10 rays. Pectoral fin with 14 rays. Body depth 1.9-2.3 in standard length. Body oblong. Dorsal and ventral profile of head evenly convex, or ventral profile slightly straighter. Eyes relatively large, 6 moderate canines in front of each jaw. Posterior part of jaws reaching to about level of anterior nostrils.

**Colour:** Overall silvery, frequently with a diffused to vivid pattern of 5 to 8 narrow dark bars on side. Often a narrow brown bar across bases of caudal fin. Some adult individuals possess a few scattered blue spots or scribbling on the snout and cheek. Dark subocular bar present.

**Habitat and Biology:** Inhabits coastal waters, usually at depths between 20-80 m, sometimes forms schools. Feeds mainly on benthic invertebrates.

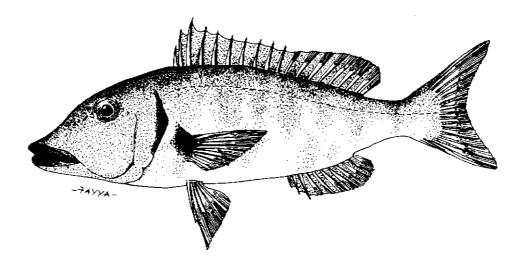
**Distribution:** Indo-West Pacific.

**Remarks:** *Gymnocranius griseus* is characterised by a relatively deep body in both small juveniles and adults. Fishes of this family are food fishes, which are marketed fresh or dried and salted. *Lobotes microprion* Bleeker is a junior synonym based on the juvenile.

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English Name :Redaxil emperorFamily :LETHRINIDAELocal Name :Thun raiy filolhuOrder :PerciformesSize :Common to 50 cm; max. 76 cmSpecimen :MRS/P0134/87

**Distinctive Characters:** Dorsal fin with 10 spines and 9 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 13 rays. Body depth 3.2-3.4 in standard length. Body elongate. Eye placed well below the dorsal profile. Snout long and thin, with a distinct hump before eyes. Interorbital space prominently convex. Lips fleshy, not following profile of snout but instead curving outward from the snout.

**Colour:** Body and head brownish or grey, lighter ventrally. Lips, base and patch above base of pectoral fin and edge of operculum red. Fins orangish, dusky or mottled.

**Habitat and Biology:** Inhabits deeper coastal waters down to depths of 220 m. Feeds primarily on fish and crustaceans.

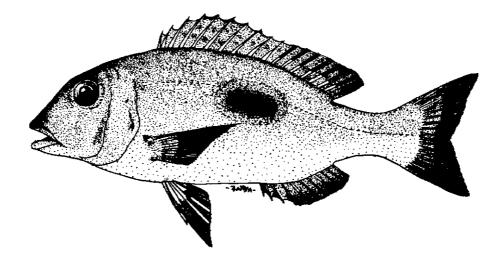
Distribution: Indian Ocean.

**Remarks:** *Lethrinus conchyliatus* resembles the adult form of *L. variegates* in general appearance. But *L. conchyliatus* is much larger in size and has distinctive red marks on edge of opercle, and on pectoral base. In the Maldives this species is mainly caught by handlines during the day.

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## Lethrinus harak (Forsskål, 1775)



English Name:Thumbprint emperorFamily:LETHRINIDAELocal Name:Lah filolhu, Vilu filolhuOrder:PerciformesSize:Common to 30 cm; max. 50 cmSpecimen:MRS/P0120/87

**Distinctive Characters:** Dorsal fin with 10 spines and 9 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 13 rays. Body depth 2.6-2.8 in standard length. Body moderately deep. Posterior lateral teeth include distinct molars in adults. Inner surface of pectoral fin base densely scaled.

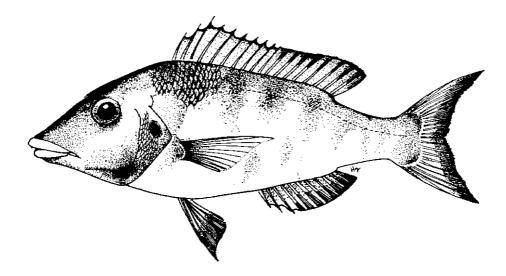
**Colour:** Olive green above and ligher below. Blue spots sometimes under eye and between nostrils. Throat and edge of lips rosy red. A large, black, oblong blotch often with a golden yellow rim present on side of body. All fins pinkish or rosy red. Vertical fins sometimes mottled or striped.

**Habitat and Biology:** Inhabits shallow sandy areas, coral rubbles, mangroves, lagoons and seagrass areas. Most often observed solitary. Feeds on benthic invertebrates, molluscs and small fish.

Distribution: Indo-West Pacific.

**Remarks:** *Lethrinus harak* is the least wary species of the genus and can approach easily. It is a common emperor on the shallow reef flats and sea grass areas of the Maldives.

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English Name:Spotcheek emperorFamily:LETHRINIDAELocal Name:KalhihiOrder:PerciformesSize:Common to 30 cm; max. 50 cmSpecimen:MRS/0010/86

**Distinctive Characters:** Dorsal fin with 10 spines and 9 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 13 rays. Body depth 3.0-3.4 in standard length. Body moderately elongate. Interorbital space flat or only slightly convex. Wide scaleless area on upper posterior margin of opercle. Eye placed very near dorsal profile. Caudal fin lunate; upper lobe usually longer.

**Colour:** Body olive-grey or brown with scattered irregular small black blotches. Lips and a spot on upper edge of operculum usually red. Fins pale or pinkish.

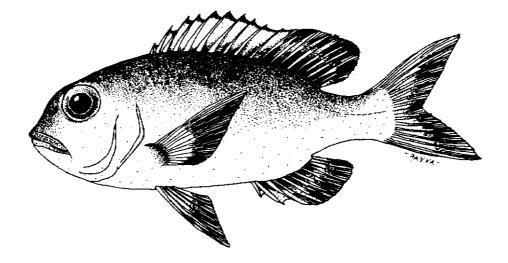
**Habitat and Biology:** Inhabits sandy and rubble areas of outer reef slopes to depths of 160 m. Feeds mostly on crustaceans, fish, echinoderms and molluscs.

**Distribution:** Widespread in the Indo-West Pacific.

**Remarks:** Lethrinus rubrioperculatus is a common and widespread species but it is surprising that it was described and named as late as 1978. It was assumed that this species represented the adult form of *L. variegatus*. However, *L. variegatus* is much smaller. A good-food fish.

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#### Monotaxis grandoculis (Forsskål, 1775)



English Name:Humpnose big-eye breamFamily:LETHRINIDAELocal Name:DhonguOrder:PerciformesSize:Common to 40 cm; max. 60 cmSpecimen:MRS/0107/87

**Distinctive Characters:** Dorsal fin with 10 spines and 10 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 14 rays. Body depth 2.1-2.7 in standard length. Body oblong. Eyes relatively large. Head profile strongly convex in front of eyes. Cheeks with several rows of scales. Inner base of pectoral fins scaled. Molars present on side of jaws. Maxilla with a longitudinal denticulated ridge.

**Colour:** Adults bluish grey above, paler below with centers of scales silvery and a few brownish scales generally present on sides. In life may appear either fairly dark and brown or pale and silvery. Juveniles white with 3 dark dorsal saddles; juveniles lose bars on preservation.

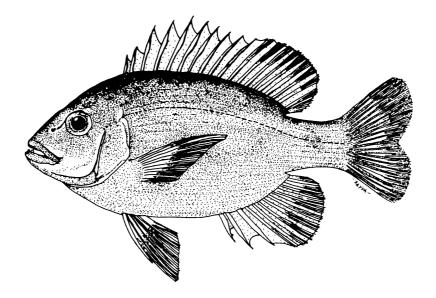
**Habitat and Biology:** Often seen near coral reefs at depths of 3 to 60 m. Nocturnal. Feeds heavily on molluscs, crabs, hermit crabs and sea urchins. Solitary, but large adults form small aggregations.

**Distribution:** Indo-West Pacific.

**Remarks:** Two distinct colour forms of *Monotaxis grandoculis* are seen which led to speculation that two species may be involved. Normally not caught by Maldivian fishermen.

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#### Wattsia mossambica (Smith, 1957)



English Name:Mozambique large-eye breamFamily:LETHRINIDAELocal Name:Dhon kothari filolhuOrder:PerciformesSize:Max. 55 cmSpecimen:MRS/0475/97

**Distinctive Characters:** Dorsal fin with 10 long, strong spines and 10 rays. Anal fin with 3 strong spines and 10 rays. Pectoral fin with 14 rays. Body depth 1.9-2.2 in standard length. Body deep. Eye moderate in size. Head profile strongly convex. Maxilla with a longitudinal denticulate ridge. A pair of close-set nasal openings. Caudal fin very slightly forked with broadly rounded lobes.

**Colour:** Overall silvery-grey suffused with yellow. Margins of scales narrowly brownish. Lips whitish to yellow. Fins yellow, faint brown spotting may be present on soft dorsal, anal, and caudal fins.

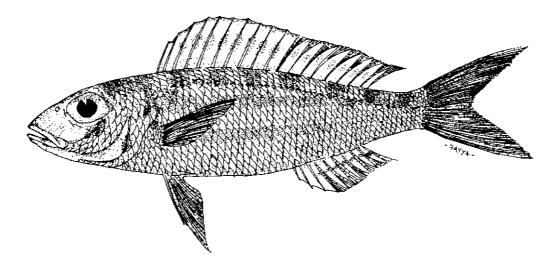
**Habitat and Biology:** Inhabits outer edge of reefs and continental shelves at depths ranging from 100 to 180 m. Feeds on bottom-living invertebrates and small fishes.

**Distribution:** Indo-West Pacific.

**Remarks:** *Wattsia mossambica* is a rather deep-dwelling species, hence it is not encountered very often. It is occasionally caught in Maldives with deep handlines (usually deeper than 70 m) outside the atolls.

## نده ۱۲۰ مر بر و و و و و و و و و

## Nemipterus furcosus (Valenciennes, 1830)



English Name :Fork-tailed threadfin breamFamily :LETHRINIDAELocal Name :Dhon kandu uniyaOrder :PerciformesSize :Max. 22.5 cmSpecimen :MRS/0443/96

**Distinctive Characters:** Dorsal fin with 10 spines and 9 rays. Anal fin with 3 spines and 7 rays. Pectoral fin with 2 unbranched and 13-16 branched rays. Body depth 3.0-3.9 in standard length. Pelvic fins moderately long, reaching to or short of anus. A line drawn upwards from posterior edge of sub-orbital reaching the dorsal profile at about origin of dorsal fin. Caudal fin deeply forked.

**Colour:** Head and body pale irridescent pink. Back with 9 indistinct cross bars. Caudal fin pale rosy, the lower margin white-edged. Pelvic fins and axillary scales white. Dorsal and pectoral fins rosy.

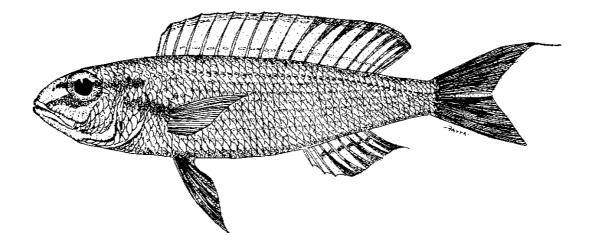
**Habitat and Biology:** Benthic species. Inhabits sandy and muddy bottoms in depths of 8 to 110 m. Feeds during the day, mostly on crustaceans and small fishes.

**Distribution:** Indo-West Pacific.

**Remarks:** *Nemipterus furcosus* is not a commonly caught species in the Maldives. However, it does appear in the Male fish market occasionally.

## בלת עות בתתנת

## Nemipterus Zysron (Bleeker, 1856-57)



**English Name:** Slender threadfin bream **Family:** NEMIPTERIDAE

Local Name :Janbu kandu uniyaOrder :PerciformesSize :Max. 18.5 cmSpecimen :MRS/0447/96

**Distinctive Characters:** Dorsal fin with 10 spines and 9 rays. Anal fin with 3 spines and 7 rays. Pectoral fin with 2 unbranched and 13-16 branched rays. Body depth 3.8-4.6 in standard length. Body elongated. Lower margin of eye tangential to or just above a line from tip of snout to upper base of pectoral fin. Pectoral and pelvic fins short, not reaching anus. Caudal fin forked, upper lobe prolonged.

**Colour:** Upper part of body reddish, silvery below. Dorsal fin yellow with a bright yellow margin. Anal fin pale lilac with a series of elongated yellow spots. Caudal fin pinkish, lobes pale yellow.

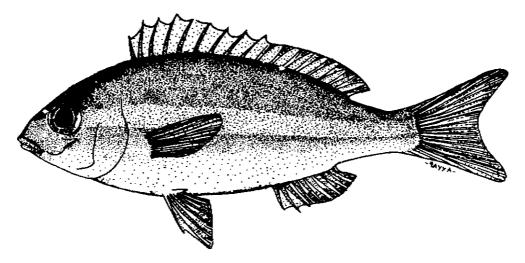
**Habitat and Biology:** Benthic species. Inhabits sandy bottoms near rocks in depths between 10 and 125 m. Swims in groups. Feeds on benthic organisms.

**Distribution:** Indo-West Pacific.

**Remarks:** *Nemipterus zysron* appear to be rather uncommon in the Maldives. This species has been treated under the name *N. metopias* by most previous authors.

## ا مرد مرد در مرد

وَرُوَ فَوَرَسُرُومُ ثَنَى مِورِي آلَ مِنْ مَوْدُورُ اللهِ مَا مُوَا مُورُومُ اللهِ وَالْمَارِرُمُرُونُ اللهِ وَالْمَارِومُ وَاللهِ وَالْمَارِومُ وَاللهِ وَالْمَارِومُ وَاللهِ وَالْمَارِومُ وَاللهِ وَاللّهِ وَاللّهِ وَاللّهِ وَاللّهِ وَاللّهِ وَاللّهِ وَاللّهِ وَاللّهِ وَاللّه



**English Name:** Yellow-stripe monocle bream **Family:** NEMIPTERIDAE

Local Name :Dhon fattaa kandu uniyaOrder :PerciformesSize :Max. 21 cmSpecimen :MRS/0181/88

**Distinctive Characters:** Dorsal fin with 10 spines and 9 rays. Anal fin with 3 spines and 7 rays. Pectoral fin with 2 unbranched and 15 or 16 branched rays. Body depth 2.9-3.1 in standard length. 4 rows of transverse scales between lateral line and first dorsal spine. Patch of scales on top of head truncated anteriorly. Pelvic fins long, reaching to or just beyond anus. Caudal fin forked.

**Colour:** Body silvery-white, dusky blue on back. A broad golden-yellow line from behind eye to caudal fin. Snout dusky. A narrow pale bluish stripe joining eyes behind nostrils. Caudal fin golden-yellow.

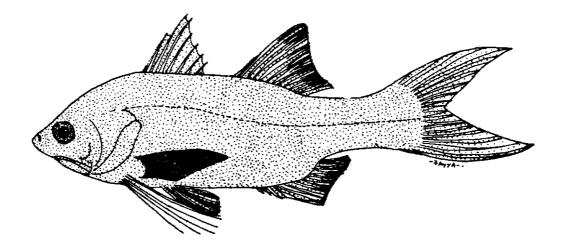
**Habitat and Biology:** Benthic species. Inhabits shallow waters. Usually found over sandy areas within reefs. Feeds primarily on small benthic crustaceans.

Distribution: Eastern Indian Ocean, including the Maldives.

**Remarks:** *Scolopsis auratus* was previously referred as *S. personatus* by most authors. Members of the genus *Scolopsis* are common in the Maldives.

# ב מנות ל מש שת ב התחת

## Polydactylus sexfilis (Valenciennes, 1831)



English Name :Six-fingered threadfinFamily :POLYNEMIDAELocal Name :KeylaOrder :PerciformesSize :Common to 20 cm; max. 30 cmSpecimen :MRS/P0112/87

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 13 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 15 and 6 free filamentous rays. Body oblong and somewhat compressed. Snout projecting, mouth moderately large with small teeth. Upper lip absent, lower lip well developed. Scales small and ctenoid. Caudal fin forked with equal lobes.

**Colour:** Silvery with bronze lines following scale rows. Pectoral fins blackish. Pelvic fins dark in the middle. Small juveniles (4 cm) with broad dark bars and black areas on all fins except pectorals.

**Habitat and Biology:** Occurs mainly in shallow sandy shores and estuaries. Feeds mainly on small crustaceans, fishes and bottom-living organisms.

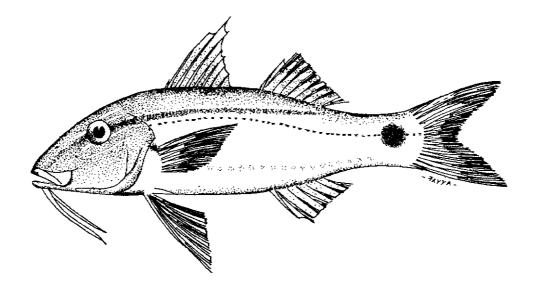
**Distribution:** Indian Ocean to Hawaiian Islands and Tuamotu Archipelago.

**Remarks:** *Polydactylus sexfilis* is common in shallow sandy shores of Maldives. This species is sometimes described under the genus *Polynemus*.

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## Parupeneus barberinus (Lacepède, 1801)



English Name :Dash-dot goatfishFamily :MULLIDAELocal Name :Maa kalhuoh'Order :PerciformesSize :Common to 30 cm; max. 50 cmSpecimen :MRS/0413/93

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 8 rays. Anal fin with 1 spine and 6 rays. Pectoral fin with 16-18 (usually 17) rays. Body depth 3.2-3.5 in standard length. Body slightly elongate. Chin with two slender barbels which are shorter than or equal to snout plus eye. Snout long, 3 vertical rows of scales in space between dorsal fins.

**Colour:** Pale brown to reddish brown dorsally shading to whitish on sides and ventrally. A dark reddish brown stripe from snout through eye below rear of anal fin. A black spot larger than eye just anterior to midbase of caudal fin.

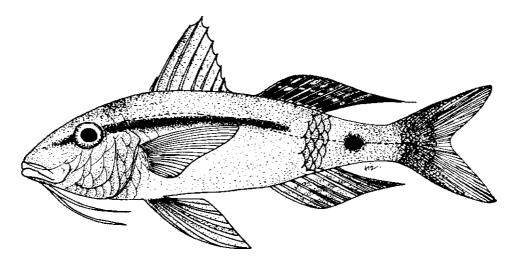
**Habitat and Biology:** Mostly found on shallow sandy bottoms, but reported to a depth of 100 m. Feeds mainly on benthic crustaceans and polychaetes.

**Distribution:** Indo-Pacific.

**Remarks:** *Parupeneus barberinus* like other goatfishes uses its barbels to probe into the bottom in search of food. When prey animals are found it roots into the sand with its snout.

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## Parupeneus macronemus (Lacepède, 1801)



English Name : Longbarbel goatfishFamily : MULLIDAELocal Name : Kandu kalhuoh'Order : PerciformesSize : Max. 32 cmSpecimen : MRS/0068/86

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 8 rays. Anal fin with 1 spine and 6 rays. Pectoral fin with 15 or 16 (usually 16). Body depth 3.3-3.7 in standard length. Body moderately elongate. Chin with two very long slender barbels reaching to pelvic fin base. Two vertical rows of scales between dorsal fins. Last dorsal and anal rays prolonged.

**Colour:** Reddish brown, pale ventrally and posteriorly. A black stripe on upper side and a large black spot on caudal peduncle. Base and rear of second dorsal fin black.

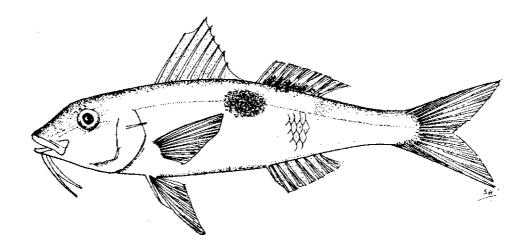
Habitat and Biology: Found in shallow, sandy and weedy bottoms.

**Distribution:** Indo-West Pacific.

**Remarks:** *Parupeneus macronemus* is easily distinguished from other related species by the elongate filamentous last rays of its second dorsal and anal fins, which reach the caudal fin base.

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## Parupeneus pleurostigma (Bennett, 1831)



English Name :Side-spot goatfishFamily :MULLIDAELocal Name :Lah kalhuoh'Order :PerciformesSize :Max. 30 cmSpecimen :MRS/0066/86

**Distinctive Characters:** First dorsal fin with 8 spines, second dorsal fin with 1 spine and 8 rays. Anal fin with 1 spine and 6 rays. Pectoral fin with 16 rays. Body depth 3.5-3.9 in standard length. Body moderately elongate. Barbels reaching about to rear margin of preopercle. 2-3 rows of scales in space between dorsal fins. 8 or 9 vertical scale rows along upper part of caudal peduncle.

**Colour:** Pale yellowish-brown to light red, shading to white or pale pink ventrally. A large round black spot on lateral line below the gap between dorsal fins with a pale area behind it.

Habitat and Biology: Found near coral reefs. Feeds on benthic invertebrates.

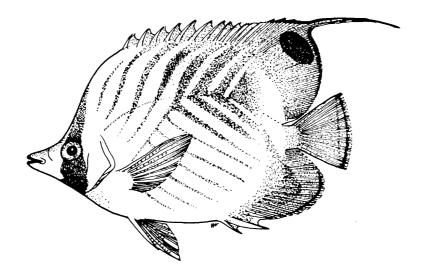
**Distribution:** Indo-West Pacific.

**Remarks:** Parupeneus pleurostigma is a fairly common goatfish in the Maldives. The males of this and other species of goatfishes wriggle their barbels rapidly during courtship.

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### Chaetodon auriga Forsskål, 1775



**English Name:** Threadfin butterflyfish **Family:** CHAETODONTIDAE

Local Name :Naruvaa bibeeOrder :PerciformesSize :Max. 20 cmSpecimen :MRS/0082/86

**Distinctive Characters:** Dorsal fin with 13 spines and 23-25 rays. Anal fin with 3 spines and 19-21 rays. Pectoral fin with 14 or 15 rays. Body depth 1.5-1.8 in standard length. The fourth to sixth soft rays of adults prolonged to a filament.

**Colour:** White, but yellow posteriorly. A large black spot on soft portion of dorsal fin. A prominent black band through eye. Two series of grey slanting lines on body, meeting at right angles.

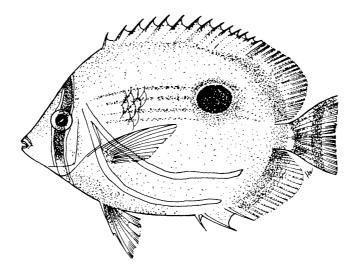
**Habitat and Biology:** Common in shallow protected reefs, also on outer reefs to depths of 30 m. Feeds on algae, polychaete worms and coral polyps.

**Distribution:** Indo-Pacific.

**Remarks:** Chaetodon auriga is one of the common Maldivian butterflyfishes. It is usually seen in pairs, sometimes in the company of Chaetodon falcula.

سُرْخُرُوگُ ۾ ۾

#### Chaetodon bennetti Cuvier, 1831



**English Name:** Bennett's butterflyfish **Family:** CHAETODONTIDAE

Local Name :Faiymini bibeeOrder :PerciformesSize :Max. 19 cmSpecimen :MRS/0151/87

**Distinctive Characters:** Dorsal fin with 14 spines and 16-18 rays. Anal fin with 3 spines and 14-16 rays. Pectoral fin with 14-16 (usually 15) rays. Body depth 1.4-1.8 in standard length.

**Colour:** Bright yellow. Dark eye band with blue-white borders. Large black blotch on side, enclosed by a blue edged ocellus. Two blue-white lines passing down and backwards, one on either side of the pectoral fin, from a point above and beind the eye.

**Habitat and Biology:** Often seen singly or in pairs, usually on outer reefs at depths between 5 to 25 m. Feeds mainly on coral polyps.

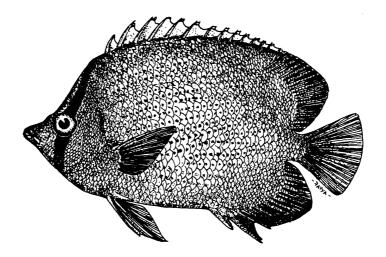
Distribution: Indo-Pacific.

**Remarks:** Chaetodon bennetti is one of the most beautiful of all the butterflyfishes. But being a coralivore it is difficult to maintain in an aquarium.

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#### Chaetodon citrinellus Cuvier, 1831



**English Name:** 

Citron butterflyfish

Family:

**CHAETODONTIDAE** 

Local Name: Size:

Rulhigadha bibee

Max. 12 cm

Order: Perciformes Specimen:

MRS/0202/88

**Distinctive Characters:** Dorsal fin with 14 spines and 20-22 rays. Anal fin with 3 spines and 16 or 17 rays. Pectoral fin with 13 or 14 rays. Body depth 1.7-1.9 in standard length.

Colour: Pale yellow with small spots of variable colour on each scale and a black border on anal fin. A prominent black band through the eyes.

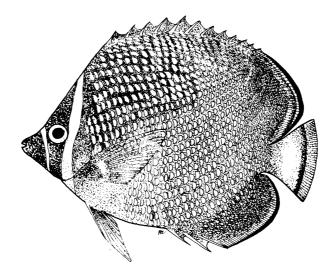
Habitat and Biology: Common in shallow exposed reef flats and seaward reefs where coral growth is sparse. Usually seen in pairs. Feeds on coral polyps, benthic invertebrates and algae.

**Distribution:** Indo-Pacific.

**Remarks:** Chaetodon citrinellus is an aggressive species which frequently erects the dorsal spines and faces downwards in a defence position when approached by other fishes or divers.

تریز کائز ص

לה מהלים הל ללפיצה הל הסתה לצ לייים בה לפרת עהלים שני בל לייים בה לל החומים לה החומים להחומים לה החומים להחומים לה החומים להחומים לה החומים להחומים לה החומים להחומים לה החומים להחומים לה החומים לה وُحْمَالُورُ وَقُدِرُ مِنْ فَيُعَلُّ فَمِوْمُونُ شَرَقُ مُرْسِرَيْنُ وَكَ عِرْدُونُ خُودُونُ فَكُمَاسِوَمِهُ رَجْمَاعُ مِعْدُ وْرُوْرُورُورُ وَرُورُورُ وَرُرُورُ وَرُدُورُ وَرُدُورُ وَيَرُرُ فَيْكُرُ فَيْمِ وْرُوَدُورُ وَرِدُو وَرُورُ وَدِرُورُ وَمِنْ وَمُرْدُ فَيْكُرُ فَيْمِ وْرُورُورُورُ وَدِرِ لَا رِعْدِ لِيَوْرُورُو وَرُنَاوُ وَوَا مُرْوُ مُنْفُومِ 12 سُورُومِ عُمُرُونَ وَوَرَدُ مِنْ فُلِ رَدُّا مُرَوْدُ عُرِيْدُانَعُ وَلَهِ مُرْوَدُ وَرَيْ وَيُرُونُ مَوْ وَمُرَكُ لِأَمْ لِكُونِهِ وَمَرْثُ وِسُولُ " ثَرُو وَيُرْجِع " بِدِلاً سَرَثُو وَرُوطُ سِمْتُو. وَرَقُ فَعَرْسُروهِ مُعْمِرِهُم 14 رَغُرْسُ فَهُمُ 20 مِيْدِ 22 يُدُ فَرُوْدُةُ مِعْ فَرْسُ وَعُرْسُ وَعُرْدُوْ. صُرِهُوْ مُرْفِرُ كُوْمِ مَرِيْدً 3 رَفِينَا فَيْهُمْ 16 أَنْهُمُ أَلَا كُوْنَا مِرْفَدُوْ. وَرُوْ بَالْرُوْمُ وَلَا يَا مُوْمَا 14 وَيُعْرِرْ عُرُدُو وَرَوْ عُورُمُ وَلَا يُرِيرُوْ عُورُمُو وَرَوْ وَمُعْرَفُومُ مُرَاقًا صَدِيحَة عُروموعُكُم رْحَدُق وَرْيُ صَرِيْمُ وَمُوْمِنْ مُعْمِرِهُ وَمِعْدِيرِ رَبْرُونِ عَوْدُورُونُونَ وَرُورُرُ عَوْدُورُونَ وُعَدُ وَعِيرُ عِهِمُ رُحَدُهُ وَرُوْ عُتُرَمَٰ وَقُوْ وَرُسُورٍ وَتَرَعُونُو مُؤِورُ رُوْ نُورُونُ سَهُدُ · 52 762 5 4453



**English Name:** Collared butterflyfish **Family:** CHAETODONTIDAE

Local Name :Kalaru bibeeOrder :PerciformesSize :Max. 16 cmSpecimen :MRS/0077/86

**Distinctive Characters:** Dorsal fin with 12 spines and 25-28 rays. Anal fin with 3 spines and 20-22 rays. Pectoral fin with 14-15 rays. Body depth 1.4 in standard length.

**Colour:** Body essentially dark brown. Broad white band across back of head, with finer white markings on snout. Rest of face dark brown/ black. Anterior portion of caudal fin red.

**Habitat and Biology:** Usually seen in pairs or in small groups on ourter reefs slopes at depths of 4-15 m. Feeds mainly on coral polyps.

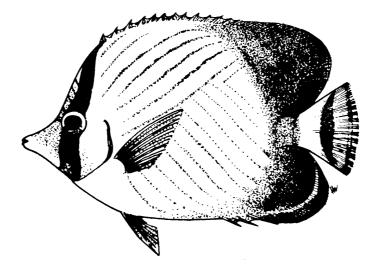
**Distribution:** Oman to the Philippines.

**Remarks:** Chaetodon collare is a very sedate mover, and with its rather fine colouration is a very noble looking fish. A popular aquarium fish.

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## Chaetodon decussatus Cuvier, 1831



English Name: Indian vagabond butterflyfish Family: CHAETODONTIDAE

Local Name :Hindhukokaa bibeeOrder :PerciformesSize :Max. 20 cmSpecimen :MRS/0088/86

**Distinctive Characters:** Dorsal fin with 13 spines and 24-25 rays. Anal fin with 3 spines and 20-21 rays. Pectoral fin with 14-15 rays. Body depth 1.4 in standard length.

**Colour:** Background colour white. Broad black eye band. Posterior part of body mostly black, but with yellow markings on tail and anal fin. Two perpendicular series of grey lines on side.

**Habitat and Biology:** Found in many habitats ranging from rich coral reefs to rubble and rocky areas at depths of up to 20 m. Feeds mainly on algae and coral polyps.

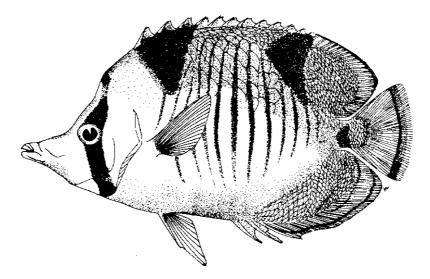
**Distribution:** Maldives to Western Indonesia.

**Remarks:** Chaetodon decussatus is not especially common in Maldives. It is very similar in appearance to *C. vagabundus* and two have frequently been confused. This confusion has been compounded by the fact that in the Red Sea and Gulf of Aden there is a sub-species of *C. vagabundus* (known as *C. vagabundus pictus*) which has a much broader posterior black band than usual.

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## Chaetodon falcula Bloch, 1793



**English Name:** Saddleback butterflyfish **Family:** CHAETODONTIDAE

Local Name :Asdhaanu bibeeOrder :PerciformesSize :Max. 20 cmSpecimen :MRS/0017/86

**Distinctive Characters:** Dorsal fin with 11 spines and 23-26 rays. Anal fin with 3 spines and 20-21 rays. Pectoral fin with 15 rays. Body depth 1.8 in standard length. Snout longer than eye.

**Colour:** White anteriorly and ventrally. Yellow dorsally and posteriorly. Black eye band, two black dorsal triangular saddles and a black bar on caudal peduncle. Verticle grey lines on sides.

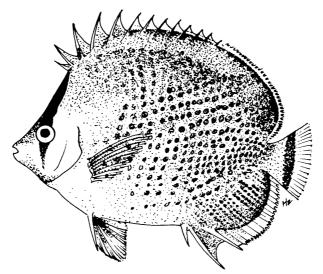
**Habitat and Biology:** Generally seen in pairs or in small aggregations on coral reefs at depths between 3-15 m. Easy to approach by snorkelers.

Distribution: Indian Ocean.

**Remarks:** Chaetodon falcula is closely related to C. ulietensis Cuvier of the Pacific (in which the black dorsal bars are much more diffused). A popular aquarium fish.

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## Chaetodon guttatissimus Bennett, 1832



English Name: Spotted butterflyfish Family: CHAETODONTIDAE

Local Name :Lahjehi bibeeOrder :PerciformesSize :Max. 12 cmSpecimen :MRS/0164/87

**Distinctive Characters:** Dorsal fin with 13 spines and 21-23 rays. Anal fin with 3 spines and 16-18 rays. Pectoral fin with 14 rays. Body depth 1.5-1.6 in standard length.

**Colour:** Background colour olive. Black eye stripe and band through tail. Dusky band around caudal peduncle. Many small spots covering body and dorsal and anal fins arranged roughly in lines. Yellow margins to dorsal and anal fins.

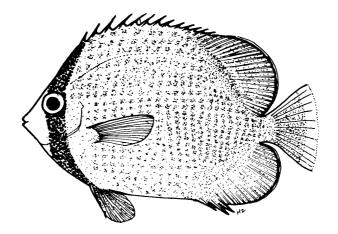
**Habitat and Biology:** Inhabits, reef edge and upper reef slopes. Occurs singly, in pairs, or in small aggregations. Feeds mainly on polychaete worms, algae and coral polyps.

**Distribution:** Indian Ocean.

**Remarks:** Chaetodon guttatissimus might be confused with C. citrinellus, but the later is a paler, more yellow coloured species, with finer dotting and a characteristic black edged anal fin. C. guttatissimus is closely related to C. punctatofasciatus Cuvier and C. pelewensis Kner of the Pacific.

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## Chaetodon kleinii Bloch, 1790



English Name: Klein's butterflyfish Family: CHAETODONTIDAE

Local Name :Alanaasi bibeeOrder :PerciformesSize :Max. 12 cmSpecimen :MRS/0083/86

**Distinctive Characters:** Dorsal fin with 13 spines and 20-23 rays. Anal fin with 3 spines and 18-19 rays. Pectoral fin with 14 rays. Body depth 1.4-1.7 in standard length.

**Colour:** Orange yellow with a whitish spot on each scale and two brown bars on body preceded by pale zones. Upper part of black eye bar blue.

**Habitat and Biology:** Inhabits, coral and rocky reefs to depths of 60 m. Occurs singly, in pairs, or in groups. Feeds on soft corals and zooplankton.

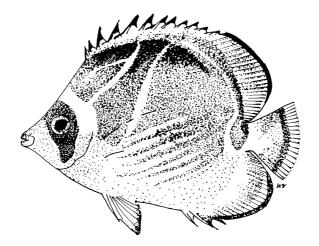
**Distribution:** Indo-Pacific.

**Remarks:** One of a number of small spotted butterflyfish, *Chaetodon kleinii* may be recognised by its dull orange colouration. It is rather common in Maldives.

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## Chaetodon lunula (Lacepède, 1802)



English Name: Klein's butterflyfish Family: CHAETODONTIDAE

Local Name :Alanaasi bibeeOrder :PerciformesSize :Max. 12 cmSpecimen :MRS/0085/86

**Distinctive Characters:** Dorsal fin with 11-13 spines and 22-25 rays. Anal fin with 3 spines and 17-19 rays. Pectoral fin with 15-16 rays. Body depth 1.4-1.8 in standard length. Snout subequal to eye.

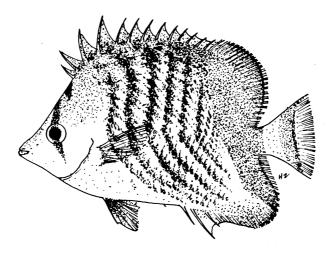
**Colour:** Background colour mustard yellow. Black eye bar, behind which is a broad crescent white band. A broad diagonal yellow edged black band from behind head to the dorsal fin base. A dark spot at base of tail extended upwards along base of dorsal fin.

**Habitat and Biology:** Often seen in pairs or small groups from shallow reef flats to at least 25 m. Feeds on a wide variety of invertebrates, algae and coral polyps.

**Distribution:** Indo-Pacific.

**Remarks:** Chaetodon lunula is fairly common in the Maldives, but is rather patchily distributed. A popular aquarium fish.

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English Name: Madagascar butterflyfish Family: CHAETODONTIDAE

Local Name :Madagaskara bibeeOrder :PerciformesSize :Max. 14 cmSpecimen :MRS/0153/87

**Distinctive Characters:** Dorsal fin with 13 spines and 20-21 rays. Anal fin with 3 spines and 16-17 rays. Pectoral fin with 15-16 rays. Body depth 1.4-1.8 in standard length. Snout subequal to eye. In large adults, the anal fin is distinctly angular.

**Colour:** Body pearly white. Black eye bar and a separate black spot on nape. Posterior area of yellow, and yellow patch on caudal fin.

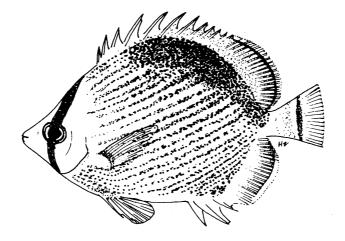
**Habitat and Biology:** Omnivorous species found at depths of 10-40 m on the reef.

Distribution: Indian Ocean.

**Remarks:** Chaetodon madagaskariensis is very closely related to an almost identical species. C. mertensii Cuvier, of the Pacific Ocean. The former differs only by the detached black spot on nape. A popular aquarium fish.

## ر در در میرور کری ہے در در کا کرمی ہے

#### Chaetodon melannotus Bloch and Schneider, 1801



English Name: Black-backed butterflyfish Family: CHAETODONTIDAE

Local Name :Kalhali bibeeOrder :PerciformesSize :Max. 15 cmSpecimen :MRS/0079/86

**Distinctive Characters:** Dorsal fin with 12 spines and 18-21 rays. Anal fin with 3 spines and 16-18 rays. Pectoral fin with 14-15 rays. Body depth 1.6-1.8 in standard length.

**Colour:** Overall white with bright yellow fins. Numerous yellow oblique black lines on sides. Upper back blackish. A black blotch above anal spines. A yellow edged, black bar through eyes.

**Habitat and Biology:** Usually seen in rich coral areas to 20 m depth. It may be seen singly, in pairs or in small groups. Feeds mainly on coral polyps.

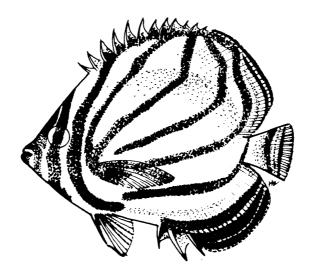
Distribution: Indo-Pacific.

**Remarks:** The exquisitely patterned *Chaetodon melannotus* is a common species in the Maldives. This species, although feeds on coral polyp, is suited for aquarium life and can be maintained.

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## Chaetodon meyeri Bloch and Schneider, 1801



**English Name:** Meyer's butterflyfish **Family:** CHAETODONTIDAE

Local Name :Oirongu bibeeOrder :PerciformesSize :Max. 20 cmSpecimen :MRS/0095/87

**Distinctive Characters:** Dorsal fin with 12 spines and 23-24 rays. Anal fin with 3 spines and 18-20 rays. Pectoral fin with 15-16 rays. Body depth 1.3-1.6 in standard length.

Colour: Ground colour pale grey edged with yellow. Distinctive pattern of black curved lines on body.

**Habitat and Biology:** Usually seen in pairs; found in rich coral areas at depths between 3-25 m. Juveniles remain near the shelter of branching corals. Feeds on coral polyps.

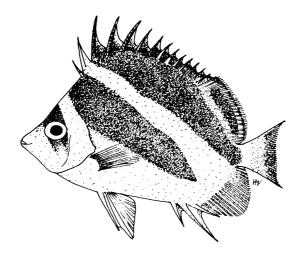
Distribution: Indo-Pacific.

**Remarks:** With its distinctive pattern *Chaetodon meyeri* cannot be mistaken for any other Maldivian butterflyfish. However, *C. ornatissimus* which is very rare in Maldives, has a similar pattern (but gold instead of black bands). Being a coralivore it is difficult to maintain in an aquarium.

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#### Chaetodon mitratus Günther, 1860



English Name: Indian butterflyfish Family: CHAETODONTIDAE

Local Name :Kirulhiya bibeeOrder :PerciformesSize :Max. 14 cmSpecimen :MRS/0145/87

**Distinctive Characters:** Dorsal fin with 13 spines and 18-20 rays. Anal fin with 3 spines and 16 rays. Pectoral fin with 15 rays. Body depth 1.6 in standard length. Triangular shaped with third or fourth dorsal spine longest.

Colour: Yellow with two broad diagonal black bands, and a black eye bar.

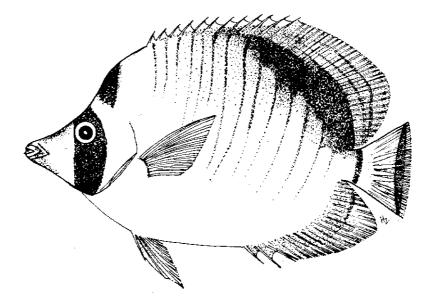
**Habitat and Biology:** Usually found at depths greater than 30 m.

Distribution: Indian Ocean.

**Remarks:** Chaetodon mitratus is one of the most beautiful of all the butterflyfishes. Although it is probably moderately common in Maldives it is only seen on very rare occasions because of its deep dwelling habit. The best places for divers to see this species are dropoffs on outer reef slopes.

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**English Name:** Spot-nape butterflyfish **Family:** CHAETODONTIDAE

Local Name :Thalakalhu bibeeOrder :PerciformesSize :Max. 25 cmSpecimen :MRS/0084/86

**Distinctive Characters:** Dorsal fin with 12 spines and 22-24 rays. Anal fin with 3 spines and 18-20 rays. Pectoral fin with 14-16 rays. Body depth 1.7-2.0 in standard length.

**Colour:** Ground colour white, yellow posteriorly. Black spot on nape not connected to the black eye bar. Broad black crescent extends from base of posterior dorsal spines to caudal peduncle, barely continuing onto anal fin. Thin vertical black lines on sides.

Habitat and Biology: Usually seen in pairs. Feeds on coral polyps and sea anemones.

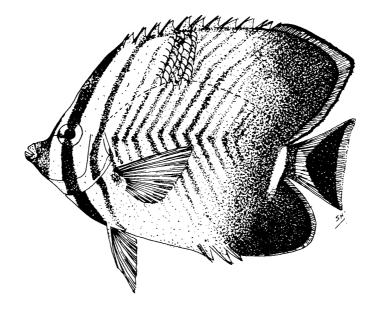
**Distribution:** Maldives to New Guinea.

**Remarks:** Chaetodon oxycephalus is very similar to C. lineolatus, but that species has an unbroken eye band. Neither of these two species are ideal for domestic aquaria because of the large sizes that they reach.

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#### Chaetodon triangulum Cuvier, 1831



English Name: Triangular butterflyfish Family: CHAETODONTIDAE

Local Name :Thineskan bibeeOrder :PerciformesSize :Max. 15 cmSpecimen :MRS/0076/86

**Distinctive Characters:** Dorsal fin with 11 spines and 23-26 rays. Anal fin with 3 spines and 20-21 rays. Pectoral fin with 14 rays. Body depth 1.1 in standard length. Dorsal and anal fins elevated posteriorly. Snout small and pointed.

**Colour:** Ground colour light brown. Dark chevron markings over most of body. Snout-eye band and opercular bar reddish. Caudal fin with broad black triangular or diamond shaped patch bordered with yellow.

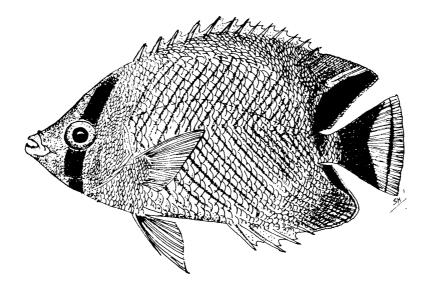
**Habitat and Biology:** Usually found in shallow waters at depths of 2 to 12 m in the close association with branching corals. Feeds on coral polyps.

**Distribution:** Maldives to Western Indonesia.

**Remarks:** Chaetodon triangulum is sometimes classified in the genus Gonochaetodon. Differs from C. baronessa Cuvier from the Western Pacific only in caudal colouration. Being a coralivore this species is not easy to maintain in an aquarium.

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#### Chaetodon trifascialis Quoy & Gaimard, 1824



**English Name:** Chevron butterflyfish **Family:** CHAETODONTIDAE

Local Name :Haluvi bibeeOrder :PerciformesSize :Max. 17 cmSpecimen :MRS/0043/86

**Distinctive Characters:** Dorsal fin with 12-14 spines and 14-16 rays. Anal fin with 4-5 spines and 13-15 rays. Pectoral fin with 15 rays. Body depth 1.7-2.2 in standard length. Body elongate. The dorsal and anal fins angular.

**Colour:** Overall white with narrow chevron markings on sides. Basal two-thirds of caudal fin blackish in adults; yellow in juveniles. A black bar through eyes.

**Habitat and Biology:** Usually found on reef edges and upper slopes at depths of 2-20 m. Aggressively defends a small territory of table coral on which it feeds.

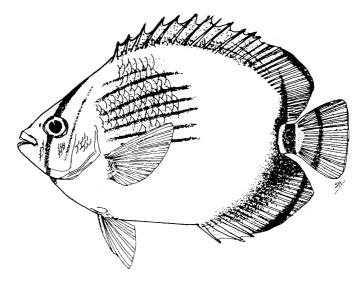
**Distribution:** Indo-Pacfic.

**Remarks:** Chaetodon trifascialis is an obligate coralivore, and also is not recommended as an aquarium fish. This species was previously recorded as *Megaprotodon strigangulus* (Gmelin) in the Catalogue of Fishes of the Maldives, Vol. 1, page 48.

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#### Chaetodon trifasciatus Park, 1797



**English Name:** Oval butterflyfish **Family:** CHAETODONTIDAE

Local Name :Bisburu bibeeOrder :PerciformesSize :Max. 14 cmSpecimen :MRS/0039/86

**Distinctive Characters:** Dorsal fin with 13-14 spines and 20-22 rays. Anal fin with 3 spines and 18-20 rays. Pectoral fin with 13-15 (usually 14) rays. Body depth 1.5-1.8 in standard length. Body with a characteristic oval shape, the dorsal and anal fins low.

**Colour:** Bluish brown above, paler below. About 15 bluish stripes on sides. A black band on head running through eye. Another black band across mid caudal fin bordered by 2 yellow stripes. Snout blackish. Pectoral and pelvic fins pale yellow.

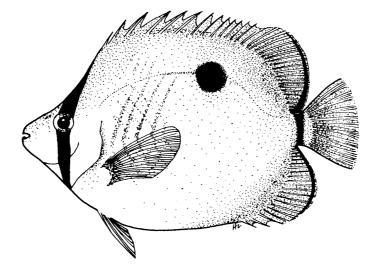
**Habitat and Biology:** Found in shallow well-protected coral reef areas to depths of 20 m. Generally seen in pairs. Feeds exclusively on coral polyps.

**Distribution:** Indo-Pacific.

**Remarks:** Chaetodon trifasciatus is difficult to maintain in aquariums, as it feeds exclusively on coral polyps. The Pacific population *C. trifasciatus* has sometimes been recognised as a distinct subspecies (*C. trifasciatus lunulatus* Quoy & Gaimard, 1825).

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#### Chaetodon unimaculatus Bloch, 1787



English Name: Teardrop butterflyfish Family: CHAETODONTIDAE

Local Name :Dhon bibeeOrder :PerciformesSize :Max. 20 cmSpecimen :MRS/0124/87

**Distinctive Characters:** Dorsal fin with 13 spines and 21-23 rays. Anal fin with 3 spines and 18-20 rays. Pectoral fin with 14-15 rays. Body depth 1.4-1.6 in standard length. Snout robust. Jaws strong.

**Colour:** Bright yellow. Black eye stripe, dorsal spot (which may be round or shaped like an inverted teardrop) and striped along posterior margin across caudal peduncle. Tail pale.

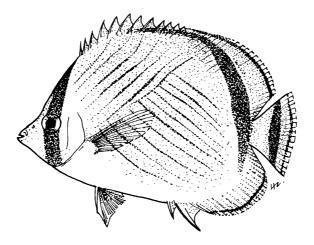
**Habitat and Biology:** Common in outer reefs to depths of 20 m. Usually seen in pairs. Feeds on coral polyps, soft corals, sponges, polychaetes and algae.

**Distribution:** Indo-Pacific.

**Remarks:** The Pacific form of *Chaetodon unimaculatus* differs from the Indian Ocean form by having broader eye stripes which join on the chest, and the sides are much paler yellow in colour.

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### Chaetodon vagabundus Linnaeus, 1758



English Name: Vagabond butterflyfish Family: CHAETODONTIDAE

Local Name :Kokaa bibeeOrder :PerciformesSize :Max. 18 cmSpecimen :MRS/0081/86

**Distinctive Characters:** Dorsal fin with 13 spines and 23-26 rays. Anal fin with 3 spines and 19-22 rays. Pectoral fin with 15-16 rays. Body depth 1.5 in standard length.

**Colour:** Background colour white, and yellow posteriorly. Broad black band through eye, around posterior part of body and through the caudal fin. Two perpendicular series of thin grey lines on sides.

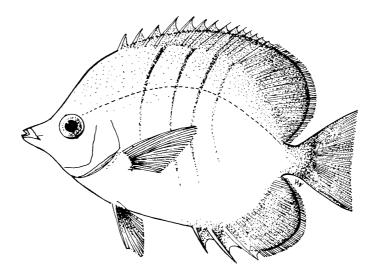
**Habitat and Biology:** Seen solitary, in pairs or in aggregations in a variety of habitats but mainly rich coral reefs. Can be easily approached. Feeds on coral polyps and algae.

**Distribution:** Indo-West Pacific.

**Remarks:** Chaetodon vagabundus, while no means rare is not especially common in Maldives. This is one of the easiest of the butterflyfishes to keep in aquarium.

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#### Chaetodon xanthocephalus Bennett, 1832



English Name: Yellow head butterflyfish Family: CHAETODONTIDAE

Local Name :Boareendhoo bibeeOrder :PerciformesSize :Max. 20 cmSpecimen :MRS/0086/86

**Distinctive Characters:** Dorsal fin with 14 spines and 23-25 rays. Anal fin with 3 spines and 21-23 rays. Pectoral fin with 15 rays. Body depth 1.6 in standard length. Snout plus upper jaw longer than eye. Dorsal head profile distinctly concave.

**Colour:** Body white-grey with about 5 angled lines. Snout, lower head, pelvic fins, anal and dorsal fins yellow.

**Habitat and Biology:** Omnivorous species. Usually found solitary or in pairs along the reef slope at depths of 5-25 m.

Distribution: Indian Ocean.

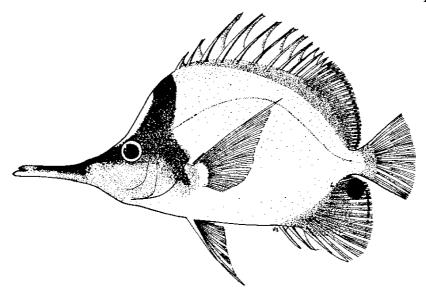
**Remarks:** Chaetodon xanthocephalus is not uncommon in Maldivian reefs. Once acclimated, it does well in aquariums.

ר) נמית ית בק נם כם קו

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#### Forcipiger flavissimus Jordan and McGregor, 1898

PLATE 6d



English Name: Forceps fish Family: CHAETODONTIDAE

Local Name :Thun bibeeOrder :PerciformesSize :Max. 19 cmSpecimen :MRS/0073/86

**Distinctive Characters:** Dorsal fin with 12 spines and 21-25 rays. Anal fin with 3 spines and 17-18 rays. Pectoral fin with 14-16 rays. Body depth 2.1-2.2 in standard length. Long snout (usually more than 3.2 times in standard length). Mouth with a distinct gape.

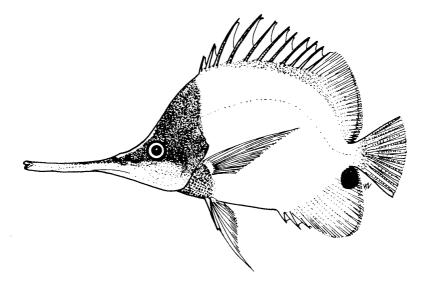
**Colour:** Overall yellow; upper half of head and nape black; white below. A black spot on anal fin just below base of caudal fin.

**Habitat and Biology:** Commonly found in outer reef slopes at depths up to 30 m. Occurs singly or in small groups. Feeds on hydroids, small crustaceans, polychaetes and other worms.

Distribution: Indo-Pacific and Eastern Pacific.

**Remarks:** Forcipiger flavissimus is closely related to F. longirostris (next page) and these species are sometimes seen together. A popular aquarium fish.

د مرص ہے مرکس ہے ہے



English Name: Long-nosed butterflyfish Family: CHAETODONTIDAE

Local Name :Thundhigu bibeeOrder :PerciformesSize :Max. 22 cmSpecimen :MRS/0116/86

**Distinctive Characters:** Dorsal fin with 11 spines and 24-28 rays. Anal fin with 3 spines and 17-20 rays. Pectoral fin with 14 or 15 rays. Body depth 1.9-2.5 in standard length. Snout extremely long; even longer than that of *F. flavissimus*. Mouth with a little gape.

**Colour:** Bright yellow. Black spot on anal fin below tail. Head black above and white below. Black dots on white area in front of pectoral fin. This species also has a dark brown colour phase.

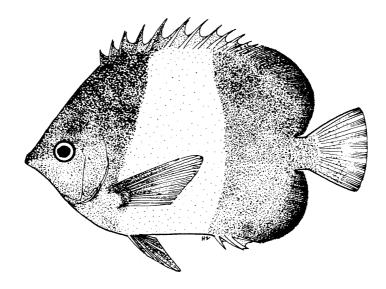
**Habitat and Biology:** Commonly found in outer reef slopes to depths of 30 m. Occurs singly or in small groups. Feeds on hydroids, small crustaceans, polychaetes and other worms.

Distribution: Indo-Pacific.

**Remarks:** Unless dead specimens are available, it is rather difficult to tell *Forcipiger longirostris* from the related *F. flavissimus*. There is, however, one fairly simple field method. In *F. longirostris* the distance from the tip of the snout to the back of black mask is equal to or longer than the length of yellow part of the body whereas in *F. flavissimus* it is noticeably shorter.

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#### Hemitaurichthys zoster (Bennett, 1831)



English Name: Black pyramid butterflyfish Family: CHAETODONTIDAE

Local Name :Oimathi bibeeOrder :PerciformesSize :Max. 18 cmSpecimen :MRS/0087/86

**Distinctive Characters:** Dorsal fin with 12 spines and 24-26 rays. Anal fin with 3 spines and 20-21 rays. Pectoral fin with 17 rays. Body depth 1.5 in standard length.

**Colour:** Dark brown with broad white area in middle of the body. Dorsal spines over white area are yellow. Caudal fin mostly white.

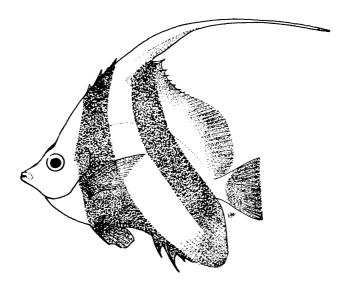
**Habitat and Biology:** Commonly found at depths 1-35 m. Usually seen in large schools. Feeds on zooplankton well above the corals, to which it retreats at the approach of danger.

Distribution: Western Indian Ocean.

**Remarks:** *Hemitaurichthys zoster* is very common in the Maldives. It is unusual for a butterflyfish in that it feeds mainly on plankton, and presumably for this reason has adopted a schooling mode of life unlike most of the butterflyfishes.

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#### Heniochus acuminatus (Linnaeus, 1758)



English Name: Long-fin bannerfish Family: CHAETODONTIDAE

Local Name :Dhidhamas bibeeOrder :PerciformesSize :Max. 23 cmSpecimen :MRS/0094/87

**Distinctive Characters:** Dorsal fin with 11 spines and 24-27 rays. Anal fin with 3 spines and 17-19 rays. Pectoral fin with 15-18 rays. Body depth 1.2-1.4 in standard length. The fourth dorsal spine extremely elongate. Large adults with a short stout spine in front of each eye.

Colour: White with two diagonal stripes. Dorsal, caudal and pectoral fins yellow. Anal spines black.

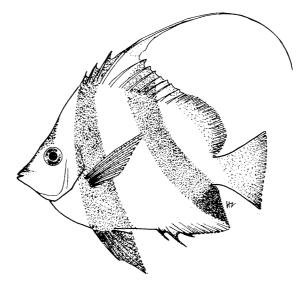
**Habitat and Biology:** Usually found solitary or in pairs near the bottom. Feeds on zooplankton and benthic invertebrates.

**Distribution:** Indo-West Pacific.

**Remarks:** *Heniochus acuminatus* is very difficult to differentiate from *H. diphreutes* (next page). Dead specimens can be identified by counting the dorsal spines (11 in *H. acuminatus*, 12 in *H. diphreutes*). Living specimens might be distinguished by snout shape, and fin patterns or habits (see overleaf).

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### Heniochus diphreutes Jordan, 1903



English Name: Schooling bannerfish Family: CHAETODONTIDAE

Local Name :Dhidha bibeeOrder :PerciformesSize :Max. 21 cmSpecimen :MRS/0172/87

**Distinctive Characters:** Dorsal fin with 12 spines and 23-25 rays. Anal fin with 3 spines and 17-19 rays. Pectoral fin with 16-18 rays. Body depth 1.2-1.5 in standard length. Snout shorter than eye diameter. The fourth dorsal spine prolonged. No spines in front of eyes.

**Colour:** Colour almost identical to *H. acuminatus* (previous page) but the second dark band is placed further backward on the anal fin. White with two broad diagonal stripes. Dorsal and caudal fins yellow. Pectoral fins pale. In juveniles anal spines whitish. In larger adults only distal ends dusky.

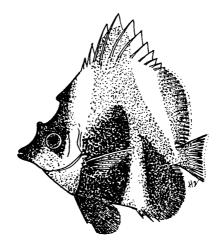
**Habitat and Biology:** A schooling species that usually swims well off the bottom. Feeds mainly on zooplankton. Occasionally observed cleaning other fishes.

**Distribution:** Indo-West Pacific.

**Remarks:** *Heniochus diphreutes* is one of the most common Maldivian butterflyfishes. It can easily be confused with *H. acuminatus* (previous page), which normally occurs in pairs on the reef.

ترفرح ح

#### Heniochus monoceros Cuvier, 1831



**English Name:** Masked bannerfish **Family:** CHAETODONTIDAE

Local Name :Maasku bibeeOrder :PerciformesSize :Max. 25 cmSpecimen :MRS/P0150/87

**Distinctive Characters:** Dorsal fin with 12 spines and 24-27 rays. Anal fin with 3 spines and 17-19 rays. Pectoral fin with 16-18 rays. Body depth 1.5-1.7 in standard length. The fourth dorsal spine prolonged as a tapering white filament. Adults with a prominent hump on nape and a short "horn" in front of each eye.

**Colour:** Three dark brown bars. Central bar narrows at the top to include only fifth to seventh dorsal fin spines. Areas between bars white. Posterior part yellow.

**Habitat and Biology:** Adults usually found in pairs that shelter in coral crevices, in outer reef slopes. Feed on bottom living animals.

**Distribution:** Indo-Pacific.

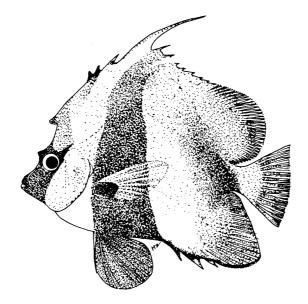
**Remarks:** *Heniochus monoceros* is a fairly common species in the Maldives. It is seen hovering side by side below table corals. However, this is one of the most timid of all bannerfish.

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### Heniochus pleurotaenia Ahl, 1923



English Name: Indian bannerfish Family: CHAETODONTIDAE

Local Name :Hindhu dhidha masOrder :PerciformesSize :Max. 19 cmSpecimen :MRS/0152/87

**Distinctive Characters:** Dorsal fin with 11 spines and 23-25 rays. Anal fin with 3 spines and 17-18 rays. Pectoral fin with 15 rays. Body depth 1.5 in standard length. Bony projections on nape and above eyes. The fourth dorsal spine only slightly longer than fifth.

**Colour:** Overall dark brown to black with a narrow white band from upper nape across gill cover. Second white band in the middle. Third oblique white band on dorsal part of body.

**Habitat and Biology:** Usually occurs along the reef slope in pairs or small groups under overhangs and near the entrances of dark crevices at depths between 2 and 20 m.

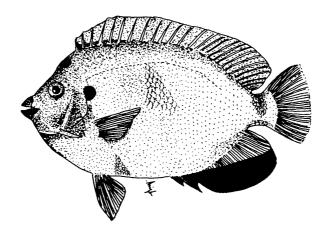
Distribution: Maldives to Western Indonesia.

**Remarks:** *Heniochus pleurotaenia* is closely related to *H. varius* (Cuvier) of the Pacific. But the two can easily be separated by colour pattern. *H. pleurotaenia* has an extra white band that originates at the base of the anal spines and extends to the middle of upper sides.

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פרצה לפתו לב שלה בתול בתיעל

وُلْمَارِدَوْمُوْدُ. وَزَوْ مُوْرِيُونُورُ وَقِوْدُ وَجِوْرُمُونُو تَوَكُّرُ لِيَكُو يُوْرِدُونُورُ يُودُونُونُ الْوَرْدُورُ



English Name: Threespot angelfish Family: POMACANTHIDAE

Local Name :Dhon kokaamasOrder :PerciformesSize :Max. 21 cmSpecimen :MRS/0092/87

**Distinctive Characters:** Dorsal fin with 14 spines and 16-18 rays. Anal fin with 3 spines and 17-19 rays. Pectoral fin with 17 rays. Body depth 1.6-1.8 in standard length.

**Colour:** Bright yellow; blue lips; black spot on nape above eye. Broad black margin to anal fin. Young with a black spot at base of soft dorsal fin and a dark bar through eye.

**Habitat and Biology:** Frequently seen on outer reef edge and reef slopes at depths of 15 m. Feeds mainly on sponges and sea squirts.

Distribution: Indo-Pacific.

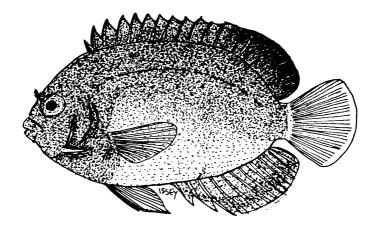
**Remarks:** The bright yellow *Apolemichthys trimaculatus* is fairly common in Maldivian reefs. It is a popular aquarium fish. The similar, but much rarer, *A. armitagei* is dull yellow and lacks the spot behind the eye. Instead it has a black posterior tip on the dorsal fin.

#### نز شر سرگرک میر مرسر سرگرک

وَرُوْ فَتُرَرِّدُونِ ثَمْمِ فَدِوْدٍ 14 رَثَرَنَدُهُونَ 16 لَدُدٍ 18 لِدُّ وَوَثُوَ دَثَرَوَنَدُ وَفَارَرِثَوَلَدُوْ عَهِ فَرَرُورُكُونُ ثَمْرِهَ دِوْدٍ 3 رَثَمَنَدُهُ 17 لَدُدٍ 19 لَدُّ وَوَقُوفُ دَثَرَنَا ثَا وَقَارَرُمُنُوْ مَنْهُ وَوَقَ مِهِ فَدِوْدُ فِي ثَرْمَنَ فَعَلَا رَثَمَنَهُ وَرُوْ مُورُنِ فَرْمُوْمِ فَالْمَوْمِ وَرُوْ مِرْم وَهُ مِوَالِهِ مَنْهُ وَدُورُورُكُونُو وَرُورُدُونَ وَرُوْ مُورُنِ الْأَمْرِ الْأَنْوَدِ وَرُوْ عَرَامُونَ الْمُ

َ \* ﴿ وَوَرَّدُ بِهِ وَيَ وَيُسْتِهِ وَهُ مُرَكَّدُ وَمُ مُرَدُ اللَّهِ وَمُرْوَدٍ وَرُوَدُ وَرُوَدُ وَرُودُ وَمُودُومُ مُودُومُ وَمُرَدُومُ وَمُرَدُومُ وَمُرَدُومُ وَمُرَدُومُ وَمُرَدُومُ وَمُرَدُومُ وَمُرَدُومُ وَمُرْدُومُ وَمُرْدُونُ وَمُرْدُومُ وَمُرْدُومُ وَمُرْدُونُ وَمُرْدُومُ وَمُومُ وَمُومُومُ وَمُومُ وَمُومُ وَمُومُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ وَمُومُ ومُومُومُ ومُومُومُومُ ومُومُومُ ومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُ ومُومُومُ ومُومُومُ ومُومُ ومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُ ومُومُومُ ومُومُومُ ومُومُ ومُومُ ومُومُ ومُومُ ومُومُ ومُومُ ومُومُ ومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُومُ ومُومُومُ ومُومُ ومُومُ ومُومُومُ ومُومُومُ ومُومُومُ ومُ

#### Centropyge flavicauda Fraser-Brunner, 1933



English Name: White-tail angelfish Family: POMACANTHIDAE

Local Name :Nigoo hudhu kokaamasOrder :PerciformesSize :Max. 7 cmSpecimen :MRS/0336/89

**Distinctive Characters:** Dorsal fin with 14 spines and 15 rays. Anal fin with 3 spines and 17 rays. Scales on longitudinal series from upper edge of gill opening to caudal fin base 40-45.

Colour: Body dark. Head orangish. Caudal fin white or yellow.

**Habitat and Biology:** Usually seen on rubble bottoms in 20-50 m.

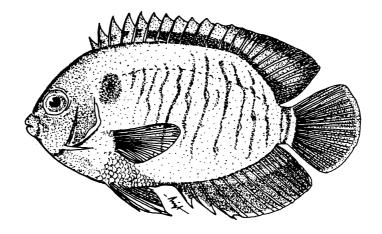
**Distribution:** Indo-Pacific.

**Remarks:** Centropyge flavicauda is one of the smallest of the angelfishes. It is not seen very often in Maldives. It is closely related to and perhaps not distinct from C. fisheri (Synder, 1904) from Hawaii.

#### ת 2005 אנו*ויין ס* ת 2012 עעל איי

وَرَدُ وَمُرْمَارِوَمِ ثَمْرَمُوهُ لِهِ الْمُرْمَارُهُوْ الْحَارِرَمُرُوهُ الْمُرْمَرُونُ مُوهُوَ وَالْمَارِمُرُونُ الْمُرْمَوَهُ الْمُرْمَارُهُونُ الْمُرْمُونُ اللّهُ الللّهُ اللّهُ اللّهُ اللّهُ اللّهُ الللّهُ اللّهُ الللّهُ

#### Centropyge multispinis (Playfair and Günther, 1867)



English Name: Many-spined angelfish Family: POMACANTHIDAE

Local Name :Kashi kokaamasOrder :PerciformesSize :Max. 12 cmSpecimen :MRS/0154/87

**Distinctive Characters:** Dorsal fin with 14 spines and 15-17 rays. Anal fin with 3 spines and 16-17 rays. Pectoral fin rays 17. Body depth 1.6-2.0 in standard length. Preorbital edge with small, subequal spines. Front of snout with a U-shaped notch over upper jaw.

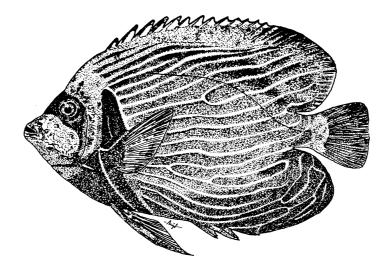
**Colour:** Dark brown, almost black. Black blotch just behind upper end of gill opening. Lips, opercular spine and edges of fins brilliant, neon blue.

**Habitat and Biology:** Usually seen on reef edges and slopes. A shy omnivorous species feeding on algae and associated invertebrates.

Distribution: Indian Ocean.

**Remarks:** *Centropyge multispinis* is a very common fish in Maldivian reefs, but its dark colouration and retiring habits mean that it is easily overlooked.

رسر میراژکستو سر



English Name: Emperor Family: POMACANTHIDAE

Local Name :Ras kokaamasOrder :PerciformesSize :Max. 12 cmSpecimen :MRS/0154/87

**Distinctive Characters:** Dorsal fin with 13-14 spines and 18-21 rays. Anal fin with 3 spines and 18-21 rays. Pectoral fin rays 19-20. Body depth 1.6-1.8 in standard length. Soft dorsal fin develops a point with growth. Posterior margin of preopercle finely serrate. Caudal fin rounded.

**Colour:** Sides with alternate blue and yellow stripes. Dorsal fin mainly yellow, caudal yellow, and anal blue and black. Black face mask with blue edge. Juveniles deep blue with curved circular white bands.

**Habitat and Biology:** Solitary. Usually seen on exposed outer reef areas near edges and caves in rich coral areas up to 25 m. Feeds primarily on sponges.

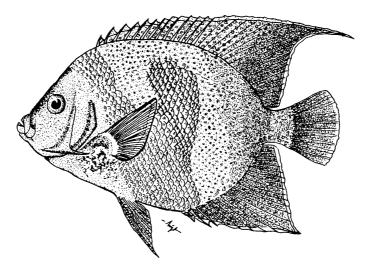
Distribution: Indo-Pacific.

**Remarks:** Adults of *Pomacanthus imperator* form territories which they defend vigorously against other members of the same species. Even individuals of the two sexes come together only to breed.

## بر ب و ۲۷٪ وسو

وَرُوَ وَرُرَدُوهُ وَمُرَارِوَمُ عُوْمُوهُ وَرُودُ الْمُوعُ 14 رَثَرَاعُ عُلَا اللهِ 12 رُّ وَوُوْدُ الْوَوْرَدُ وَوَرَاعُ وَوَلَا اللهِ الْحَدُودُ وَالْمُواَعُودُ اللهِ الْحَدُودُ وَمُوَرُونُ الْمُواَعُرُونُ اللهِ اللهِ الْحَدُودُ وَالْمُودُونُ وَلَوْدُ اللهُ اللهِ الْحَدُودُ وَالْمُودُونُ وَلَوْدُ اللهُ الله

#### Pomacanthus semicirculatus (Cuvier, 1831)



English Name: Semicircular angelfish Family: POMACANTHIDAE

Local Name :Baiburu kokaamasOrder :PerciformesSize :Max. 38 cmSpecimen :MRS/P0335/88

**Distinctive Characters:** Dorsal fin with 13 spines and 20-23 rays. Anal fin with 3 spines and 18-21 rays. Pectoral fin rays 19-21. A filament posteriorly on dorsal and anal fins.

**Colour:** Greenish body with dark flecks. Bright blue streaks on cheek, and the posterior part of the body with a blue outline. Lips yellow. Juveniles dark blue with white and pale blue crescents on their sides.

**Habitat and Biology:** Adults occur in coastal reefs with heavy coral growth to depths of 30 m. Generally solitary, but sometimes seen in pairs. Feeds on sponges, tunicates and algae.

**Distribution:** Indo-West Pacific.

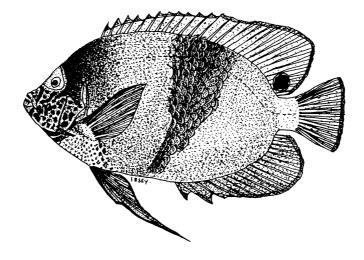
**Remarks:** *Pomacanthus semicirculatus* is rare in the Maldives. However, one pair lived on the wreck of 'Maldive Victory' near Hulhule for several years.

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ود مَرْدَيْنَ وَرَّمَ مَرْدَيْ مَرْدُونَ مَرْدُونَ وَمَرْدَدُ وَمَرْدُ مَرْدُ مَرْدُ مَرْدُونَ وَدِ مَدُونَ صَرْدَارَدُونَ وَدِ مَدُونَ مَرْدُونَ وَمَرَدُونَ وَمَرَدُونَ وَمَرَدُونَ وَمَرَدُونَ وَمَرَدُونَ وَمَرَدُونَ وَمَرَدُونَ وَمَرَدُونَ وَمَرَدُونَ وَمَرْدُونَ وَمَرْدُونَ وَمَرْدُونَ وَمَرْدُونَ وَمَرْدُونَ وَمَرْدُونَ وَمَرْدُونَ وَمِوْدِهِ وَمَرْدُونَ وَمِوْدِهِ وَمَرْدُونَ وَمَرْدُونَ وَمِوْدِهِ وَمَرْدُونَ وَمُرْدُونَ وَمُرْدُونَ وَمُرْدُونَ وَمُرْدُونَ وَمُرْدُونَ وَمُرَدُونَ وَمُرَدُونَ وَمُرْدُونَ وَمُونَا لِمُرْدُونَ وَمُونَا وَمُرْدُونَ وَمُونَا وَمُرْدُونَ وَمُونَا وَمُرْدُونَ وَمُوالِمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُؤْمِدُونَا وَمُونَا وَمُونَا وَمُرْدُونَا وَمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُؤْمُونَا وَمُؤْمُونَا وَمُ وَمُونَا وَالْمُونَا وَمُونَا والْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَالِكُونَا وَالْمُونَالِكُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَلَا لَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُوالِقُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونِ وَالْمُوالِقُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُوالِقُونَا وَالْمُوالِمُ وَالْم

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### Pomacanthus xanthometopon (Bleeker, 1853)



English Name: Blue-faced angelfish Family: POMACANTHIDAE

Local Name :Boa reendhoo kokaamasOrder :PerciformesSize :Max. 45 cmSpecimen :MRS/P0395/92

**Distinctive Characters:** Dorsal fin with 13-14 spines and 16-18 rays. Anal fin with 3 spines and 16-18 rays. 46-52 lateral line scales.

**Colour:** Face blue with dark spots. Broad yellow band between eyes (giving rise to alternate English name, Yellow-mask angelfish). Body scales dark with yellow edges giving a somewhat greeny appearance overall. Pectoral, dorsal and caudal fins yellow. All fins blue edged. Juveniles black with narrow white bars and blue lines which are curved posteriorly at upper and lower ends.

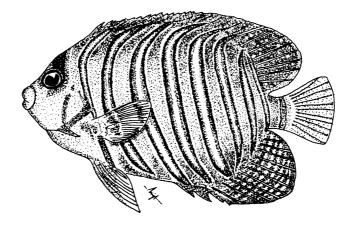
**Habitat and Biology:** Adults usually found adjacent to steep drop-offs or in protected lagoons at depths of 5-25 m. Solitary in habit. Feeds on soft corals and sponges.

**Distribution:** Maldives to Western Pacific.

**Remarks:** *Pomacanthus xanthometopon* is one of the most spectacular of Maldivian reef fishes. Juveniles are exported as aquarium fish, but its large adult size means that it is only suitable for big public aquaria.

ה מיתית בל מעל עם "

ود مُرَدِّ رَدُرَّ مُنْدَمِدُوْ وَنَوْ وَمَوْدَ وَدَّ مُنَاوَدَ هُوْ مَنَاوَدَ هُوْمَانُوْ وَدِ وَمَرْ مِمِ نَوْمَانُوْ نَعُرْدُو مُورِدِ رَدُرَّ مُنْدَمِدُوْ مَانَدُ وَمُرْوَوْنَ وِرَثَّ وَمَرْ سَهُدُوْرُوْرَ وَرَبَّوْ وَمَنْ وَرَبُوْدَ وَهُ دُورِ مُرْمَرُونِ وَمُرْمَانَ وَبُرِيْوِ مِنْدَدُونَ وَرَثُو مِنْدُودَ وَهُورُدُ وَهُورُونَ وَمَوْمَوْ وَرَدُو وَرَبُّ وَلَا مِنْ مُرْمِدُونَ مِنْدُورُ مَنْدُورُونَ وَرَدُونَ وَرَبُورُ مِنْدُورُ وَمُورَدُ وَمِنْ مُؤْرِدُو وَرَبُّ وَمُرْدَوْمِ وَمُرَدِّ مُنْدُورُ وَيَوْرُونَ وَمُورَانَ وَرَبُ رَبُورُ مِنْدُورُ مُورِدُ وَهُو وَمُورَدُ وَمُورَدُونَ وَرَبُولُونَ وَرَبُولُونَا وَرَبُولُونَا وَمُورَدُ وَمُورَدُونَا وَمُورَادُ وَمُورِدُونَا وَمُورَادُ وَمُورَدُ وَمُؤْدُونَا وَمُورَادُ وَمُؤْدُونَا وَمُؤْدُونَا وَمُؤْدُونَا وَمُورَادُونَا وَمُورَادُونَا وَمُونَا وَمُورَادُونَا وَمُؤْدُونَا وَمُؤْدُونَا وَمُورَادُونَا وَمُؤْدُونَا وَمُوالِمُونَا وَمُولِالْمُونَا وَمُؤْدُونَا وَمُؤْدُونَا وَمُؤْدُونَا وَمُؤْدُونَا وَمُؤْدُونَا وَمُؤْدُونَا وَمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُؤْدُونَا وَمُؤْدُونَا وَمُؤْدُونَا وَمُونَا وَمُونَالُونَا وَمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُونَا وَمُؤْدُونَا وَمُونَا وَمُونَا وَمُونَا وَمُؤْدُونَا وَمُونَا وَمُوالُونَا وَمُونَا مُوالْمُونَا وَمُونَا وَمُؤْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَالِونَا وَمُونَا وَالْمُونِونِ وَالْمُونِونِ وَالْمُونَا وَالْمُوالِونَا وَالْمُونِونِ وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونَا وَالْمُونِونِ وَالْمُونِ وَالْمُونِونِ وَالْمُونَا وَالْمُونَالُونَا وَالْمُونَا وَالْمُونِ وَالْمُونَا وَالْمُونِ وَالْمُونِ وَلَوْلُونَا وَالْمُونِي وَالْمُونِونِ وَالْمُونَا وَالْمُونِي وَلَوْلِقُونَا وَالْمُونِونِ وَالْمُونِي وَالْمُوالِمُونَا وَالْمُونِي وَالْمُونِونِ وَالْمُونِي وَالْمُونِي وَلَا



English Name: Regal angelfish Family: POMACANTHIDAE

Local Name :Kula kokaamasOrder :PerciformesSize :Max. 25 cmSpecimen :MRS/0223/88

**Distinctive Characters:** Dorsal fin with 13-14 spines and 18-19 rays. Anal fin with 3 spines and 18-19 rays. Pectoral fin rays 16-17. Body not as deep as *Pomacanthus* spp. Lateral line terminates below end of dorsal fin. About 8 rows of scales on operculum.

**Colour:** Brilliant orange with about 8 black-edged white bars on sides between nape and caudal peduncle. Blue lines on head and anal fin. Juveniles with large black spot on base of dorsal fin, becoming diffused blue patch in adults.

**Habitat and Biology:** Usually seen swimming from one coral crevice to another in depths up to 20 m. Feeds on sponges and tunicates.

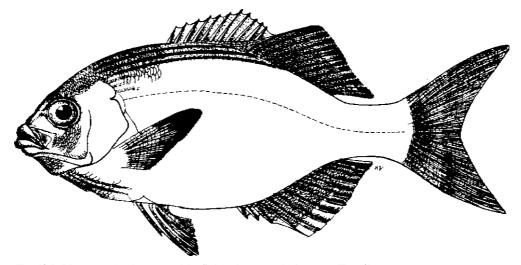
**Distribution:** Indo-Pacific.

**Remarks:** The superb colouration of *Pygoplites diacanthus* makes this a favourite with aquarists and divers alike. The specimens from the Maldives and the Indian Ocean are if anything more beautiful than those from the Pacific Ocean, which have a rather dull blue-grey (instead of bright orange) chin.

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## Kyphosus cinerascens (Forsskål, 1775)



English Name :Snubnose rudderfish, Blue sea chubFamily :KYPHOSIDAELocal Name :Kirulhiya masOrder :PerciformesSize :Max. 45 cmSpecimen :MRS/0048/86

**Distinctive Characters:** Dorsal fin with 11 spines and 12 rays. Anal fin with 3 spines and 11 rays. Pectoral fin rays 17-19. Soft portion of dorsal fin distinctly elevated higher than tallest dorsal spine. Preoperculum very finely serrated with a blunt spine. Snout short and profile steep.

**Colour:** Dark grey above, lighter below. Longitudinal dark lines on sides. Silvery band below eye. Fins mainly dark brown.

**Habitat and Biology:** Occurs in shallow coastal waters. Swims in groups high in water column during the day, but at night it swims alone near the bottom. Omnivorous but feeds mainly on benthic algae.

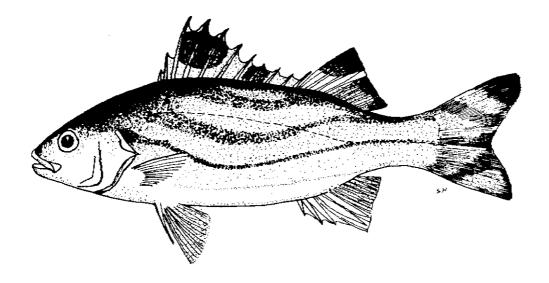
**Distribution:** Indo-Pacific.

**Remarks:** *Kyphosus cinerascens* is very similar in appearance to *K. vaigiensis* (Quoy and Gaimard), but both can be differentiated easily on the basis of fin counts and shape of the dorsal fin. In *K. vaigiensis* the dorsal soft rays usually number 14, and are not higher than the dorsal spines.

م تموير وسو

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#### Terapon jarbua (Forsskål, 1775)



English Name :Jarbua terapon, Thorn fishFamily :TERAPONIDAELocal Name :GuruvaOrder :PerciformesSize :Max. 32 cmSpecimen :MRS/0008/86

**Distinctive Characters:** Dorsal fin with 11-12 spines and 9-11 rays. Anal fin with 3 spines and 7-10 rays. Pectoral fin rays 13-14. Body depth 2.5-3.2 in standard length. Spinous part of dorsal fin strongly arched and deeply notched. Penultimate dorsal spine shorter than ultimate dorsal spine. Lower opercular spine very long, extending distinctly beyond edge of opercular flap.

**Colour:** Body silvery, with 3 or 4 curved dark brown or blackish stripes. Spinous dorsal fin with large black blotch. Several black stripes on caudal fin.

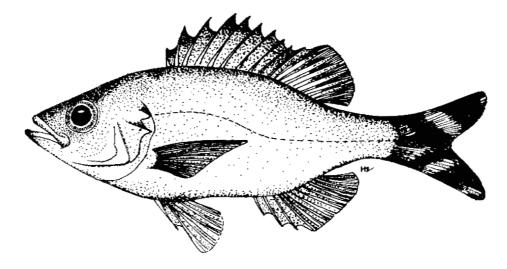
**Habitat and Biology:** Occurs in inshore waters, often in brackish and fresh waters. Lightly predacious feeding on small fishes and shrimps. Reported to be a scale eater.

**Distribution:** Widely spread in the Indo-West Pacific.

**Remarks:** The juveniles and adults of *Terapon jarbua* are often found in freshwater, but according to Wallace (1975) spawning occurs in the sea.

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#### Kuhlia mugil (Schneider, 1801)



English Name :Barred flagtailFamily :KUHLIIDAELocal Name :KattafulhiOrder :PerciformesSize :Max. 20 cmSpecimen :MRS/0027/86

**Distinctive Characters:** Dorsal fin with 10 spines and 9-11 rays. Anal fin with 3 spines and 9-11 rays. Pectoral fin rays 14. Gill rakers on lower limb 23-26. Lateral line scales 48 to 56. Body depth 2.7-3.1 in standard length. Oval, somewhat compressed body. Cheeks and operculum scaly. Lower edge of preopercle finely serrated. Operculum with two spines. Caudal fin forked.

Colour: Overall silvery. Caudal fin with 5 black bands.

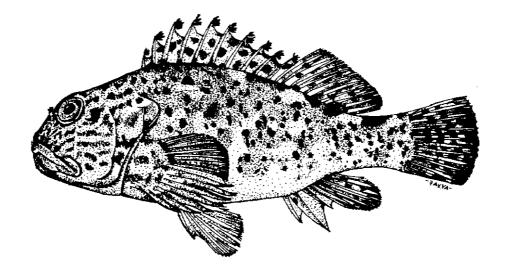
**Habitat and Biology:** Found schooling near reefs affected by surge. Juveniles sometimes in estuaries. Feeds on planktonic crustaceans and small fish.

**Distribution:** Indo-Pacific.

**Remarks:** *Kuhila mugil* is not at all shy of humans. It is a nocturnal predator, but during daytime it schools in shallow lagoons, often around jetties.

ما شريح تؤيو

#### Cirrihitus pinnulatus (Bloch and Schneider, 1801)



English Name :Stocky hawkfishFamily :CIRRHITIDAELocal Name :Fala gaaboaOrder :PerciformesSize :Max. 28 cmSpecimen :MRS/0222/88

**Distinctive Characters:** Dorsal fin with 10 spines and 11 rays. Anal fin with 3 spines and 6 rays. Pectoral fin with 14 rays. Body depth 2.6-3.0 in standard length. Body robust. Pectoral fin short, not reaching tips of pelvic fins. A tuft of cirri from near tip of each dorsal spine.

**Colour:** Body brown to olive, shading to white ventrally, with scattered large white and dark brown spots; small reddish spots on head.

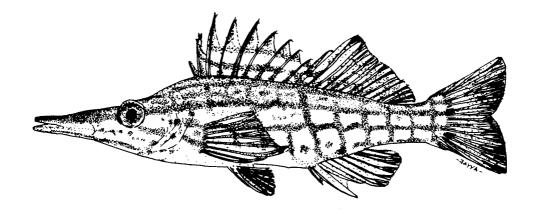
**Habitat and Biology:** Lives inshore in reefs or rocky bottoms exposed to surge. Feeds mainly on crabs but also other crustaceans and fishes.

**Distribution:** Indo-Pacific.

**Remarks:** Cirrihitus pinnulatus, like other hawkfishes, is a lie-and-wait predator. It perches on towering blocks of coral or on the walls of surge channels where it lurks motionless in wait for its prey.

01/3

### Oxycirrhites typus Bleeker, 1857



English Name :Longnose hawkfishFamily :CIRRHITIDAELocal Name :Thundhigu gaaboaOrder :PerciformesSize :Max. 13 cmSpecimen :MRS/0369/91

**Distinctive Characters:** Dorsal fin with 10 spines and 13 rays. Anal fin with 3 spines and 7 rays. Pectoral fin with 14 rays. Lower 5 or 6 pectoral rays unbranched. Body depth 4.4-4.6 in standard length. Snout extremely long. 2 or 4 cirri from membrane near tip of each dorsal spine.

**Colour:** Whitish with horizontal and near-vertical red bands forming a cross-hatch pattern. Males sometimes have a black border to the pelvic and caudal fins.

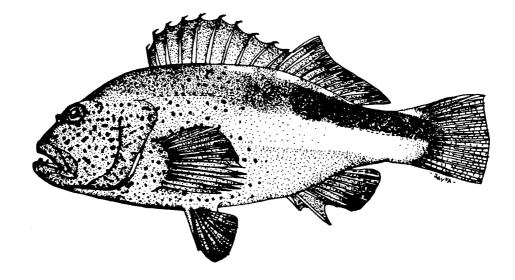
**Habitat and Biology:** Generally seen perched on black coral or gorgonians, usually at depths greater than 30 m. Feeds mainly on crustaceans, both benthic and planktonic.

**Distribution:** Indo-Pacific and Eastern Pacific.

**Remarks:** Unlike other hawkfishes. *Oxyirrhitus typus* is easily distinguished by its extremely elongated snout. A very popular aquarium fish.

## 0117 07

#### Paracirrhites forsteri (Schneider, 1801)



English Name:Black side hawkfishFamily:CIRRHITIDAELocal Name:Thijjehi gaaboaOrder:PerciformesSize:Common to 14 cm; max. 22.5 cmSpecimen:MRS/0110/87

**Distinctive Characters:** Dorsal fin with 10 spines and 11 rays. Anal fin with 3 spines and 6 rays. Pectoral fin rays 14 (uppermost and lower 7 rays unbranched). Body depth 2.6-2.9 in standard length. Palatine teeth absent. Interorbital space and almost all of snout scaly. A single cirrus from membrane near tip of each dorsal spine. 5 or 6 rows of scales on cheek.

**Colour:** Body yellowish with a broad blackish stripe on upper side (faint in some individuals, broken into large spots in others; often restricted to rear half of body). Head and front of body with numerous small dark reddish spots. Occasional individuals dark brown with orange-red spots anteriorly.

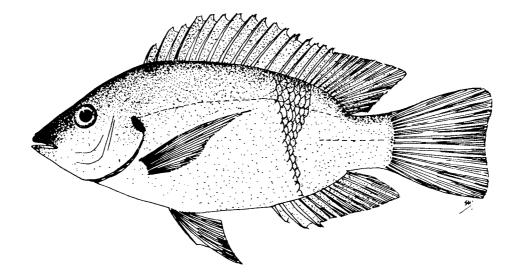
**Habitat and Biology:** Generally found on reef edge, often seen resting on live coral. Feeds heavily on small fishes, occasionally on crustaceans.

**Distribution:** Indo-Pacific.

**Remarks:** *Paracirrhitus forsteri* is a common hawkfish in the Maldivian reefs. It is often seen "sitting" on the outer most branches of *Pocillopora* or *Acropora* coral heads.

01/200

#### Oreochromis mossambicus (Peters, 1852)



English Name :Mozambique cichlid, TilapiaFamily :CICHLIDAELocal Name :Footumas, ThelaapiaOrder :PerciformesSize :Max. 36 cmSpecimen :MRS/0038/86

**Distinctive Characters:** Dorsal fin with 15-17 spines and 10-13 rays. Anal fin with 3 spines and 7-10 rays. Pectoral fin rays 13-14. Body depth 2.3 in standard length. Body compressed and oblong. Scales moderately large. Pectoral fin as long as head. Maxillary not extending to the front border of the eye.

Colour: Body greenish brown. About 5 dark bars on sides. Pelvic fin dark brown to black. Pectoral fin pale.

**Habitat and Biology:** Found in fresh water, brackish water or sea water but rarely in open sea. Feed on a wide variety of plant matter as well as on insects, crustaceans and fishes.

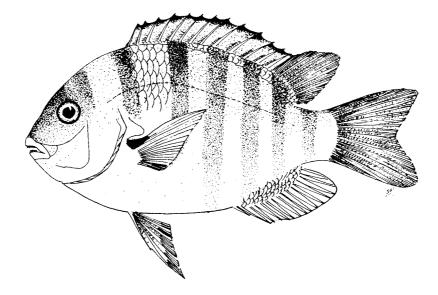
**Distribution:** Widespread.

**Remarks:** *Oreochromis mossambicus* was first brought to Maldives in 1964 by a Japanese Research Vessel Fuji Maru as bait from Sri Lanka. This species was first distributed on Huraa island in Kaafu Atoll by Mr N T Hassan Didi. Now common in several locations. Previously recorded under the genus *Sarotherodon* in the Catalogue of Fishes of the Maldives, Vol. 1, page 50.

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## Abudefduf septemfasciatus (Cuvier, 1830)



English Name: Seven-banded sergeant-major Family: POMACENTRIDAE

Local Name :Gui burandhaOrder :PerciformesSize :Max. 16 cmSpecimen :MRS/0059/86

**Distinctive Characters:** Dorsal fin with 13 spines and 12-14 rays. Anal fin with 2 spines and 11-13 rays. Pectoral rays 17-19. Body depth 1.7-1.9 in standard length. Body compressed with large scales. Operculum and preoperculum scaled. Opercles not serrated. Lateral line not continuous.

**Colour:** Yellowish brown with dark cross bands. Spinous dorsal fin with dark edges. Pectoral fin pale with a black spot at the base. Caudal and pelvic fin greyish.

**Habitat and Biology:** Inhabits rocky shores exposed to wave action and shallow reefs up to about 3 m. Feeds mainly on algae.

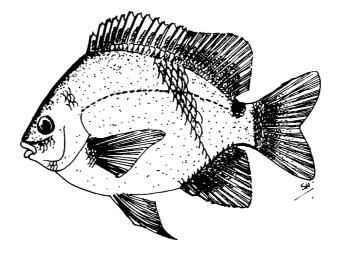
**Distribution:** Indo-Pacific.

**Remarks:** Abudefduf septemfasciatus is similar to A. sordidus (next page), but the former lacks the black spot on top of caudal fin base. The scientific name refers to the seven stripes on the body.

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وَرَى هَمُنَامِوَهِ ثَهُ مُهُورِي [ 1 رَثَمَانُهُ اللهِ 12 رَدُهُ اللهِ اللهِ 2 رَثُهُ اللهِ 2 رَثُهُ اللهِ 11 اللهِ 13 اللهِ 3 اللهِ 2 رَثُهُ اللهِ 3 اللهِ 4 اللهِ

## Abudefduf sordidus (Forsskål, 1775)



English Name: Blackspot sergeant Family: POMACENTRIDAE

Local Name :BurandhaOrder :PerciformesSize :Max. 17 cmSpecimen :MRS/0024/86

**Distinctive Characters:** Dorsal fin with 13 spines and 14-16 rays. Anal fin with 2 spines and 13-15 rays. Pectoral rays 18-20. Body depth 1.5-1.8 in standard length. Posterior part of suborbital scaled. 3 rows of scales on operculum. Opercular bones not serrated. First ray of pelvic fin elongated, equal to head length.

**Colour:** Brownish, paler below. Five yellow cross bars on sides of the body. A black saddle on caudal peduncle just behind the dorsal fin. A black blotch at the base of pectoral fin. Pelvic fin grayish, caudal fin brownish.

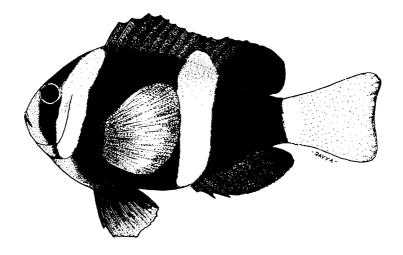
**Habitat and Biology:** Inhabits rocky shores exposed to wave action, up to about 3 m. Often found in rock pools. Usually in pairs or small parties. Feeds primarily on benthic algae.

Distribution: Indo-Pacific.

**Remarks:** Abudefduf sordidus is a very hardy aquarium fish. However, it is not very colourful and, like other damselfishes, it does tends to fight at times.

ה מיתיית בת

#### Amphiprion clarkii (Bennett, 1830)



**English Name:** Clark's anemonefish **Family:** POMACENTRIDAE

Local Name :Maagandu masOrder :PerciformesSize :Common to 8 cm; max. 12 cmSpecimen :MRS/P0495/97

**Distinctive Characters:** Dorsal fin with 10 or 11 spines and 14-17 rays. Anal fin with 2 spines and 12-15 rays. Pectoral rays 18-21. Body depth 1.7-2.0 in standard length.

**Colour:** Blackish with three white bars crossing head, body and caudal peduncle. There is considerable variation in the ratio of black to orange-yellow on the fins and ventral part of head and body.

**Habitat and Biology:** Inhabits lagoons and outer reef slopes up to 55 m. Symbiotic with a variety of anemones; usually one adult pair and a few juveniles per anemone. Omnivorous.

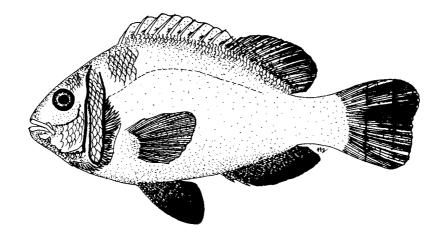
**Distribution:** Indo-Pacific.

**Remarks:** Amphiprion clarkii is the most widespread species in the genus, being found right across Indo-Pacific and occurring with a variety of giant sea anemones. Anemonefishes gain protection from predation among stinging tentacles of anemones. They themselves are immune to being stung, thanks to their special mucus coating. This gives them one of their Dhivehi names: "Saiboanimas" or soap fish.

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## Amphiprion nigripes Regan, 1908



**English Name:** Maldive anemone fish **Family:** POMACENTRIDAE

Local Name :Dhivehi maagandumasOrder :PerciformesSize :Max. 9 cmSpecimen :MRS/0006/86

**Distinctive Characters:** Dorsal fin with 10-11 spines and 17-18 rays. Anal fin with 2 spines and 13-15 rays. Pectoral rays 18-19. Body depth 2.0-2.2 in standard length. Maxillary reaching to below front border of eye. Pectoral fin shorter than head. Pelvic is slightly shorter than pectoral fin.

**Colour:** Orange, lower side of chest blackish. A single white transverse band, a little less than eye diameter in breadth; the white band edged with black. Pelvic and anal fins black. Dorsal, caudal and pectoral fins yellow.

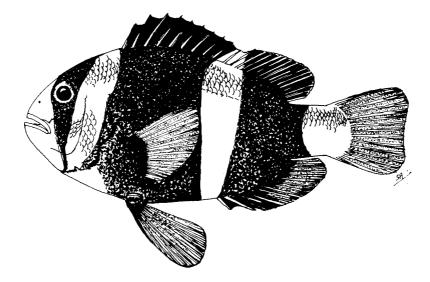
**Habitat and Biology:** Usually found on reef edges. Always associated with giant sea anemones. *Heteractis magnifica*. Aggressive to the fishes that feed on anemones. Omnivorous.

**Distribution:** Maldives and Laccadives. Also in Sri Lanka, but rare.

**Remarks:** *Amphiprion nigripes* is the common Maldivian anemonefish. It is much sought after by aquarists. For this reason, some reefs, particularly near Malé, have been stripped of this species. This species has also been recorded from Sri Lanka (where it is rare) and the Laccadives.

# ورور وكرسيوكس

#### Amphiprion sebae Bleeker, 1953



**English Name:** Sebae anemonefish **Family:** POMACENTRIDAE

Local Name :Saiboani masOrder :PerciformesSize :Max. 12 cmSpecimen :MRS/0007/86

**Distinctive Characters:** Dorsal fin with 10-11 spines and 14-17 rays. Anal fin with 2 spines and 13-14 rays. Pectoral rays 18-19. Body depth 2.0-2.2 in standard length. Preopercle finely serrate behind. Opercle, subopercle strongly serrated. Pectoral shorter than head, pelvic fins slightly longer than head.

**Colour:** Ground colour blackish. Two white transverse bars on the head and body, the second extending posteriorly on second half of dorsal fin. Caudal fin yellow.

**Habitat and Biology:** Associated with the giant anemone, *Stichodactyla haddoni*.

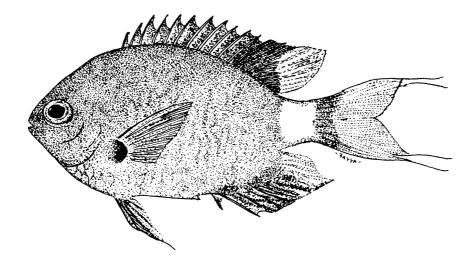
**Distribution:** Northern Indian Ocean.

**Remarks:** *Amphiprion sebae* is similar in appearance to *Amphipron clarkii*. Since both species are somewhat variable in colouration it is not always easy to tell them apart. However, *A. clarkii* usually has a third white band (on the caudal peduncle), and lacks the posterior extension of the second white band on the dorsal fin. Both these species are very popular among aquarists.

# سُور ڪروڪو

وَرْقَ هَمْرَسُوهِ ثَمْ مِرْهُرِ أَلَّ الْمَوْمُ الْمَرْدُوْ الْمُرْدُوْدُ الْمُرْدُوْدُوْدُ الْمُرْدُوْدُوْدُ الْمُرْدُوْدُوْدُ الْمُرْدُوْدُوْدُ الْمُرْدُوْدُوْدُ الْمُرْدُوْدُوْدُ الْمُرْدُوْدُوْدُ الْمُرْدُوْدُوْدُ الْمُرْدُودُوْدُ الْمُرْدُودُوْدُ الْمُرْدُودُوْدُ الْمُرْدُودُونُ اللّهُ الللّهُ اللّهُ اللّهُ اللّهُ الللّهُ اللّهُ اللّهُ اللّهُ اللّهُ

#### Chromis delta Randall, 1988



English Name: Deep-reef chromis Family: POMACENTRIDAE

Local Name :Fun nilamehiOrder :PerciformesSize :Common to 4 cm; max. 9 cmSpecimen :MRS/0361/91

**Distinctive Characters:** Dorsal fin with 12 spines and 12-14 rays. Anal fin with 2 spines and 12-14 rays. Pectoral rays 15-17. Body depth 1.8-2.1 in standard length. Caudal fin lobes ending in two filaments.

**Colour:** Dark grey-brown, bluish-grey ventrally, with a broad white bar on caudal peduncle often edged anteriorly with black. A black spot covering pectoral fin base and axil.

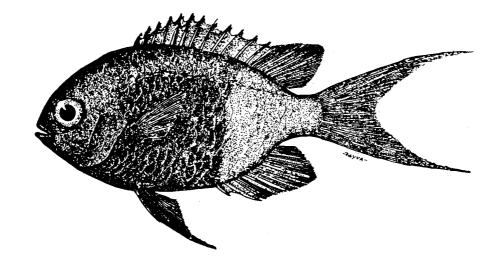
**Habitat and Biology:** Generally found on lower reef slopes at depths greater than 25 m. Feeds primarily on planktons.

**Distribution:** Maldives to Western Pacific.

**Remarks:** Chromis delta is common in the Maldives, but it is not often noticed by snorkellers or even divers because of its relatively small size and the fact that it tends to live in deep outer reef slopes. It is very similar to C. margaratifer, which so far is known from the Eastern Indian Ocean to Central Pacific, but which might occur in the Maldives.

ב התת <del>כ</del>ל כת ת

#### Chromis dimidiata (Klunzinger, 1871)



English Name: Twotone chromis Family: POMACENTRIDAE

Local Name :Ehkibadhon nilamehiOrder :PerciformesSize :Common to 5 cm; max. 9 cmSpecimen :MRS/0251/88

**Distinctive Characters:** Dorsal fin with 12 spines and 11-12 (usually 12) rays. Anal fin with 2 spines and 12 rays. Pectoral rays 15-17. Body depth 2.0-2.1 in standard length. Upper and lower edges of caudal fin base with two small spines. Suborbital bones scaled, their lower edges smooth. Preopercular margin smooth. Caudal fin forked, the lobe tips with two filamentous rays.

**Colour:** Head and anterior half of body dark brown, becoming abruptly white posteriorly. A black spot at base of pectoral fins.

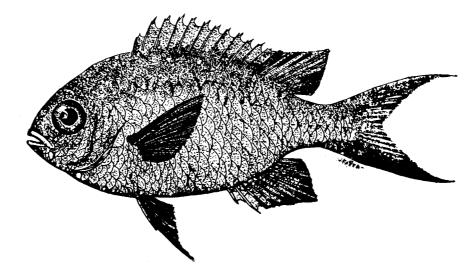
**Habitat and Biology:** Found on reef flats to upper slopes at depths down to at least 30 m. Feeds primarily on plankton.

**Distribution:** Indian Ocean, from the Red Sea to Christmas Island.

**Remarks:** *Chromis dimidiata* is common in the Maldives. It is often seen in small widely spaced stationary schools hovering 1 m or so above coral formations. Specimens from the Maldives tend to have the pale area extending anteriorly on the dorsal fin, unlike the specimens from further west.

## המשפת התפכת

#### Chromis ternatensis (Bleeker, 1856)



English Name: Ternate chromis Family: POMACENTRIDAE

Local Name :Lonu lunboaOrder :PerciformesSize :Max. 8 cmSpecimen :MRS/0023/86

**Distinctive Characters:** Dorsal fin with 12-13 spines and 10-12 rays. Anal fin with 2 spines and 10-12 rays. Pectoral rays 16-18. Body depth 1.8-1.9 in standard length. Membranes of spinous portion of dorsal fin not incised. Margin of preopercle smooth. Pelvic fin with first ray produced, equal or slightly longer than pectoral fin or head. Caudal fin deeply forked, the lobes elongated.

**Colour:** Adults golden brown. Juveniles with olive back and head. Yellowish to pale on sides and belly. Central caudal rays pale yellow, lobes dark brown. Pectoral fin pale.

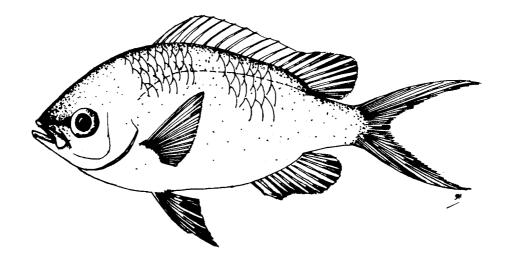
Habitat and Biology: Inhabits coral reefs, forming midwater aggregations in 2-15 m. Feeds on zooplankton.

**Distribution:** Indo-West Pacific.

**Remarks:** Chromis ternatensis is sometimes used as bait in Maldives for pole and line fishing. It is not normally targeted by bait fishermen, but is taken incidentally while bait fishing for other species.

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#### Chromis viridis (Cuvier, 1830)



English Name: Blue-green chromis Family: POMACENTRIDAE

Local Name :NilamehiOrder :PerciformesSize :Max. 8 cmSpecimen :MRS/0032/86

**Distinctive Characters:** Dorsal fin with 12 spines and 9-10 rays. Anal fin with 2 spines and 10-11 rays. Pectoral rays 17-18. Body depth 2.0-2.1 in standard length. Suborbital bones scaled, with lower margins smooth. Preopercular margin smooth. Caudal fin forked.

**Colour:** Blue-green shading to whitish ventrally. A faint dusky spot at upper base of pectoral fin. A blue line from front of snout to eyes. Nesting male yellow with black dorsal.

**Habitat and Biology:** Common on shallow lagoon reefs at depths of 1.5-12 m. Forms large aggregations, typically feed on plankton above rich beds of live coral.

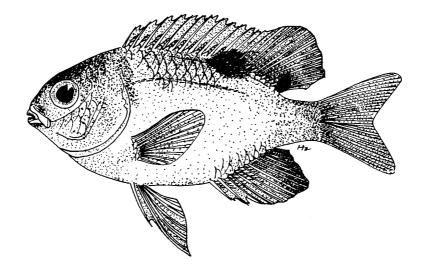
**Distribution:** Indo-Pacific.

**Remarks:** *Chromis viridis* is used as a bait for pole and line tuna fishery. It is used most commonly on the eastern side of the Maldives during the north east monsoon, and on the western side during the southwest monsoon. Previously recorded as *C. caeruleus* (as in Catalogue of Fishes of the Maldives, Vol. 1, page 116), but this name is now invalid.

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#### Chrysiptera biocellata (Quoy and Gaimard, 1824)



English Name: Twospot demoiselle Family: POMACENTRIDAE

Local Name :DhanbaaOrder :PerciformesSize :Max. 9 cmSpecimen :MRS/0045/86

**Distinctive Characters:** Dorsal fin with 13 spines and 12-14 rays. Anal fin with 2 spines and 13-14 rays. Pectoral rays 17-19. Body depth 2.2-2.5 in standard length. Body compressed. Pectoral fin shorter than the pelvic fin. First ray of pelvic fin elongated. Opercular bones not serrated. Dorsal spines gradually increasing in length to the end.

**Colour:** Variable. Body brownish grey, paler below. Adults darker and dull. Scattered blue spots on back and head. Two black spots posteriorly on dorsal fin.

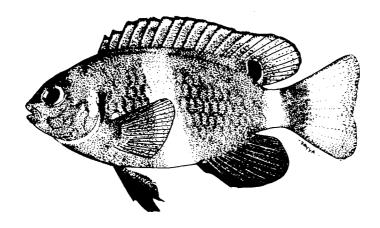
**Habitat and Biology:** Inhabits lagoons usually adjacent to shore among rubble or around rocky outcrops and sandy areas at depths up to 5 m. Occurs solitary or in groups. Feeds on benthic large.

**Distribution:** Indo-Pacific.

**Remarks:** Chrysiptera biocellata is sometimes confused with C. unimaculata but can be distinguished by its different habitat (C. unimaculata lives in more exposed areas). Previously recorded under the genus Abudefduf in Catalogue of Fishes of the Maldives, Vol. 1, page 106.

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## Chrysiptera brownriggii (Bennett, 1828)



English Name: Surge demoiselle Family: POMACENTRIDAE

Local Name :Faiga koshaa dhanbaaOrder :PerciformesSize :Max. 7.5 cmSpecimen :MRS/0213/88

**Distinctive Characters:** Dorsal fin with 13 spines and 12-13 rays. Anal fin with 2 spines and 11-13 rays. Pectoral rays 17-19. Body depth 2.2-2.5 in standard length.

**Colour:** Two colour varieties of phases. One is dark brown with two white bars on body and a yellow bar on gill cover. The other is yellow with blue band from above eye to upper caudal peduncle (may be interrupted below rear part of dorsal fin).

**Habitat and Biology:** Inhabits areas exposed to mild or surge up to 2 m, frequently in the vicinity of the reef crest or algal ridge. Occurs solitary or in small groups. Feeds mostly on algae and crustaceans.

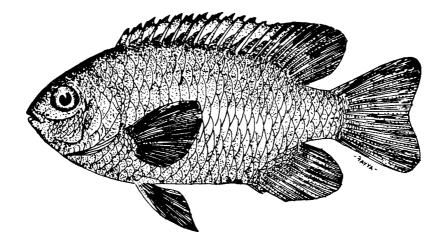
**Distribution:** Indo-Pacific.

**Remarks:** This species was previously known as *Chrysiptera leucopoma*. Since then, however, *Chrysiptera brownriggii*, described from Sri Lanka, has been found to be an older valid name.

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#### Chrysiptera glauca (Cuvier, 1830)



English Name: Grey demoiselle Family: POMACENTRIDAE

Local Name :Alhi dhanbaaOrder :PerciformesSize :Common to 7 cm; max. 10 cmSpecimen :MRS/0218/88

**Distinctive Characters:** Dorsal fin with 13 spines and 12-13 rays. Anal fin with 2 spines and 12-13 rays. Pectoral fin with 17-18. rays. Body depth 2.2-2.3 in standard length.

Colour: Generally pale blue or light grey. Juveniles with neon blue lines on forehead.

**Habitat and Biology:** Inhabit reef flat areas, exposed to mild or moderate surge in 0.5-2 m. Occurs solitary or in small groups. Feeds mainly on benthic algae.

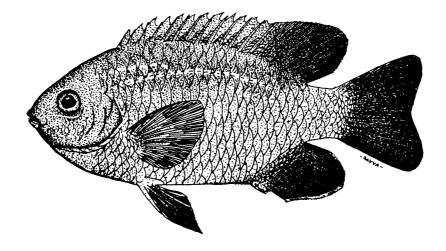
Distribution: Indo-Pacific.

**Remarks:** Chrysiptera glauca is very common in certain shallow, moderately exposed locations in the Maldives. The adults appear rather dull at first glance, but closer inspection reveals them to be very attractive fishes.

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## Chrysiptera unimaculata (Cuvier, 1830)



**English Name:** One spot demoiselle **Family:** POMACENTRIDAE

Local Name :Dhonkaru dhanbaaOrder :PerciformesSize :Common to 6 cm; max. 8 cmSpecimen :MRS/0217/88

**Distinctive Characters:** Dorsal fin with 13 spines and 13-14 rays. Anal fin with 2 spines and 12-14 rays. Pectoral rays 18-19. Body depth 2.1-2.4 in standard length. Suborbital bones scaleless, their lower edges smooth. Margin of preopercle smooth. Caudal fin slightly forked with rounded lobes.

**Colour:** Generally dark brown with yellowish pectoral fins. A small black spot at the base of posterior dorsal rays. Small juveniles mainly yellow with a blue stripe along back and an ocellus at middle of dorsal fin.

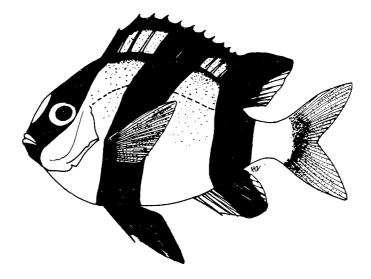
**Habitat and Biology:** Inhabit reef flat areas, exposed to mild or moderate surge up to 2 m. Usually seen among rubble or over barren beach-rock with occasional crevices. Occurs solitary or in small groups. Feeds mainly on benthic algae.

**Distribution:** Indo-West Pacific.

**Remarks:** *Chrysiptera unimaculata* is sometimes confused with *C. biocellata* but the former generally lacks a white bar on middle of body. Also *C. biocellata* tend to be seen in more sheltered areas.

## מ מעא בל תם

## Dascyllus aruanus (Linnaeus, 1758)



English Name: Three-bar dascyllus Family: POMACENTRIDAE

Local Name :Muraka masOrder :PerciformesSize :Max. 7.5 cmSpecimen :MRS/0004/86

**Distinctive Characters:** Dorsal fin with 12 spines and 11-13 rays. Anal fin with 2 spines and 11-13 rays. Pectoral rays 17-19. Body depth 1.5-1.7 in standard length. Suborbital bones scaled and finely serrate. Preopercular margin finely serrate. Pectoral fin slightly shorter than head.

**Colour:** White with three broad black bars. The first diagonal bar from nape and upper head through eye to chin. Caudal fin pale.

**Habitat and Biology:** Inhabits lagoon and coastal reefs in 1-12 m, usually found in aggregations around small coral heads. Feeds primarily on zooplankton in the water column above the corals. Takes shelter among the branches with the approach of danger.

Distribution: Indo-Pacific.

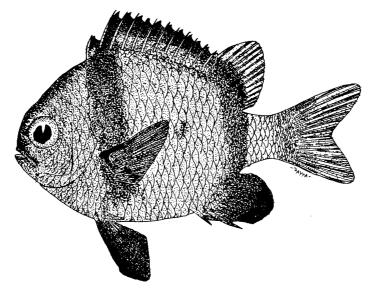
**Remarks:** *Dascyllus aruanus* is sometimes confused with *D. melanurus* (not recorded from the Maldives). They are easily distinguishable when seen together. The position of the anterior black bars and the lack of black on the caudal fin will serve to identify *D. aruanus*.

وتزروس

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## Dascyllus carneus Fischer, 1885



English Name: Indian dascyllus Family: POMACENTRIDAE

Local Name :Dhegalhi murakamasOrder :PerciformesSize :Common to 5 cm; max. 7 cmSpecimen :MRS/0219/88

**Distinctive Characters:** Dorsal fin with 12 spines and 14-16 rays. Anal fin with 2 spines and 13-14 rays. Pectoral rays 17-19. Body depth 1.5-1.6 in standard length.

**Colour:** Light brown with blue lines and spots on scales and broad dark bar crossing body behind operculum. Spinous dorsal, anal and pelvic fins black, often appears electric blue in life. Other fins pale.

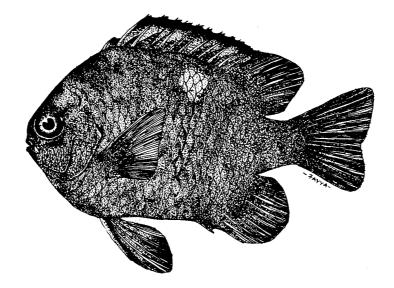
**Habitat and Biology:** Occurs on reef slopes to at least 40 m, usually in aggregations around small coral heads. Feeds on plankton.

Distribution: Indian Ocean, from East Africa to Indonesia.

**Remarks:** *Dascyllus carneus* is a very common coral reef species in the Maldives. Although not very colourful, it is exported from Maldives as live aquarium fish.

# فري و وترماؤك

## Dascyllus trimaculatus (Rüppell, 1828)



English Name: Threespot dascyllus, Domino Family: POMACENTRIDAE

Local Name :Kalhu murakamasOrder :PerciformesSize :Common to 7 cm; max. 12 cmSpecimen :MRS/0090/86

**Distinctive Characters:** Dorsal fin with 12 spines and 14-16 rays. Anal fin with 2 spines and 14-15 rays. Pectoral rays 19-21. Body depth 1.4-1.6 in standard length. Preopercular margin finely serrate. Suborbital bones scaled, their lower margins finely serrate.

**Colour:** Black to dark brown with 3 white spots, particularly prominent in juveniles. Adults generally lose the forehead spot, and the spot on the upperside is much reduced or frequently absent.

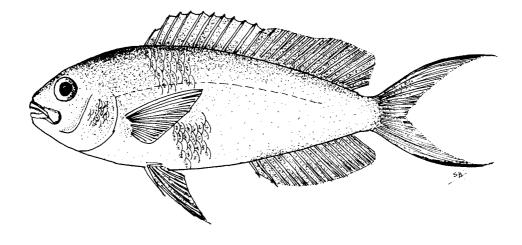
**Habitat and Biology:** Inhabits lagoons and reef areas up to 55 m. Occurs in small to large aggregations. Juveniles usually associate with sea anemones, *Diadema* sea urchins, or small coral heads. Feeds mainly on zooplankton and algae.

Distribution: Indo-Pacific.

**Remarks:** Dascyllus trimaculatus is very common in Maldives. It is a hardy species, and so despite its rather dull colouration it is popular with aquarists.

## مرو وترموك

## Lepidozygus tapeinosoma (Bleeker, 1856)



English Name: Fusilier damsel Family: POMACENTRIDAE

Local Name :BurekiOrder :PerciformesSize :Max. 9 cmSpecimen :MRS/0020/86

**Distinctive Characters:** Dorsal fin with 12 spines and 14-15 rays. Anal fin with 2 spines and 15-16 rays. Pectoral rays 21-22. Body depth 2.8-3.1 in standard length. Body elongate. Hind margin of preopercle finely serrated. Caudal fin deeply forked, lobes produced to be somewhat filamentous.

**Colour:** Olive to purplish on back becoming paler below. Dorsal and anal fins purplish brown with orange coloured oblique stripes. Last three dorsal rays orange coloured. Pectoral and pelvic fins pink.

**Habitat and Biology:** Usually inhabits the upper edge of outer reef slopes at depths up to 30 m, but occasionally collected on lagoon reefs. Most common in areas of rich coral growth. Usually found with aggregations of *Nemanthias carberryi*. Feeds on zooplankton well above the bottom.

**Distribution:** Indo-Pacific.

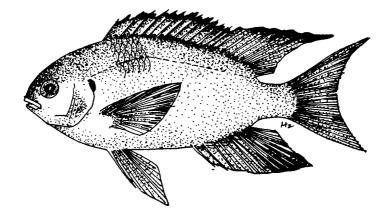
**Remarks:** Lepidozygus tapeinosoma is used as bait in pole and line tuna fishery. Its use is seasonal, depending to some extent on the availability of other, more easily collected, species. Near Malé, it is most often used during the northeast monsoon season and the preceding intermonsoon.

2 بخرم 0 بخرم ر

هُمُوهُ مَا مِنْ وَقَرِ مَارِهُ وَرَدُ وَسَوْعَهِ مَا وَیْدِ ظَایْرُونَ ثَرُ وِکَدُووْ خَکُرُو رَدُّسُومُوْدُ وَوَدُولُ وَرَدُوْ وَقَدْ وَيَ دُرُووُ فَهُ دُرُسُونُ وَيَ عَالَهُ مُولَا ثَرُ دُرُدُ وَقَدْ هُو مُولَا مُنْ مُرَدُ وَكُر دُرُمُونُ وَمُرَدُ وَمُرَدُودُ وَمُرَدُ وَكُرْنُو هِيَّ دُوَمَانُو مِي اللهِ مَا مُرَدُّ مُنْدُورُ وَمُولُومُ فَهُمْ وَمُرَدُ وَمُرَدُ وَمُرَدُودُ فَهُمْ دُرُودُ فَاهُمْ اللهِ اللهِ اللهِ اللهِ اللهُ اللهُ مُنْدُدُ وَمُر وَرُدُونَ مُرَدُ وَمُرَدُ وَمُرْدُودُ مُؤْدُونًا لَهُ مُؤْدُونًا وَمُؤْدُونًا اللهِ اللهِ اللهُ اللهُولِي اللهُ الل

وَرَى هَمْرَدُرِهُ هَمْرَدُرُهُ مَنْ مُرْمُرَهُ وَكَا رَهُمَا مُرَهُ لَكُ لَا لَهُ هَمْ 15 وَلَمَا مِرْفَرَدُوْ، هَمْ لَا مُرْمُرُهُ فَلَا مُرْمُ مُرَدُوْ فَلَا مُرْمُرُوْ فَلَا مُرْمُرُوْ فَلَا مُرْمُرُوْ فَلَا مُرْمُونُ فَلَا مُؤْمُونُ فَلَا مُرْمُونُ فَلَا مُرْمُونُ فَلَا مُرْمُونُ فَلَا مُرْمُونُ فَلَا مُرْمُونُ فَلِمُ مُونُ فَلِمُ مُونُونُ فَلِي فَلَا مُرْمُونُ فَلِمُ مُونُ فَلِمُ مُونُونُ فَلِمُ فَلِمُ مُونُونُ فَلِمُ فَالْمُونُ فَلِمُ مُونُونُ فَلِمُ مُونُونُ فَلِمُ فَلِمُ مُونُونُ فَلِمُ فَلِمُ مُونُونُ فَلِمُ فَاللَّا مُونُونُ فَلِمُ مُونُونُ مُونُونُونُ فَلِمُ فَلِمُ مُونُونُ فَا مُؤْمِلُونُ مُونُولُونُ فَالْمُونُ مُونُونُ فَالْمُونُ فَلِمُ مُونُونُ فَالْمُونُونُ فَا مُولِمُ مُونُونُ فَالْمُونُ مُونُولُونُونُ فَالْمُونُ مُونُونُ فَا مُؤْمُونُ فَ

## Pomacentrus pavo (Bloch, 1787)



English Name: Peacock damselfish Family: POMACENTRIDAE

Local Name :HunikeOrder :PerciformesSize :Max. 11 cmSpecimen :MRS/0044/86

**Distinctive Characters:** Dorsal fin with 13 spines and 12-14 rays. Anal fin with 2 spines and 12-14 rays. Pectoral rays 17. Body depth 2.4-2.6 in standard length. Body compressed. Preopercle scaled and serrated. Pelvic fin long. Dorsal and anal fin rays elongated. Caudal lobes pointed.

**Colour:** Bluish-green, ligher below. Scales on the head with a yellow small dot. A black blotch on hind border of opercle. Pelvic and pectoral fin hyaline, caudal fin dusky.

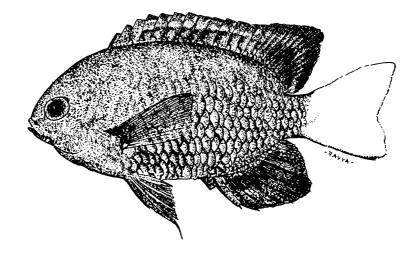
**Habitat and Biology:** Generally found around coral outcrops, frequently in sandy lagoons at depths up to 16 m. Occurs in small to large groups. Feeds on plankton and filamentous algae.

**Distribution:** Tropical Indo-Pacific.

**Remarks:** *Pomacentrus pavo* is superficially similar in appearance to *Chromis viridis* (see page 238). However, it can be distinguished by its more elongate shape, and the small dark spot on the back of opercle. Occasionally appears in livebait catches.

ב תייקש ת

## Pomacentrus philippinus Evermann and Seale, 1907



Local Name :Dhon nigoo dhanbaaOrder :PerciformesSize :Common to 7 cm; max. 9 cmSpecimen :MRS/0216/88

**Distinctive Characters:** Dorsal fin with 13 spines and 14-15 rays. Anal fin with 2 spines and 14-16 rays. Pectoral rays 18 or 19. Body depth 1.9-2.0 in standard length. Margins of preopercle and suborbital serrate; suborbital with a few scales. Teeth biserial.

**Colour:** Blackish with a bright orange-yellow caudal fin. A large black spot covering base of pectoral fin. Specimen from the Great Barrier Reef blackish with a pale streak on each scale.

**Habitat and Biology:** Inhabits passages and outer reef slopes in 1-12 m, usually around coral outcrops or in shadows of overhanging cliffs and ledges. Occurs solitary and in small groups.

**Distribution:** Maldives to Western Pacific.

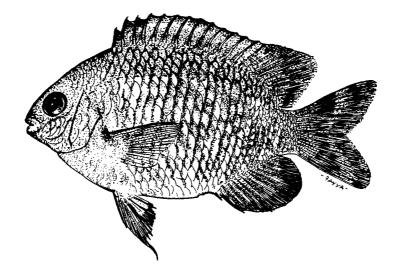
**Remarks:** In the Maldives and Sri Lanka, *Pomacentrus philippinus* has a distinctive yellow tail. In other parts of its range the yellow is either much more widespread or completely lacking.

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ود شرده و فرد و ف

وَرُی هَمُرَارِوَمِ تَهْمِرِهَدِی آلَهُ مِرَادُرِ 13 رَثَمَارُهُا 14 ثَرَهُمُ 15 وَلَمَارِدَثَمَدُوْ. هَسرلَارُمُوَدُ 14 ثَرَهُمُ 15 وَلَمَارِدَثَمَدُوْ. مَسْرَائِمَدُوْ. مَسْرَثَمُدُوْ. مَارُوْهُوَ 18 ثَرَوُمُ 19 ثَرَيْمُ مِرْدُرُدُورِ دُرُورِ اللهِ مُرَدُدُ وَلَائِمُ مُرَوْدُ وَلَائِمُ وَلَهُ اللهِ اللهِ اللهِ اللهُ الل

## Stegastes fasciolatus (Ogilby, 1889)



English Name: Pacific gregory Family: POMACENTRIDAE

Local Name :Rongu dhanbaaOrder :PerciformesSize :Max. 12 cmSpecimen :MRS/0214/88

**Distinctive Characters:** Dorsal fin with 13 spines and 15-17 rays. Anal fin with 2 spines and 12-14 rays. Pectoral rays 19-21. Body depth 1.6-2.1 in standard length. Margins of preopercle and suborbital serrate; suborbital scaled. Teeth uniserial.

**Colour:** Dark brown with black scale outlines. A small black spot on upper pectoral base. Many lavender spots on head and breast. Rear margins of dorsal, caudal and anal fins yellow. In juveniles tips of first few interspinous membranes of dorsal fin bright yellow; caudal peduncle and fin often yellow.

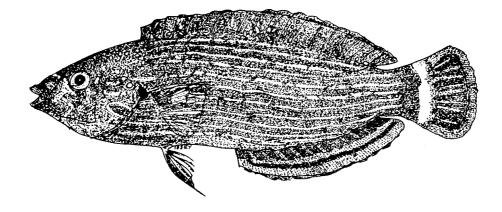
**Habitat and Biology:** Common in shallow areas exhibiting mild to moderate surge conditions at depths up to 5 m. Also occurs in rocky habitats from shallow surge pools down to at least 30 m.

Distribution: Indo-Pacific.

**Remarks:** *Stegastes fasciolatus* is common throughout most of its range. However, it is not well documented over much of its range, probably due to its sombre colouration which it shares with a number of other Indo-West Pacific members of *Stegastes* and *Pomacentrus*.

## מת ב בתתם

#### Anampses lineatus Randall, 1972



English Name:Lined wrasseFamily:LABRIDAELocal Name:Rongu kendi hikaaOrder:PerciformesSize:Max. 12 cmSpecimen:MRS/0354/91

**Distinctive Characters:** Dorsal fin with 9 spines and 12 rays. Anal fin with 3 spines and 12 rays. Pectoral fin with 13 rays. Gill rakers on the first gill arch 14-16. Body depth 3.2-3.4 in standard length. Caudal fin rounded

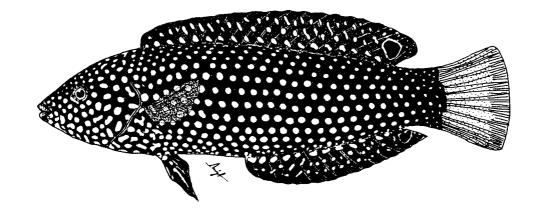
**Colour:** Body orange brown with pale blue-green longitudinal lines or lines of spots on sides. Caudal fin almost black with broad white band across base. Black spot on rear tip of operculum. Males with a yellow spot on pectoral region.

Habitat and Biology: Inhabits deeper reef areas usually at depths greater than 20-30 m.

Distribution: Indian Ocean.

**Remarks:** In the Pacific Ocean, *Anampses lineatus* is replaced by the closely related. *A. melanurus* which has a yellow, rather than a white, tail band, and lines of distinct spots on its sides.

### Anampses meleagrides Valenciennes, 1840



English Name:Spotted wrasse, Yellowtail wrasseFamily:LABRIDAELocal Name:Koveli hikaaOrder:PerciformesSize:Max. 21 cmSpecimen:MRS/0389/92

**Distinctive Characters:** Dorsal fin with 9 spines and 12 rays. Anal fin with 3 spines and 12 rays. Pectoral fin with 13 rays. Gill rakers on the first gill arch 18-20. Body depth 3.1-3.4 in standard length. Body moderately elongated. No median predorsal scales. Caudal fin truncate to emarginate.

**Colour:** Females dark brown with numerous small round dark spots, tail yellow. Males dark orange-brown with numerous fine blue markings (vertical on sides, horizontal on belly, irregular on head, spots and a white crescent posteriorly on tail).

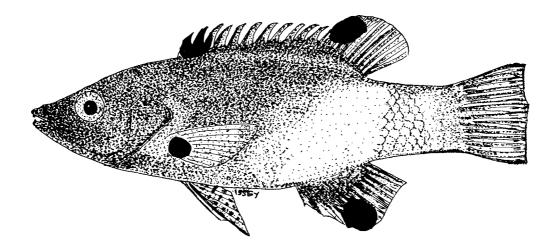
Habitat and Biology: Found in atoll rim reefs. Abundant in areas of rich coral growth.

**Distribution:** Indo-Pacific.

**Remarks:** *Anampses meleagrides* is a beautiful species which is widespread on Maldivian reefs. *A. amboinensis* Bleeker is a synonym based on the male form. A popular aquarium fish.

12 2 XX

#### Bodianus axillaris (Bennett, 1831)



English Name :Axil spot hogfishFamily :LABRIDAELocal Name :Lah kothari hikaaOrder :PerciformesSize :Max. 20 cmSpecimen :MRS/0384/92

**Distinctive Characters:** Dorsal fin with 12 spines and 9-10 rays. Anal fin with 3 spines and 12-13 rays. Pectoral fin with 15-17 rays. Body depth 2.8-3.1 in standard length. Snout pointed. Caudal fin varying from slightly rounded to slightly double emarginate.

**Colour:** Juveniles black with large white spots. Adults brown anteriorly and white posteriorly. Large black spots at the pectoral axil and on dorsal and anal fins.

**Habitat and Biology:** Juveniles usually seen in caves. Feeds on benthic invertebrates. Occasionally seen cleaning other fishes.

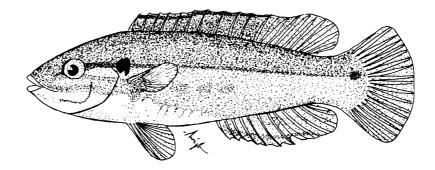
**Distribution:** Indo-Pacific.

**Remarks:** *Bodianus axillaris* undergoes a remarkable colour change as it grows. *B. albomaculatus* (Smith) is a synonym based on the juvenile stage.

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#### Bodianus bimaculatus Allen, 1973



English Name:Two spot slender hogfishFamily:LABRIDAELocal Name:Dhelah hikaaOrder:PerciformesSize:Max. 10 cmSpecimen:MRS/0382/92

**Distinctive Characters:** Dorsal fin with 12 spines and 9-10 rays. Anal fin with 3 spines and 12 rays. Pectoral fin with 14-16 rays. Body depth 3.6-4.0 in standard length. Caudal fin rounded.

**Colour:** Yellow to orange with six narrow red stripes shading to yellow on lower third of head and body. A large yellow edged black spot on opercle and a black spot about the size of pupil on caudal fin base slightly above the end of lateral line.

**Habitat and Biology:** Generally found on deep outer reef slopes at depths greater than 40 m. Feeds on benthic invertebrates.

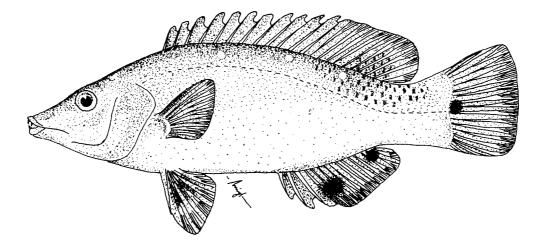
**Distribution:** Indo-West Pacific.

**Remarks:** *Bodianus bimaculatus* is the smallest member of the genus. It does not appear to be common in Maldives. This may be because it is a rather deep dwelling species.

فر تر درراً

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### Bodianus diana (Lacepède, 1801)



English Name :Diana's hogfishFamily :LABRIDAELocal Name :Thinthiki hikaaOrder :PerciformesSize :Max. 25 cmSpecimen :MRS/0412/92

**Distinctive Characters:** Dorsal fin with 12 spines and 9-10 rays. Anal fin with 3 spines and 10-12 rays. Pectoral fin with 15-17 rays. Body depth 3.1-3.3 in standard length. Snout pointed. Caudal fin slightly rounded in juveniles to truncate or slightly double emarginate in adults.

**Colour:** Juveniles brown mottled with lines of white blotches, and black spots on fins. Adults with brown head, yellow-brown sides and red-brown fins. Three small yellow spots dorsally. Black spots on pelvic, anal and caudal fins.

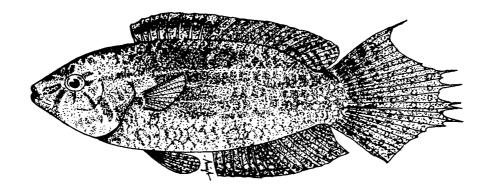
**Habitat and Biology:** Normally seen solitary on the reef slopes at depths between 6-30 m. Juveniles often clean other fishes.

**Distribution:** Indo-West Pacific.

**Remarks:** *Bodianus diana* is fairly common in Maldivian reefs. *Lapidaplois aldabrensis* Smith is a synonym based on the juvenile form.

می شرمی سرسا

#### Cheilinus bimaculatus Valenciennes, 1840



English Name : Two-spot wrasseFamily : LABRIDAELocal Name : Dhethiki hikaaOrder : PerciformesSize : Max. 15 cmSpecimen : MRS/0388/92

**Distinctive Characters:** Dorsal fin with 9 spines and 9-11 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 12-13 rays. Body depth 2.7-3.0 in standard length. Caudal fin round in juveniles, the upper and some middle rays prolonged in adults.

**Colour:** Mottled brown. Three small dark spots behind eye, on sides, and at front of dorsal fin. Orange-red lines radiating from eyes.

**Habitat and Biology:** Often found on substrata of thick algal growth or in plant dominated bottoms at depths greater than 15 m.

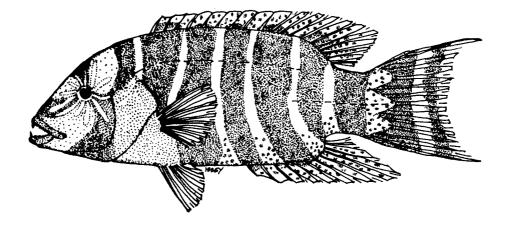
**Distribution:** Indo-Pacific.

**Remarks:** Cheilinus bimaculatus appears to be fairly uncommon and deep dwelling in the Maldives. The specimen on which this record is based was taken in 30-42 m near K. Ihuru.

בת ה*בערע* 

ود مُرْدَدُ ورَّمُ مَرْدُ وَمُورُومُ مَنْ وَهُ رِسَّوْهُ مَالْهُ رِمَا مُنْ وَهُومُ وَمَ مُرَّدُ وَمُومُ وَرَدُومِ وَدُومِ وَدُورُ وَمُورُومُ وَدُومِ وَدُومِ وَدُومِ وَدُومِ وَدُومِ وَدُومِ وَدُومُ وَرَمُومُ وَدُومُ وَدُومُ وَرَمُومُ وَدُومُ وَالْمُومُ والْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَالْمُومُ وَلِمُومُ والْمُومُ والْمُومُ والْمُومُ واللَّهُ واللّهُ واللّهُ واللّهُ واللّهُ واللّهُ واللّهُ واللّهُ ولِمُ لَا مُومُ واللّهُ واللّهُ واللّهُ واللّهُ واللّهُ واللّهُ ولِمُ لَاللّهُ واللّهُ والللّهُ واللّهُ والللللّهُ

#### Cheilinus fasciatus (Bloch, 1791)



English Name :Scarlet-breasted moari wrasseFamily :LABRIDAELocal Name :Fulah hikaaOrder :PerciformesSize :Max. 36 cmSpecimen :MRS/0108/87

**Distinctive Characters:** Dorsal fin with 9 spines and 10 rays. Anal fin with 3 spines and 8 rays. Body depth 2.3-2.6 in standard length. Dorsal profile of head convex, particularly that of large males. Caudal fin slightly round in juveniles, truncate with elongate pointed lobes in large males.

**Colour:** Brown with black streaks on scales and narrow white bars. Chest and pectoral region orange red. Narrow white lines radiating from eye.

**Habitat and Biology:** Inhabits coral reefs to depths of 30 m. Solitary in habit. Feeds on molluscs, crustaceans and sea urchins.

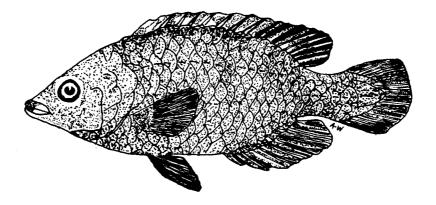
**Distribution:** Indo-Pacific.

**Remarks:** Cheilinus fasciatus is one of the most brightly coloured members of its genus, other species being finely marked but rather dull.

وْعُ حُرْرًا

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## Cheilinus oxycephalus Bleeker, 1853



English Name:Snooty wrasseFamily:LABRIDAELocal Name:Filaa hikaaOrder:PerciformesSize:Max. 17 cmSpecimen:MRS/0275/88

**Distinctive Characters:** Dorsal fin with 9 spines and 10 rays. Anal fin with 3 spines and rays. Body depth 2.5-3.0 in standard length. Dorsal profile of head from mouth to above eye concave. Mouth terminal or with lower jaw slightly projecting. Head scaled to above middle of eye. Caudal fin rounded in all stages.

**Colour:** Mottled brownish red. Dart spots on each side of upper lip, in front of dorsal fin, and sometimes behind eye. Juveniles and sub-adults with a midlateral row of small dark spots on body.

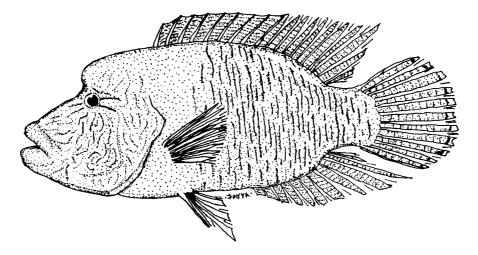
Habitat and Biology: A shy and secretive coral reef species.

Distribution: Indo-Pacific.

**Remarks:** Cheilinus oxycephalus is easily overlooked by divers and snorkellers due to its secretive habit and dull colouration.

وترريا

### Cheilinus undulatus Rüppell, 1835



**English Name :** Humphead wrasse, Napoleon wrasse **Family :** LABRIDAE **Local Name :** Maa hulhunbu landaa **Order :** Perciformes

Size: Max. 2.3 m

**Distinctive Characters:** Dorsal fin with 9 spines and 10 rays. Anal fin with 3 spines and 8 rays. Pectrol fin with 12 rays. Body depth 2.3-2.7 in standard length. Body moderately deep. Dorsal profile of head straight to eye, then becoming convex. Adults develop a large, fleshy hump on forehead. Lateral line interrupted below posterior portion of dorsal fin base. Caudal fin rounded.

**Colour:** Body olive to blue-green with vertical dark lines on scales. Irregular lines on head and two black lines extending back from eye. Juveniles pale greenish with elongate dark spots on scales of body tending to form bars; two black lines posteriorly from eye.

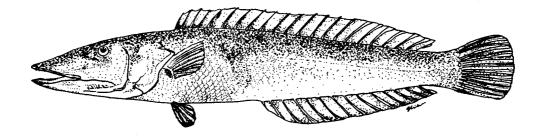
**Habitat and Biology:** Found mostly on deeper portions of coral reefs to depths of 60 m. Solitary. Feeds mainly on hard shelled prey including molluscs, crustaceans and sea urchins.

**Distribution:** Indo-Pacific.

**Remarks:** *Cheilinus undulatus* is the largest of the family Labridae. In spite of its large size, it is a wary fish. This species is protected in the Maldives.

## 

#### Cheilio inermis (Forsskål, 1775)



English Name : Cigar wrasseFamily : LABRIDAELocal Name : Ilolhi hikaaOrder : PerciformesSize : Max. 50 cmSpecimen : MRS/0261/88

**Distinctive Characters:** Dorsal fin with 9 spines and 12-14 rays. Anal fin with 3 spines and 11-12 rays. Pectoral fin rays 12. Body depth 5.5-8.0 in standard length. Body slender and elongated, not very compressed. Snout long. Caudal fin slightly rounded.

Colour: Usually bright green with lateral stripes, but may be brown, yellow or mottled.

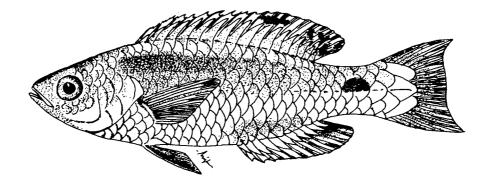
**Habitat and Biology:** Typically found in seagrasses or dense beds of algae at depths to 10 m. Mostly solitary in habit. Feeds chiefly on molluscs, hermit crabs, crabs, sea urchins and shrimps.

Distribution: Indo-Pacific.

**Remarks:** The garish green colouration of *Cheilio inermis* helps it to camouflages within the seagrass beds. Because of this it is normally only spotted by careful observers, even though it is quite common.

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## Cirrhilabrus exquisitus Smith, 1957



English Name :Exquisite wrasseFamily :LABRIDAELocal Name :Fari hikaaOrder :PerciformesSize :Max. 11 cmSpecimen :MRS/0274/88

**Distinctive Characters:** Dorsal fin with 11 spines and 8-9 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 14-16 rays. Body depth 3.2-3.5 in standard length. Rear opercular margin finely serrate. Pupil of eye double. Caudal fin of juveniles rounded, of adults double emarginate.

**Colour:** Green-red with distinctive black spots on upper half of caudal peduncle. Red concentrated on head and in broad band over pectoral base. Fine blue line under eye, and under caudal peduncle spot; two blue lines obliquely across pectoral base. Males more colourful.

**Habitat and Biology:** Found on rubble bottoms in regions of current at depths of 6-32 m. Occurs in aggregations on reefs. Feeds on zooplankton.

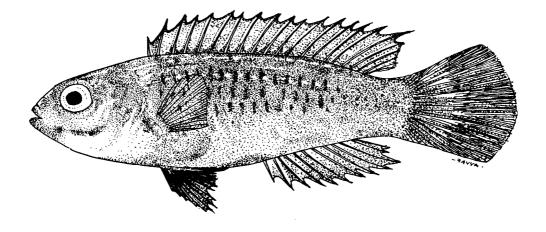
**Distribution:** Indo-Pacific.

**Remarks:** As the name suggests, *Cirrhilabrus exquisitus* is a beautiful wrasse. This species is very popular among aquarists.

و بور را

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#### Cirrhilabrus rubrisquamis Randall and Emery, 1983



English Name:Red scale wrasseFamily:LABRIDAELocal Name:Raiy hulhunbu hikaaOrder:PerciformesSize:Max. recorded 7.2 cm (standard length)Specimen:MRS/P0393/92

**Distinctive Characters:** Dorsal fin with 11 spines and 9 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 15 rays. Body depth 3.5 in standard length. Eyes moderately large (diameter about 3.5 in standard length). Lateral line interrupted. Caudal fin rounded.

**Colour:** Females pink, shading to pale yellow below; yellow on top of head and dorsal fin. Males bright red anteriorly, pale yellow posteriorly; anterior parts of dorsal and anal fins bright orange-yellow.

**Habitat and Biology:** Occurs in small aggregations on outer reef slopes, in depths of over 30 m. Feeds on zooplankton above the bottom.

Distribution: Maldives, Chagos and Sri Lanka.

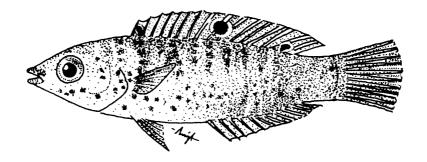
**Remarks:** *Cirrhilabrus rubrisquamis* is probably fairly common in Maldives but it is rarely seen by divers because of its deep dwelling habitat. It appears to be more common in depths of 50-60 m.

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#### Coris batuensis (Bleeker, 1856)



English Name :Batu corisFamily :LABRIDAELocal Name :Galhi kendi hikaaOrder :PerciformesSize :Max. 19 cmSpecimen :MRS/0386/92

**Distinctive Characters:** Dorsal fin with 9 spines and 11 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 13-15 rays. Body depth 2.8-3.5 in standard length.

**Colour:** Pale and rather drab. Spots on sides and broad bars on back changing from reddish to greenish with growth. Small dark spot behind eye. Two dark oscillated spots on dorsal fin. Large males with all colours darker. Juveniles white with irregular greenish bars and small orange spots.

**Habitat and Biology:** A common inhabitant of shallow reef flats and lagoon areas, where its pale colouration is no doubt a useful camouflage.

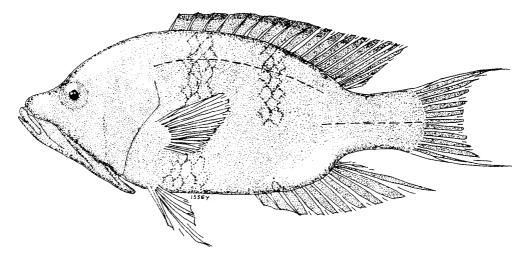
**Distribution:** Indo-Pacific.

**Remarks:** *Coris batuensis* is sometimes referred as *C. schroederi* (a synonym) and is very close to *C. variegata* (Ruppell) from the Red Sea.

צעשתברע

ووَرُسُ مِوْرُوْ وَمِ رُدُوْ وَمِ مُرْدُودُ مُرَكَةُ ثَمَوْدُهِ مُرَوَّدُهُ وَرُسُ مِوْ مَدُورُ وَمُرَدُورٍ. دِسرِهِ بِيُسِوسُونُهِ وَوَيَحُومُ وَرُوْ سِورُدُسُ وِصَاشُ وِوَرُسُ "وَعِيْسِهِ بِـنَّ" مِوْرُدُوَ بِرَدُقَ.

#### Epibulus insidiator (Pallas, 1770)



English Name :Slingjaw wrasseFamily :LABRIDAELocal Name :Thun dhamaa hikaaOrder :PerciformesSize :Max. 35 cmSpecimen :MRS/0100/87

**Distinctive Characters:** Dorsal fin with 9 spines and 10 rays. Anal fin with 3 spines and 8-9 rays. Pectoral fin with 12 rays. Body depth 2.0-2.3 in standard length. Jaws extremely protractile. Pelvic fins of adults long. Preopercular margin smooth. Caudal fin of males with prolonged lobes.

**Colour:** Usual colour dark brown, occasionally yellow. Lower head and thorax abruptly pale grey. A large diffuse orangish area on nape and adjacent upper part of the body. Juveniles brown with 3 narrow white bars on body and white lines radiating from eye.

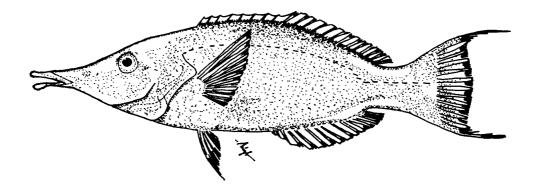
**Habitat and Biology:** Found mostly in shallow coral reefs at depths of 5 or 6 m. Solitary in habit. Feeds mainly on small fishes, crabs and shrimps, which it captures by rapid protrusion of the jaws.

**Distribution:** Indo-Pacific.

**Remarks:** *Epibulus insidiator* is a common inhabitant of the Maldivian reefs. It can be seen in two very different colour forms.

ה מנבל פרע" משפת פרע"

## Gomphosus caeruleus Lacepède, 1801



English Name:Bird wrasseFamily:LABRIDAELocal Name:Theyofulhi hikaaOrder:PerciformesSize:Max. 28mSpecimen:MRS/0385/92

**Distinctive Characters:** Dorsal fin with 8 spines and 13 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 15 rays. Body depth 3.7-4.0 in standard length. Snout extremely long and slender (except small juveniles), its length more than half length of head. Caudal fin changes from truncate in initial phase fish to emarginate with prolonged lobes in terminal males.

**Colour:** Females brown, pale below. Males dark blue-green with pale green dorsal, anal and posterior crescent of caudal fin; rear edge of pectorals blue.

**Habitat and Biology:** Found mostly on coral and rocky reefs to depths of 15 m. Feeds on small invertebrates that it picks from cracks and crevices in coral and rock with its elongate jaws.

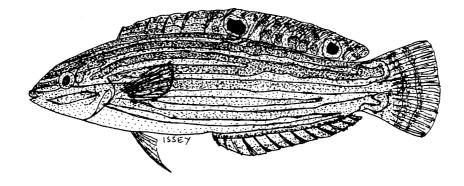
Distribution: Indian Ocean.

**Remarks:** With its distinctive shape, *Gomphosus caeruleus* is impossible to confuse with any other Maldivian fish species. Coloured differently in the Red Sea where it has been named *G.c. klunzingeri* by Klausewitz.

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#### Halichoeres cosmetus Randall and smith, 1982



English Name :Adorned wrasseFamily :LABRIDAELocal Name :Nala hikaaOrder :PerciformesSize :Max. 12mSpecimen :MRS/0396/92

**Distinctive Characters:** Dorsal fin with 9 spines and 11 rays (rarely 12). Anal fin with 3 spines and 11 rays. Pectoral fin with 12-14 rays. Body depth 3.2-4.1 in standard length. Head naked. Scales on chest smaller than those of body.

**Colour:** Females pale pinky orange, striped yellow, small black spots behind the eye; two white rimmed black spots on dorsal fin. Males green with orange stripes anteriorly and bars posteriorly.

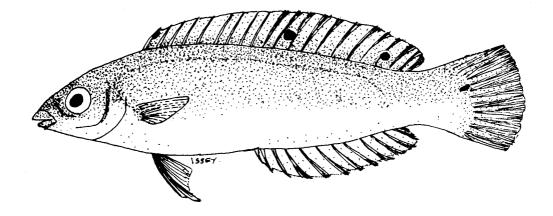
**Habitat and Biology:** Found mostly on reef slopes at depths of 2-30 m. Feeds mainly on benthic animals. As far as known, all species of *Halichoeres* sleep in the sand at night.

**Distribution:** Western Indian Ocean.

**Remarks:** *Halichoeres cosmetus* is a common wrasse in the Maldives. The name *cosmetus* from the Greek word meaning adorned, in reference to its brilliant and complex colouration. Related to *H. ornatissimus* (Garret) of the Pacific.

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#### Halichoeres leucoxanthus Randall and Smith, 1982



English Name :Lemon meringue wrasseFamily :LABRIDAELocal Name :Dhon lunboa hikaaOrder :PerciformesSize :Max. 11 cmSpecimen :MRS/0268/88

**Distinctive Characters:** Dorsal fin with 9 spines and 12 rays. Anal fin with 3 spines and 12 rays. Pectoral fin with 13 rays. Body depth 3.5-3.9 in standard length. Third anal spine 4.1-4.4 in head length.

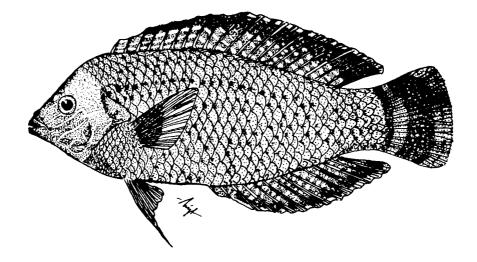
**Colour:** Yellow above, white below. Four black spots on front middle and rear of dorsal fin and caudal base. Posterior three spots lost in mature adults.

**Habitat and Biology:** Found on reefs between 10-60 m depth. Inside the atoll it is common near bottom of reef slope, where reef meets the atoll basin floor. Feeds on small benthic animals.

**Distribution:** Maldives to Western Indonesia.

**Remarks:** *Halichoeres leucoxanthus*, like many other wrasses, is a popular aquarium fish. This species is very closely related to the all yellow *H. chrysus* Randall of the Pacific and Eastern Indian Ocean.

## Halichoeres marginatus Rüppell, 1835



English Name :Dusky wrasseFamily :LABRIDAELocal Name :Mushi hikaaOrder :PerciformesSize :Max. 17 cmSpecimen :MRS/0269/88

**Distinctive Characters:** Dorsal fin with 9 spines and 13-14 rays. Anal fin with 3 spines and 12-13 rays. Pectoral fin with 13-15 rays. Body depth 2.6-3.2 in standard length. Head naked, scales dorsally on nape extending to a vertical at rear edge of eye.

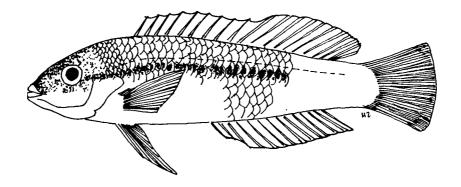
**Colour:** Females dark brown, with white caudal fin and two yellow edged dark spots on dorsal fin. Males brown with dark spots on each scale forming longitudinal lines; narrow blue lines on head; green bar on caudal base; yellow streak on pectoral fin. Juveniles black with yellow stripes.

**Habitat and Biology:** Prefers coastal rocky shores as well as the coral rich edges of the fringing reefs to depths of 30 m.

**Distribution:** Indo-Pacific.

**Remarks:** *Halichoeres marginatus* is a rather sombre species so easily overlooked, although the male on close inspection can be seen to be very attractive.

#### Halichoeres scapularis (Bennett, 1831)



English Name : Zigzag wrasseFamily : LABRIDAELocal Name : Dhon hikaaOrder : PerciformesSize : Max. 20 cmSpecimen : MRS/046/86

**Distinctive Characters:** Dorsal fin with 9 spines and 11 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 14 rays. Body depth about 3.5 in standard length. Pectoral fin shorter than pelvic fin.

**Colour:** Initial-phase adults with a dark brown stripe from eye along upper side (where often zigzag) to upper caudal base; body above stripe greenish, below white. Terminal males retain the zigzag stripe on body, though broader and suffused with pink; ground colour green with blue edged pale pink spots following scale rows on sides; head green with irregular blue edged pink bands and spots.

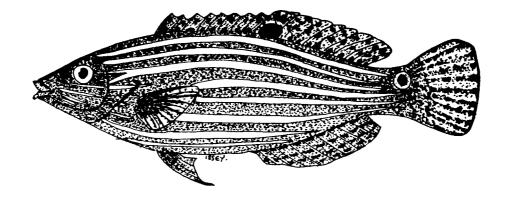
**Habitat and Biology:** Usually found in shallow lagoons or bays, associated more with sand, rubble, or seagrass bottoms to depths of 12 m. Feeds on sand-dwelling animals.

**Distribution:** Indo-West Pacific.

**Remarks:** *Halichoeres scapularis* is a common wrasse in Maldivian reef flats. It is more often encountered on sand and rubble areas than on rich coral areas.

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#### Halichoeres vrolikii (Bleeker, 1855)



English Name :Greenbarred wrasseFamily :LABRIDAELocal Name :Dhon noo hikaaOrder :PerciformesSize :Max. 13 cmSpecimen :MRS/0267/88

**Distinctive Characters:** Dorsal fin with 9 spines and 12 rays. Anal fin with 3 spines and 12 rays. Pectoral fin with 14 rays. Body depth about 3.0-3.4 in standard length.

**Colour:** Females orange and blue striped, with 3 blue ringed black spots, at the front of the dorsal, in the middle of dorsal and at upper caudal base. Male green with pink bands on head, and yellow pectoral fin base with a triangular black spot on its upper part.

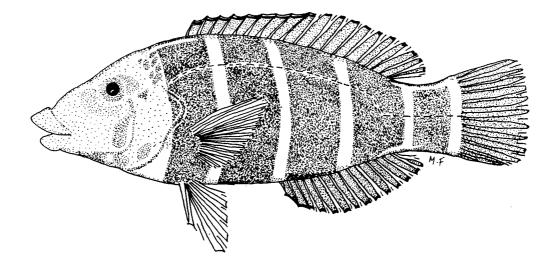
**Habitat and Biology:** Usually found on reef flats, reef slopes, shallow lagoons and reef channels to depths of 27 m. Feeds on small benthic animals.

**Distribution:** Maldives to Western Pacific.

**Remarks:** *Halichoeres vrolikii* has often been known by the synonym *H. hoevenii. H. vrolikii* is one of a complex group of similar species (although the only one known from Maldives) which has in the past made accurate identification very difficult.

מנים ככ על מתיית ית תע

## Hemigymnus fasciatus (Bloch, 1792)



English Name :Barred thicklip wrasseFamily :LABRIDAELocal Name :Galhi kendi thunbodu hikaaOrder :PerciformesSize :Max. 45 cmSpecimen :MRS/0260/88

**Distinctive Characters:** Dorsal fin with 9 spines and 11 rays. Anal fin with 3 spines and 11 rays. Total gill rakers 22-24. Body depth 2.4-2.6 in standard length. Lips very thick and fleshy, the lower deeply incised in median line. Caudal fin slightly rounded.

**Colour:** Dark, almost black, sides with several white bars on body. Face brightly patterened with red and green. Juveniles have more and thinner white bars than adults.

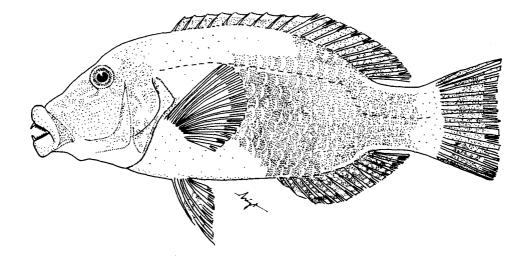
**Habitat and Biology:** Found more in protected reefs than exposed reefs at depths up to 20 m. Feeds primarily on small crustaceans, molluscs and echinoderms.

Distribution: Indo-Pacific.

**Remarks:** *Hamigymnus fasciatus* feeds by taking mouthfuls of sand, sorting the material for a few moments to extract animal material, and ejecting indigestible sediments from its mouth or gill opening.

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#### Hemigymnus melapterus (Bloch, 1791)



English Name:Thicklip wrasseFamily:LABRIDAELocal Name:Kalhali thunboa hikaaOrder:PerciformesSize:Max. 50 cmSpecimen:MRS/0387/92

**Distinctive Characters:** Dorsal fin with 9 spines and 11 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 14 rays. Total gill rakers 26-29. Body depth 2.4-2.7 in standard length. Lips very thick and fleshy, the lower deeply incised in median line. Caudal fin slightly rounded.

**Colour:** Head and anterior body light grey. The upper half of head with irregular, blue edged pink bands. Most of body dark purplish, the edges of scales black with a curved vertical pale blue lines or spots on each scale. Median fins dark purplish with fine blue markings. Juveniles with white bands preceding black posterior half and with yellow caudal fin.

**Habitat and Biology:** Found more in protected reefs than exposed reefs at depths up to 20 m. Feeds primarily on small crustaceans, molluscs and echinoderms.

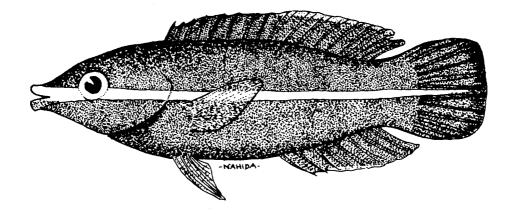
Distribution: Indo-Pacific.

**Remarks:** *Hemigymnus melapterus*, like *H. fasciatus*, feeds on invertebrates which it sorts out from mouthfuls of sand. This species is common and wide-ranging on Maldivian reefs.

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## Labrichthys unilineatus (Guichenot, 1847)



English Name : Tubelip wrasseFamily : LABRIDAELocal Name : Eh rongu hikaaOrder : PerciformesSize : Max. 17.5 cmSpecimen : MRS/0401/92

**Distinctive Characters:** Dorsal fin with 9 spines and 11-12 rays. Anal fin with 3 spines and 10-11 rays. Pectoral fin with 14-15 rays. Preopercular margin covered by scales. Top of head scaled to nostrils. Lower part of head scaled anterior to eye. Body depth 2.6-3.2 in standard length. Lips thick and fleshy forming a tube when closed. Caudal fin strongly rounded.

**Colour:** Dark brown, almost black. Juveniles with 2 white lines along sides, lower one lost with growth. Females with yellow lips and pale blue caudal margins. Males with dark blue lines on head and body. Broad yellow bars on sides behind pectoral.

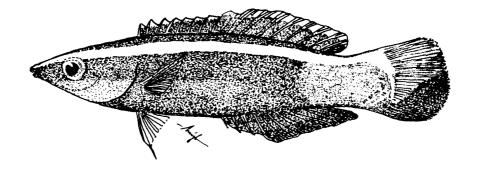
**Habitat and Biology:** Occurs in sheltered coral-rich habitats. Feeds on coral polyps.

**Distribution:** Indo-Pacific.

**Remarks:** *Labrichthys unilineatus* is a small and dark-coloured species so it is easily overlooked, even thought it is not uncommon on Maldivian reefs. There is only one species in the genus. *L. cyanotaenia* Bleeker is as synonym.

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#### Labroides bicolor Fowler and Bean, 1928



English Name :Bicolour cleaner wrasseFamily :LABRIDAELocal Name :Dhon theyofulhi masOrder :PerciformesSize :Max. 14 cmSpecimen :MRS/0391/92

**Distinctive Characters:** Dorsal fin with 9 spines and 10-11 rays. Anal fin with 3 spines and 9-10 rays. Pectoral fin with 13 rays. Body depth 3.7-4.5 in standard length. Small scales on cheek, opercle and nape. Lips thick, the lower strongly bi-lobed. Caudal fin slightly rounded.

**Colour:** Adults dark anteriorly and pale posteriorly. Females grey and pale yellow, males dark blue/ black and bright yellow. Juveniles with bright yellow dorsal stripe.

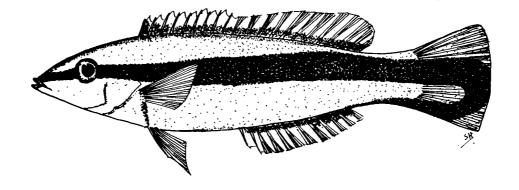
**Habitat and Biology:** Commonly seen moving over the reef slopes to depths of 42 m. Feeds on ectoparasites (and mucus) of other fishes.

**Distribution:** Indo-Pacific.

**Remarks:** *Labroides bicolor* is a cleaner wrasse and is the largest of the genus. It is more inclined to follow larger fishes in its cleaning operations than other cleaner wrasses.

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# Labroides dimidiatus (Valenciennes, 1839)



English Name :Cleaner wrasseFamily :LABRIDAELocal Name :Theyofulhi masOrder :PerciformesSize :Max. 11.5 cmSpecimen :MRS/0042/86

**Distinctive Characters:** Dorsal fin with 9 spines and 10-11 rays. Anal fin with 3 spines and 10 rays. Pectoral fin with 13 rays. Body depth 4.1-4.7 in standard length. Small scales on cheek, opercle and nape. Lips thick, the lower strongly bi-lobed. Caudal fin truncate to slightly rounded.

**Colour:** Adults light blue, shading to pale yellowish or white anteriorly, with a black stripe from snout through eye to rear edge of caudal fin. This stripe is progressively broader posteriorly. Juveniles largely black with a narrow bright blue stripe on back which continues onto dorsal part of head.

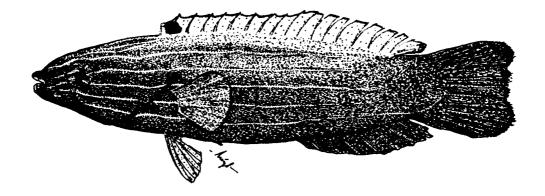
**Habitat and Biology:** Commonly seen on upper reef slopes to depths of 40 m. Feeds on crustacean ectoparasites (and mucus) of other fishes.

**Distribution:** Indo-Pacific.

**Remarks:** Unlike *L. bicolor* (previous page), *Labroides dimidiatus* even enters the mouths and gill chambers of some of the larger host fishes in its cleaning operations. Also establishes "cleaning stations" on the reef to which host fishes come for its services.

# ۀ ټر تر و وکس

# Labropsis xanthonota Randall, 1981



English Name :Yellowback wrasseFamily :LABRIDAELocal Name :Dhon kothari hikaaOrder :PerciformesSize :Max. 13.5 cmSpecimen :MRS/0400/92

**Distinctive Characters:** Dorsal fin with 9 spines and 11 rays. Anal fin with 3 spines and 10 rays. Pectoral fin with 14-15 rays. Body depth 3.4-3.8 in standard length. Lips thick and fleshy. Postorbital head and posterior suborbital with small scales. Caudal fin of juveniles rounded; females truncate with round corners; males emarginate.

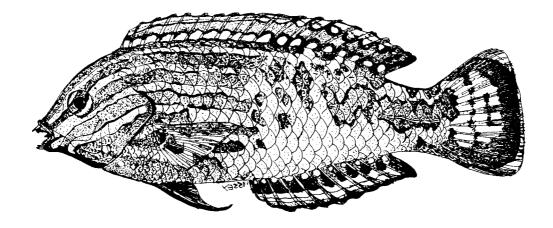
**Colour:** Females dark brown or black, yellow dorsally and with fine blue lines on sides. Males brown, each scale with a yellow dot. Yellow margin to operculum. White wedged-shaped area on caudal fin. Juveniles similar to females but lacking brown region of upper side.

**Habitat and Biology:** Commonly found on rich coral areas at depths of 7-55 m. Adults feed on coral polyps. Juveniles often seen cleaning other fishes.

**Distribution:** Indo-Pacific.

**Remarks:** *Labropsis xanthonota*, like other wrasses is among the first to retire to an inactive state with the approach of darkness and among the last to resume activity the following morning.

# Macropharyngodon bipartitus Smith, 1957



English Name :Divided wrasseFamily :LABRIDAELocal Name :Kurehi hikaaOrder :PerciformesSize :Max. 12 cmSpecimen :MRS/0264/88

**Distinctive Characters:** Dorsal fin with 9 spines and 11 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 12 rays. Body depth 2.6-3.1 in standard length. Head naked. No median predorsal scales. Fifth to sixth dorsal soft rays usually longest. Caudal fin rounded.

**Colour:** Females orange with white spots, and a large black and blue area on belly. Males dull orange-red with green and purple stripes on head, becoming blotches posteriorly. Orange area under soft dorsal.

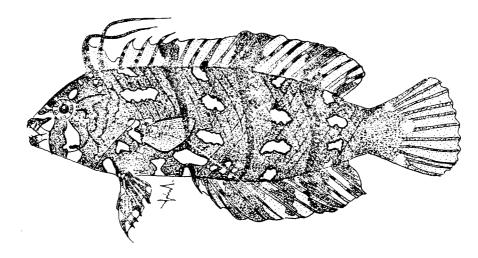
**Habitat and Biology:** Commonly found in areas of broken coral mixed with sand or rubble. Feeds on benthic invertebrates.

**Distribution:** Western Indian Ocean.

**Remarks:** *Macropharyngodon bipartitus* is a small, and at first sight a rather dull-looking wrasse. Close inspection, however, reveals that both males and females have the most beautifully intricate colour patterns. A popular aquarium fish.

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# Novaculichthys taeniourus (Lacepède, 1801)



English Name :Rockmover wrasseFamily :LABRIDAELocal Name :Gaa furolhaa hikaaOrder :PerciformesSize :Max. 25 cmSpecimen :MRS/0390/92

**Distinctive Characters:** Dorsal fin with 9 spines and 12-13 rays. Anal fin with 3 spines and 12-13 rays. Pectoral fin with 13 rays. Body depth 2.8-3.1 in standard length. The first two dorsal spines very flexible (very prolonged in juveniles). Caudal fin rounded.

**Colour:** Adults brown with grey head and a white bar across caudal fin base. Centres of scales yellowish. A large red area on abdomen. Juveniles mottled green or brown and white.

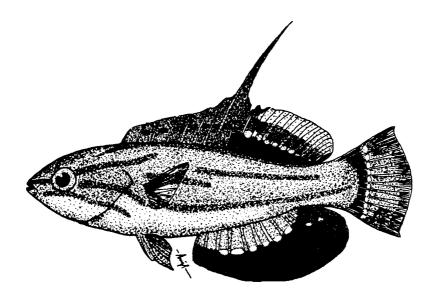
**Habitat and Biology:** Found primarily on shallow weedy or rubbly areas at depths of from a few to at least 25 m. Feeds on a wide range of benthic invertebrates, including molluscs and crustaceans.

**Distribution:** Indo-Pacific.

**Remarks:** *Novaculichthys taeniourus* is well-known for its ability to overturn large rocks to prey upon the animals beneath. Juveniles mimic drifting clumps of algae. A popular aquarium fish.

ئۇ ئرىزارىيە كەرىمىزىرىيا

### Paracheilinus mccoskeri Randall and Harmelin-Vivien, 1977



English Name :Mccosker's wrasseFamily :LABRIDAELocal Name :Faiy mini hikaaOrder :PerciformesSize :Max. 7.5 cmSpecimen :MRS/0358/91

**Distinctive Characters:** Dorsal fin with 9 spines and 11 rays. The first dorsal rays greatly extended in mature males. Lateral lines in two parts. Pupil divided into two equal adjoining parts.

**Colour:** Ground colour orange. Females with faint, broken blue horizontal lines on sides. Males with distinct broken blue lines and deep red on inner part of soft dorsal and outer part of anal fins.

**Habitat and Biology:** Usually seen on rubble bottoms at depths greater than 20 m. Forms aggregations. Feeds on zooplankton.

**Distribution:** Indo-West Pacific.

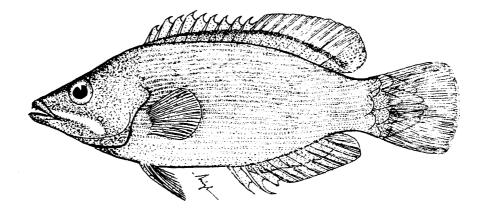
**Remarks:** The male of *Paracheilinus mccoskeri* is for its size one of the most beautiful of all Maldivian reef fishes. The males maintain harems of several females, which they 'flash' with their spectacular dorsal fins. A very popular aquarium fish.

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### Pseudocheilinus evanidus Jenkins, 1901



English Name:Disappearing wrasseFamily:LABRIDAELocal Name:Miyakan hudhu hikaaOrder:PerciformesSize:Max. 8 cmSpecimen:MRS/0357/91

**Distinctive Characters:** Dorsal fin with 9 spines and 11 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 14 rays. Body depth 2.7 – 3.3 in standard length. Preopercular margin smooth. Cornea divided to form a double pupil.

**Colour:** Red with numerous fine pale longitudinal lines. White stripes under eye. Caudal fin green with a small black spot at upper base.

**Habitat and Biology:** A shy and secretive species. Common on reef slope. Feeds on small crustaceans and other animals.

Distribution: Indo-Pacific.

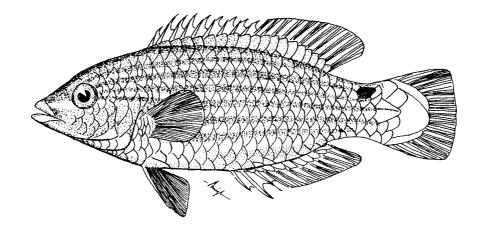
**Remarks:** *Pseudocheilinus evanidus* is a secretive species, hence the English name, disappearing wrasse. Further study may result in its being placed in a monotypic family.

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وَرَقَ هَمُنَرِوَهِ ثَهُمُ مِهُودِ الْ رَمُنَا وَهُذَا الْ وَهَا رَمُنَا وَهُو هُودُ وَ هَمَ الْحَرَا مُرَا مُرَّا وَهُو وَلَا مُرَا الْ وَهُمَا وَهُودُ وَلَا مُرَا مُرَا الْ وَهُمَا وَلَا اللّهُ وَلَا يَكُودُ وَلَا اللّهُ وَلَا يَكُودُ وَلَا يَكُودُ وَلَا يَعُرَا وَلَا اللّهُ وَلَا يَكُودُ وَلَا يَكُودُ وَلَا يَعْرَا وَلَا يَكُودُ وَلَا يَعْرَا وَلَا يَكُودُ وَلَا يَعْرَا وَلَا اللّهُ وَلَا يَعْرَا وَلَا اللّهُ وَلَا يَعْرَا وَلَا يَعْرَا وَلَا يَعْرَا وَلَا يَعْرَا وَلَا وَلَا يَعْرَا وَلَا يَعْرَا وَلَا يَعْرَا وَلَا يَعْرَا وَلَا عَلَى مُعْلَا مُنْ وَلَا يَعْرَا وَلَا عَلَى مُعْلِقًا وَلَا عَلَيْ وَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَا مُعْلَى وَلَا عَلَا مُعْلِقًا وَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَا عَلَا مُعْلَى وَلَا عَلَا عَلَا عَلَا عَلَا مُعْلَى وَلَا عَلَى مُعْلَى وَلِي مُعْلِقًا وَلَا عَلَا عَلَا عَلَا عَلَا عَلَا عَلَا عَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَا عَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَا عَلَى مُعْلِقًا وَلَا عَلَى مُعْلِقًا وَلِمُ عَلَى مُعْلِقًا وَلَا عَلَا عَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَا عَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَى مُعْلِقًا وَلَا عَلَا عَلَى مُعْلِقًا وَلِمُ عَلَا عَلَى مُعْلِقًا وَلَا عَلَى مُعْلِقًا عَلَا عَلَى مُعْلِقًا عَلَا عَلَا

### Pseudocheilinus hexataenia (Bleeker, 1857)



English Name :Sixstripe wrasseFamily :LABRIDAELocal Name :Harongu hikaaOrder :PerciformesSize :Max. 7.5 cmSpecimen :MRS/0205/88

**Distinctive Characters:** Dorsal fin with 9 spines and 11 rays. Anal fin with 3 spines and 9 rays. Pectoral fin with 15-17 rays. Body depth 2.4-2.7 in standard length. Preopercle with a membranous flap at angle, the margin above it is usually finely serrated for about half of its length.

**Colour:** Reddish with alternate yellow-orange and purple-blue stripes. Caudal fin green. Small black spot on upper caudal base.

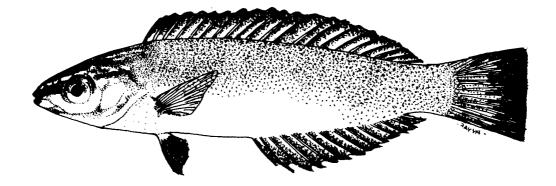
Habitat and Biology: Hides among corals and rocks on reef edge and slope. Feeds on small crustaceans.

Distribution: Indo-Pacific.

**Remarks:** *Pseudocheilinus hexataenia* is a very shy and secretive species and tends to stay hidden in the reef crevices. As a result it is not seen very often by snorkellers and divers, although it is a fairly abundant coral reef species.

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### Pseudocoris yamashiroi (Schmidt, 1930)



English Name: Redspot wrasse Family: LABRIDAE

Local Name: Raiy thiki hikaa Order: Perciformes

Size: Common to 15 cm; max. 18 cm Specimen: MRS/P0394/92

**Distinctive Characters:** Dorsal fin with 9 spines and 12 rays. Anal fin with 3 spines and 12 rays. Pectoral fin with 13 rays. Body depth 3.5-4.1 in standard length. First two dorsal spines close together, prolonged in males. Caudal fin slightly emarginate. Pelvic fin short. Preopercle with a membranous flap at angle, the margin above it usually finely serrate for about half its length.

**Colour:** Females lavender-grey. The centres of scales darker than edges. Head behind the eye partially blue green. A large orange red spot covering pectoral fin base. Males light blue-green on dorsal three fifths of body, densely spotted with vertically elongated small black spots. In Maldivian specimens, posterior part of back appears orange.

**Habitat and Biology:** Occurs in aggregations usually on outer reef slopes. The females greatly outnumber the males. Feeds on zooplankton.

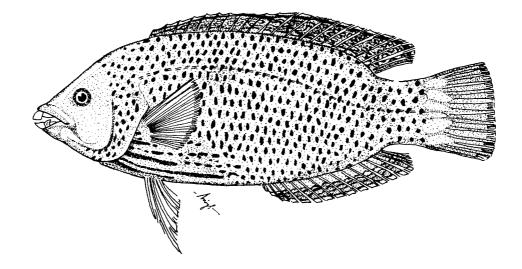
Distribution: Maldives to Western Pacific.

**Remarks:** *Pseudocoris yamashiroi* is common on the deeper part of outer reef slopes. Despite this, and its active swimming behaviour it is easily overlooked because of its relatively small size and rather dull colouration. Maldivian males differ from those in the Western Pacific in having orange, rather than green, on the posterior part of the back.

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# Pseudodax molucannus (Valenciennes, 1839)



English Name :Chistletooth wrasseFamily :LABRIDAELocal Name :Dhaiy thoonu hikaaOrder :PerciformesSize :Max. 25 cmSpecimen :MRS/0383/92

**Distinctive Characters:** Dorsal fin with 11 spines and 12 rays. Anal fin with 3 spines and 14 rays. Pectoral fin with 15 rays. Body depth 2.4-2.9 in standard length. A pair of spatulate incisiform teeth at the front of each jaw.

**Colour:** Dark reddish brown. Juveniles with one dorsal and one ventral blue stripe. Adults with neon blue margins to dorsal, caudal and anal fins. Pale streak across upper lip.

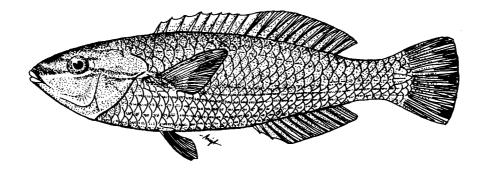
**Habitat and Biology:** Common on rock and coral reefs to a depth of 60 m. Feeds on encrusting organisms. Juveniles have been observed cleaning other fishes.

Distribution: Indo-Pacific.

**Remarks:** *Pseudodax molucannus* is the only species of the genus. It can easily be distinguished from other wrasses by its large spatulate incisiform teeth.

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# Stethojulis strigiventer (Bennett, 1832)



English Name:Stripebelly wrasseFamily:LABRIDAELocal Name:Huifathu hikaaOrder:PerciformesSize:Max. 15 cmSpecimen:MRS/0263/88

**Distinctive Characters:** Dorsal fin with 9 spines and 11 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 15 (rarely 14) rays. Body depth 3.5-3.9 in standard length. Scales on chest.

**Colour:** Males greenish to yellowish brown dorsally, white ventrally. Four longitudinal blue lines, only one of which extends full length of head and body. A broad red band from pectoral fin base to gill opening, and a small black spot at upper end of gill opening. Females greenish to brownish grey dorsally, white ventrally, many fine longitudinal lines and a small blue edged dark spot at caudal base.

**Habitat and Biology:** Usually found on algal flats, seagrass beds or on sandy areas around reefs. Feeds on benthic invertebrates.

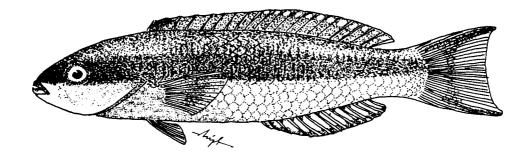
**Distribution:** Indo-Pacific.

**Remarks:** The terminal males more colourful and very different from initial phase. *S. renardi* (Bleeker) is a synonym based on the terminal male phase of *Stethojulis strigiventer*.

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### Thalassoma amblycephalum (Bennett, 1856)



English Name :Bluntheaded wrasseFamily :LABRIDAELocal Name :Baiypen hikaaOrder :PerciformesSize :Max. 17 cmSpecimen :MRS/0105/87

**Distinctive Characters:** Dorsal fin with 8 spines and 13 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 15 rays. Body depth 3.8-4.2 in standard length. No scales dorsally on opercle. Caudal fin truncate to slightly emarginate, becoming lunate in large males.

**Colour:** Initial phase with broad black stripe through eye to upper caudal. Green above, cream below. Caudal margins broadly orange. Terminal males purplish. Head blue. Nape yellow. Two fine oblique gold lines on cheek.

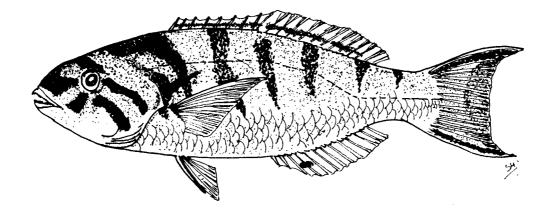
**Habitat and Biology:** Occurs in small aggregations over shallow reefs to depths of 15 m. Feeds on zooplankton well above the substrate.

**Distribution:** Indo-Pacific.

**Remarks:** *T. melanochir* (Bleeker) is a synonym based on the terminal male of *Thalassoma amblycephalum*. Initial phase fish far more numerous than terminal males.

ם כל הל תרע

### Thalassoma hardwicke (Bennett, 1828)



English Name :Sixbar wrasseFamily :LABRIDAELocal Name :Kaashi hikaaOrder :PerciformesSize :Max. 18 cmSpecimen :MRS/0005/86

**Distinctive Characters:** Dorsal fin with 8 spines and 13 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 16 rays. Body depth 2.9-3.2 in standard length. Caudal fin truncate in juveniles to emarginate in adults.

**Colour:** Green with six black bars dorsally, shading to pale blue ventrally. Broad pink bands on head and a pink lateral stripe posteriorly on body. Females similar but the bars not as black and lacking the ventral blue colour and pink stripe.

**Habitat and Biology:** A common shallow water reef species to depths of 25 m. Mainly a solitary swimming species. Omnivorous in habit.

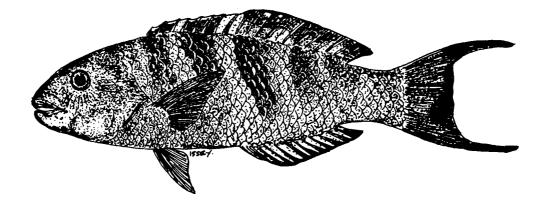
**Distribution:** Indo-Pacific.

**Remarks:** *T. schwanefeldii* (Bleeker) is a synonym of *Thalassoma hardwicke*. *T. hardwicke* is one of the most common wrasses on Maldivian reefs. It readily accepts bread from divers and snorkellers.

را مامور را

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### Thalassoma jansenii (Bleeker, 1856)



English Name:Jansen's wrasseFamily:LABRIDAELocal Name:Dhon kaashi hikaaOrder:PerciformesSize:Max. 20 cmSpecimen:MRS/0273/88

**Distinctive Characters:** Dorsal fin with 8 spines and 13 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 15-16 (usually 15) rays. Body depth 3.3-3.9 in standard length. Caudal fin truncate in juveniles to slightly emarginate in initial phase and very lunate in large terminal males.

**Colour:** Ground colour cream, varying from yellow above to white below. Six broad rhomboidal blackish bands dorsally.

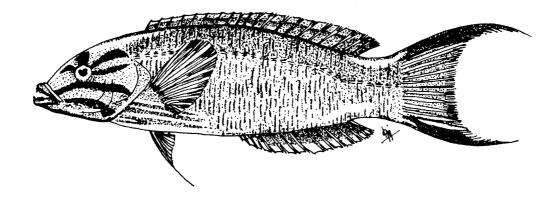
Habitat and Biology: Common on reef flats at depths of a metre or less.

**Distribution:** Maldives to Indonesia.

**Remarks:** *Thalassoma jansenii* is not particularly common in the Maldives. Unlike many other wrasses of the genus it maintains the same basic colour pattern throughout its life. However, it has a different colour form in the Western Pacific.

ב מעלת על איני בעייל איני

### Thalassoma lunare (Linnaeus, 1758)



English Name :Moon wrasseFamily :LABRIDAELocal Name :Nigoo dhigu hikaaOrder :PerciformesSize :Max. 27 cmSpecimen :MRS/0272/88

**Distinctive Characters:** Dorsal fin with 8 spines and 13 rays. Anal fin with 3 spines and 11 rays. Pectoral fin with 15 rays. Body depth 3.1-3.7 in standard length. Caudal fin varying from truncate in juveniles to lunate with filamentous lobes in large males.

**Colour:** Females dark green, with fine red stripes on sides and red bands on chest and head. Yellow crescent on caudal fin. Males similar but background colour more blue than green.

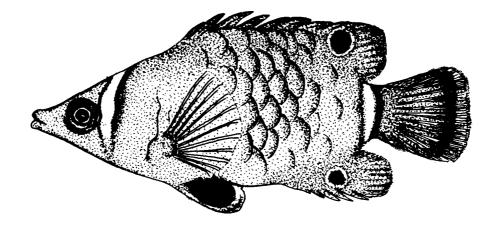
**Habitat and Biology:** Common on coral and rocky reefs to depths of 20 m. Feeds on benthic invertebrates, small fishes and fish eggs.

**Distribution:** Indo-Pacific.

**Remarks:** *Thalassoma lunare* is a very common and wide-ranging species in Maldivian reefs. It is very bold and will readily approach divers and snorkellers if food is being handed out.

ית בבת בתע ת

### Wetmorella nigropinnata (Seale, 1901)



English Name:Sharpnose cave wrasseFamily:LABRIDAELocal Name:Hohalha hikaaOrder:PerciformesSize:Max. 8 cmSpecimen:MRS/0271/88

**Distinctive Characters:** Dorsal fin with 9 spines and 10 rays. Anal fin with 3 spines and 8 rays. Pectoral fin with 12 rays. Body depth 2.6-3.2 in standard length. Lateral line interrupted.

**Colour:** Ground colour brown. A dark edged yellow bar on head and behind and adjacent to eye and a second one at front of caudal peduncle. Juveniles, in addition, with 2 broad pale bars on body. Black spots on fins and ventrally on abdomen.

**Habitat and Biology:** Commonly found on caves and crevices to depths of 40 m.

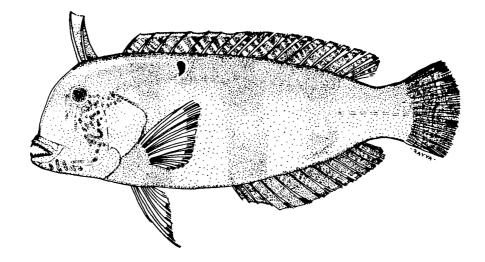
Distribution: Indo-Pacific.

**Remarks:** Wetmorella nigropinnata is rarely seen by divers due to its cryptic habits. W. philippina Fowler and Bean, W. ocellata Schultz and Marshall, and W. triocellata Schultz and Marshall are synonyms of Wetmorella nigropinnata.

ورور

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# Xyrichthys pavo Valenciennes, 1840



English Name:Peacock wrasseFamily:LABRIDAELocal Name:Saamaraa hikaaOrder:PerciformesSize:Max. 35 cmSpecimen:MRS/0436/94

**Distinctive Characters:** First dorsal fin with 2 spines. Second with 7 spines and 12 rays. Anal fin with 3 spines and 12 rays. Pectoral rays 12. Body depth 2.4-2.7 (of juveniles 2.8-3.3) in standard length. Dorsal profile of head of adults very steep. First 2 dorsal spines separate, originating over posterior edge of eye, flexible and prolonged (greatly elongate in juveniles). Caudal fin small and rounded.

**Colour:** Adults grey dorsally, yellowish white ventrally with 3 indistinct dark bars on body and 1 on caudal fin base. A small black spot rimmed with light blue, just above eighth lateral line scale. Juveniles with dark bars more evident than adults and may have 2 ocellated black spots on soft dorsal.

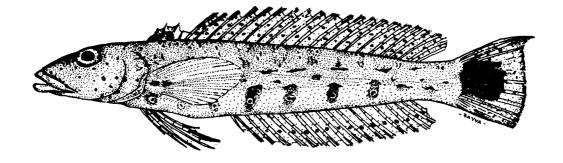
**Habitat and Biology:** Found on sandy substratum at depths of 7-40 m. Feeds mostly on hard shelled prey including molluscs and crustaceans.

**Distribution:** Indo-Pacific.

**Remarks:** *Xyrichthys pavo* lives on open sandy areas and dives into sand with approach of danger. Juveniles extend elongate first dorsal fin forward over head and mimic a drifting leaf.

سرو تررا

## Parapercis hexophthalma (Ehrenberg, 1829)



English Name: Spot-tail sandperch Family: PINGUIPEDIDAE

Local Name :Lah nigoo alathanduOrder :PerciformesSize :Common to 18 cm; max. 26 cmSpecimen :MRS/0158/87

**Distinctive Characters:** Dorsal fin with 5 spines and 21-22 rays. Anal fin with 1 spine and 17 rays. Pectoral rays with 17-18 rays. 8 canines at front of lower jaw. Membrane from last dorsal spine joins first dorsal ray opposite tip of spine. Snout narrow, the lower jaw length greater than its width.

**Colour:** Light greenish-brown dorsally, speckled with brown; white ventrally. A horizontal row of small yellow-edged black spots on lower side. A large black spot in caudal fin with a white area behind it. Females with small black spots on head, males with diagonal dark brown lines on cheek.

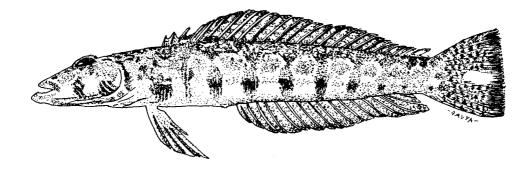
**Habitat and Biology:** Usually found in coral reefs and sandy areas near reefs and rocky outcrops, from the shoreline to moderate depths over the continental shelf. Carnivorous.

**Distribution:** Indo-West Pacific.

**Remarks:** *Parapercis hexophthalma* is a fairly common inhabitant on Maldivian reef flats. It is usually seen propped up on its pelvic fins. *P. polyphthalma* is a synonym based on the female form.

# 

# Parapercis millepunctata (Günther, 1806)



English Name: Brown-spotted sandperch Family: PINGUIPEDIDAE

Local Name :Mushi thiki alathanduOrder :PerciformesSize :Max. 20 cmSpecimen :MRS/0279/88

**Distinctive Characters:** Dorsal fin with 4 spines and 21 rays. Anal fin with 1 spine and 17 rays. Pectoral rays with 17 rays. 4 canines at front of lower jaw. Palatine teeth absent. Second and third dorsal spine longest.

**Colour:** Body whitish with 4 close-set longitudinal series of brown spots, those of lower row largest and vertically elongate, covering all of lower side. A white spot midposteriorly in caudal fin. Males with thin diagonal pale lines on cheek.

**Habitat and Biology:** Usually found on patches of rubble or pavement between corals. Feeds on benthic crustaceans and occasionally on fish.

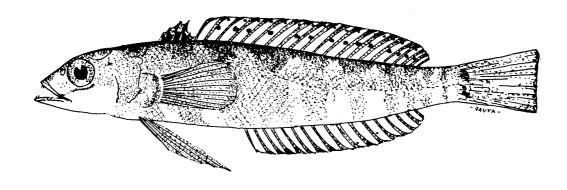
**Distribution:** Maldives to Central Pacific.

**Remarks:** *Parapercis millepunctata* is the most common species of the genus at many localities. It is usually identified as *P. cephalopunctata* (Seale) but *P. millepunctata* is the valid earlier name.

ورور رخور

وَرُی هَمَاسِوَمٍ تَمَمِهُ وَدُور لِ رَمُمَامُهُ الْ وَلَمَاسِرَمُرُونَ هَسِوَرُورُومُ تَمَمُ مَرَدُورِ ا رَمُمَامُهُ مُنَا 17 وَلَمَاسِرَمُرُونُ وَهُوَمُونُ رَحُرُهُ لِللَّهُ وَلِا رَدُّتُ مِرْوَدُ مُرَادُورُ مِرْدُ لِيهُ دِوِيْسِوسُرُو دُونُو دُرْدُو دُرْدُور دَرُورُ مِنْ رُدُر وَسُورٌ "وَرَحِل دَوَهِ اللَّهُ لِيهُ مَرْدُو لِعَوْلَكُمُ لِلْمُورُدُونُ وَرَمُونُ وَرُدُودُ وَرُدُورُ مُرْدُورُ مِنْ لِللَّهِ وَلَهُ فَالْمُورُدُ وَقِيْ وَ

### Parapercis schauinslandi (Steindachner, 1900)



English Name: Red-spotted sandperch Family: PINGUIPEDIDAE

Local Name :Raiy thiki alathanduOrder :PerciformesSize :Max. 14 cmSpecimen :MRS/0276/88

**Distinctive Characters:** Dorsal fin with 5 spines and 21 rays. Anal fin with 1 spine and 17 rays. Pectoral fin with 16 rays. 6 canines at front of lower jaw. Palatine teeth absent. Middle dorsal spine longest. Caudal fin emarginate.

**Colour:** White with 2 longitudinal series of squarish red spots on body, 1 along back (these spots often faint, but may contain a few dark red spots) and the other mid-lateral. 2 red lines at base of pectoral fin. Spinous portion of dorsal fin red with a large black spot in centre. Caudal fin pale with 2 red spots.

**Habitat and Biology:** Usually found on rubble near reefs at depths greater than 20 m. Carnivorous, feeding on crustaceans and small fish.

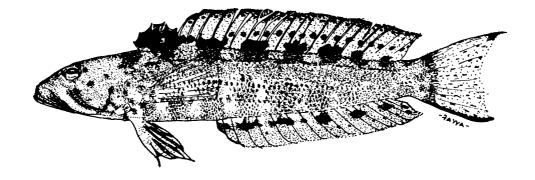
**Distribution:** Indo-Pacific.

**Remarks:** Parapercis schauinslandi is a moderately deep dwelling species. The colour pattern of this species slightly varies with major localities.

# مُرْمُور رُخُرُور فَ

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# Parapercis signata Randall, 1984



English Name: Blackflag sandperch Family: PINGUIPEDIDAE

Local Name :Kalhu kothari alathanduOrder :PerciformesSize :Max. 13 cmSpecimen :MRS/0278/88

**Distinctive Characters:** Dorsal fin with 5 spines and 21 rays. Anal fin with 1 spine and 14-22 rays. Pelvic fins well separated.

**Colour:** Spinous portion black with a deep red margin. A series of 8 short dusky bars on back, six of which are linked to black spots basically in soft dorsal fin. A series of 9 broad orange bars on lower side.

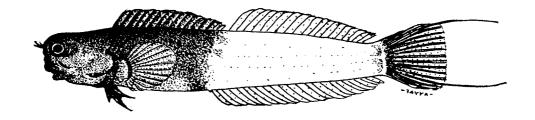
**Habitat and Biology:** Common on lower reef slopes and sandy areas at depths of 30-35 m. Feeds on small shrimps and fishes.

**Distribution:** Maldives.

**Remarks:** *Parapercis signata*, is not commonly seen by divers due to its rather deep dwelling habit. Many species of *Parapercis* shows at least some colour difference with sex. The sandperches were previously recorded under the family Parapercidae or more often Mugiloididae (in old literature).

# עצעם את הלפת ב

# Ecsenius bicolor (Day, 1888)



English Name :Bicolor blennyFamily :BLENNIIDAELocal Name :Dheburi dhekula venfunnaOrder :PerciformesSize :Max. 11 cmSpecimen :MRS/0249/89

**Distinctive Characters:** Dorsal fin with 12 spines and 16-18 rays. Anal fin with 2 spines and 18-20 rays. Caudal fin segmented with 14 rays. A cirrus from both anterior and posterior rim of nostril.

Colour: Variable. The common pattern is bluish black on head and another half of body, yellow behind.

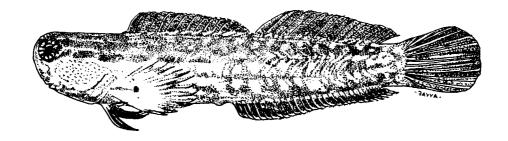
Habitat and Biology: Commonly found resting on corals and rocks in crevices at depths upto 21 m.

**Distribution:** Central-Pacific to Maldives.

**Remarks:** The multiple colour phases (3 phases) of *Ecsenius bicolor*, makes it a favourite with aquarists. The blennies are a large family (over 300 species) of small, agile, bottom-dwelling fishes. The majority of tropical blennies are herbivores. Those for which the reproductive habits are known lay demersal eggs, which are guarded by male parent.

# 

### Ecsenius minutus Klausewitz, 1963



English Name :Maldives blennyFamily :BLENNIIDAELocal Name :Dhivehi venfunnaOrder :PerciformesSize :Max. 5 cmSpecimen :MRS/0248/88

**Distinctive Characters:** Dorsal fin with 12-13 spines and 13-14 rays. Anal fin with 2 spines and 15-16 rays. Pectoral rays 12-14. Segmented caudal rays 13. Snout over-hanging mouth.

**Colour:** Light brown with diffuse white spots posteriorly and dark blotches anteriorly. Cheek with yellow dots. Dark brown curving line on opercle. Eye with white ring and radiating spokes.

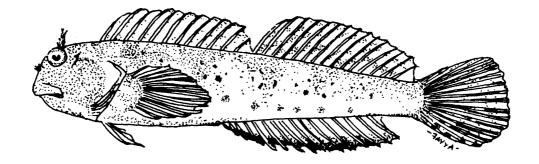
**Habitat and Biology:** A common reef species. Feed on filamentous algae, and the tiny animals associated with it.

**Distribution:** Maldives.

**Remarks:** *Ecsenius minutus* is one of the very few fishes known only from the Maldives. As the scientific name suggests this is a small species, which is believed to reach less than about 5 cm in total length.

ورؤر ؤشروش

## Entomacrodus striatus (Quoy and Gaimard, 1836)



English Name : Pearly rockskipperFamily : BLENNIIDAELocal Name : Haluvi venfunnaOrder : PerciformesSize : Max. 9 cmSpecimen : MRS/0250/88

**Distinctive Characters:** Dorsal fin deeply incised with 12-14 spines and 14-16 rays. Anal fin with 2 spines and 15-18 rays. Margin of upper lip usually fully crenulate. Nape with one cirrus on each side (occasionally absent). Supraorbital cirrus with many branches.

**Colour:** Whitish with numerous small irregular black spots on body which may group to form about 4 indistinct large blotches on upper side. An irregular black line behind the eye.

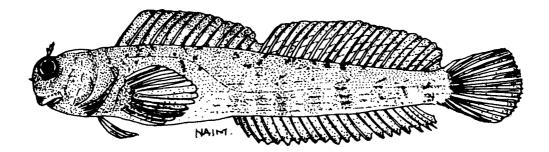
**Habitat and Biology:** Found mostly in the shallow inter-tidal zones of both protected lagoons and wave-swept outer reefs. It feeds on algae.

**Distribution:** Indo-Pacific.

**Remarks:** *Entomacrodus striatus* is the most common and wide spread species of the genus. It is an active species, as the name rockskipper suggests. The blennies tend to take refuge in small holes in the reef into which they back tail first with the approach of danger.

# رُوْوِ وَسُرِيْ سُرِسُ

# Istiblennius lineatus (Valenciennes, 1836)



English Name :Lined rockskipperFamily :BLENNIIDAELocal Name :Rongudhemi venfunnaOrder :PerciformesSize :Max. 14 cmSpecimen :MRS/0252/88

**Distinctive Characters:** Dorsal fin with 13 spines and 21-25 rays. Anal fin with 2 spines and 22-24 rays. Pectoral rays 14. Pelvic fin with 1 spine and 3 rays. Margin of upper lip crenulate, of lower lip smooth. Males with a crest on head. Cirrus over eye short and triangle, at right angle to surface of eye, finged on edges. No cirri on nape.

**Colour:** Pale grey with dark brown longitudinal lines, some interconnecting, breaking into short lines and spots on caudal peduncle. Some vertical to slightly diagonal dark lines on cheek and behind the eye. 6 pairs of small dark brown spots along base of dorsal fin; dorsal fin with diagonal whitish lines.

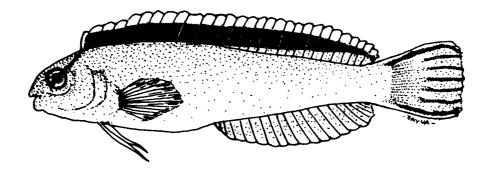
Habitat and Biology: Occurs along rocky shores, often in tide pools.

**Distribution:** Maldives to Polynesia.

**Remarks:** *Istiblennius lineatus* is only of several relatively small blenny species that inhabit shallow reef flats in the Maldives. Some blennies are adapted to the surf-swept intertidal zones. These blennies are able to leap from one pool to another.

# מנת בער ב לית ב ית מנת ית ית ית

### Meiacanthus smithi (Klausewitz, 1962)



English Name:Smith's sabretooth blennyFamily:BLENNIIDAELocal Name:Dhaiythoonu funnaOrder:PerciformesSize:Max. 8 cmSpecimen:MRS/0258/88

**Distinctive Characters:** Dorsal fin with 3-5 spines and 24-26 soft rays. Anal fin with 2 spines and 15-17 soft rays. Pectoral fin with 13-15 rays. Lateral line present. Middle rays of caudal fin longest.

**Colour:** Pale greeny cream. Black bar from eye to origin of dorsal fin, which itself has a thick black stripe along its length.

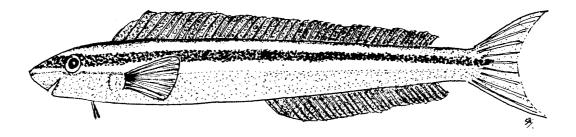
Habitat and Biology: Thought to feed on small worms and crustaceans.

**Distribution:** Maldives to Indonesia.

**Remarks:** *Meiacanthus smithi* was first discovered by scientists during Dr Hans Hass' 'Xarifa' expedition to the Maldives. Blennies of the genus *Meiacanthus* are unique among fishes in having poison glands associated with a greatly enlarged and grooved pair of lower canine teeth.

#### ת 6 ככד ד 6 ת בתם סת דעתת

# Plagiotremus rhinorhynchos (Bleeker, 1852)



English Name:Bluestriped fangblennyFamily:BLENNIIDAELocal Name:Fansooru masOrder:PerciformesSize:Max. 11 cmSpecimen:MRS/0030/86

**Distinctive Characters:** Dorsal fin with 10-12 spines and 32-36 rays. Anal fin with 2 spines and 29-33 rays. Pectoral rays 11-13. Segmented caudal rays 11. Body depth 6.6-8.0 in standard length. Snout conical. Mouth ventral. Lower jaw with a pair of long curved canines. Dorsal fin originates above hind margin of preopercle. Pelvic fin small, usually longer than eye diameter. Caudal fin emarginate.

**Colour:** Variable. Dark brown, yellowish brown, or yellow with two narrow bright blue stripes. Juveniles have a single upper blue stripe. Median fins yellowish in both forms.

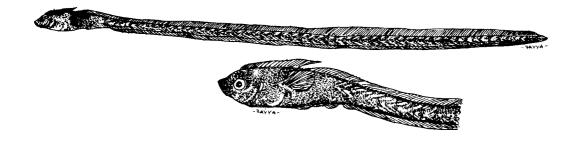
**Habitat and Biology:** Inhabits reef edge and slope. Feeds by rapid attacks on other fishes, removing dermal tissue, mucus, and sometimes scales.

Distribution: Indo-Pacific except Hawaii.

**Remarks:** *Plagiotremus rhinorhynchos*, in the blue black-stripe phase mimics the cleaner wrasse, *Labroides dimidiatus*. In the yellow phase it approximates the colour of common, harmless scalefin anthias, *Pseudanthias squamipinnis*. In this disguise it get closer enough to attack other fishes. Previously recorded under the genus *Runula*.

# و شرمتو بخرو ک

### Xiphasia matsubarai Okada and Suzuki, 1952



English Name :Japanese snakeblennyFamily :BLENNIIDAELocal Name :Harufa funnaOrder :PerciformesSize :Max. 30 cmSpecimen :MRS/P0334/88

**Distinctive Characters:** Extremely long and thin. Dorsal fin with 11 spines and 99-104 rays. Anal fin with 2 spines and 97-104 rays. Pectoral fin with 10-11 rays. Pelvic fin with 1 spine and 3 rays.

**Colour:** Brown. Front part of anal fin white distally.

Habitat and Biology: Lives in tubes on sandy bottoms.

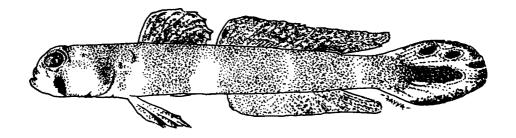
**Distribution:** Indo-Pacific.

**Remarks:** *Xiphasia matsubarai* is a very unusual blenny, superficially more like an eel than a blenny. The specimen on which this record is based was caught by hand net in Male harbour in July 1988.

# رجري وشرش

ود وَمَرَهُ وَرَسُ دَوْسِ وَجِهُ وَهُ وَرَدُو مِورَدُرَيْ وَرَدُ وَدِ وَوَرَسُ مَا رَدُوْ وَرَدُوْسُورُو وَهُ وَوَ وَهُ وَهُ وَمُ وَمِ وَمُرَسُ وَرَدُوْسُ وَرَدُوْسُ وَرَدُوْسُ وَرَدُوْسُ وَمُوسُورُو وَهُ وَمُورُو وَهُ وَمُورُو وَمُورُو وَمُورُو وَمُورُو وَهُ وَمُورُو و وَمُورُو وَمُورُو وَمُورُو وَمُورُو وَمُورُو وَمُورُو وَمُورُو و

### Amblyeleotris aurora Polunin and Lubbock, 1977



English Name : Dawn gobyFamily : GOBIIDAELocal Name : Dingaa funnaOrder : PerciformesSize : Max. 11 cmSpecimen : MRS/0353/91

**Distinctive Characters:** First dorsal fin with 6 spines. Second dorsal fin with 1 spine and 13 rays. Anal fin with 1 spine and 14 rays. Pectoral fin with 18-19 rays. Breast and pectoral fin base scaled. Pelvic fin connected at base only. Middle of nape naked, sides scaled forward to above end of operculum.

**Colour:** White with five light red bars and a bright red diagonal band on cheek. Caudal fin yellow with 3-9 large red spots.

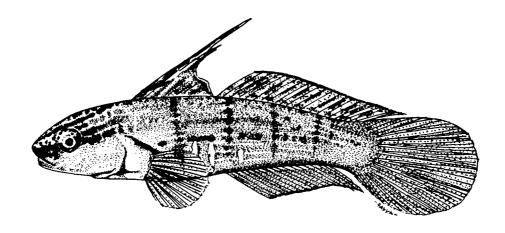
**Habitat and Biology:** Inhabits mixed sand and rubble bottoms at depths between 5-15 m. Shares a burrow with a snapping shirmp.

**Distribution:** Known only from islands of Western Indian Ocean, including Seychelles and Maldives.

**Remarks:** *Amblyeleotris aurora*, does not dig a hole for itself if there is a snapping shrimp already occupying one nearby, but instead seeks contact with the shrimp. The goby makes sure that its resting position is so arranged that its tail always remain in contact with its partner.

٤ سرگافي شرس د سرگافي شرس

### Amblygobius semicintus (Bennett, 1883)



English Name :Half barred gobyFamily :GOBIIDAELocal Name :Baigalhi funnaOrder :PerciformesSize :Common to 9 cm; max. 15 cmSpecimen :MRS/0288/88

**Distinctive Characters:** First dorsal fin with 6 spines, second dorsal fin with 1 spine and 13-15 rays. Anal fin with 1 spine and 12-16 rays. Pectoral fin with 18-22 rays. Gill arch with finger like projections. 10 - 15 short vertical papillae rows under eye. Operculum with several scales dorsally.

**Colour:** Brown with pale blue-green spots and dull red spots on dorsal fins and top of head. A dark spot above gill opening and one at upper caudal base. Females with pale bars on abdomen. Males often with pale spots on anal fin.

**Habitat and Biology:** Commonly found in sheltered, shallow lagoons. Excavates its own burrow. Usually in pairs. Feeds on filamentous algae, small crustaceans and other tiny animals.

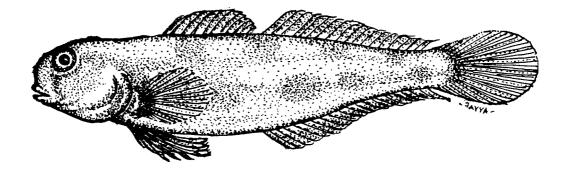
**Distribution:** West Indian Ocean.

**Remarks:** *Amblygobius semicinctus* is very common in the sheltered lagoons of Maldivian islands and ring reefs. The family Gobiidae is the largest family of marine fishes in the world, with about 220 genera and 1 600 species, of which about 160 genera and 1 200 species inhabit the Indo-Pacific region.

ם תז תציב ציתת

وَرَى مُوَرِّدُ وَمُوَمَّرُ وَرَى وَمُوَ وَرَى وَمُمَارِهُم مِنْ وَمُوْرُ وَرَى وَمُمَارِهُم مِنْ وَمُورُورُ وَوَهُورُ وَرَهُ وَمُرَّدُورُ وَمُورُورُورُ وَمُرَّدُورُ وَمُورُورُورُ وَمُرَّدُورُ وَمُرَدُورُ وَمُورُ وَمُورُورُ وَمُرَدُورُ وَمُورُورُ وَمُرَدُورُ وَمُرَدُورُ وَمُورُورُ وَمُورُورُ وَمُورُورُ وَمُورُورُ وَمُرَدُورُ وَمُرَدُورُ وَمُرَدُورُ وَمُرَدُورُ وَمُرَدُورُ وَمُرَدُورُ وَمُورُ وَمُرَدُورُ وَمُرَدُورُ وَمُرَدُورُ وَمُرَدُورُ وَمُورُورُ وَمُورُورُ وَمُرَدُورُ وَمُورُ وَمُورُ وَمُورُورُ وَمُورُورُ ورُورُ وَمُورُورُ وَمُورُورُ وَمُورُ وَمُورُورُ وَمُورُورُورُ وَمُورُورُورُ وَمُورُورُ وَمُورُورُ وَمُورُورُ وَمُورُورُورُ وَمُورُورُ وَمُورُورُ وَمُورُورُ وَمُورُورُ ورُورُ وَمُورُورُ وَمُورُورُ وَمُورُورُونُورُ وَمُورُورُ وَمُو

# Gnatholepis anjerensis (Bleeker, 1850)



English Name : Weeping sand gobyFamily : GOBIIDAELocal Name : Veli funnaOrder : PerciformesSize : Max. 8 cmSpecimen : MRS/0292/88

**Distinctive Characters:** First dorsal fin with 6 spines. Second dorsal fin with 1 spine and 11 rays. Anal fin with 1 spine and 11 rays. Pectoral fin with 15-17 rays. Mouth horizontal and interior. Lower jaw not projecting. Snout blunt. Cheek with large scales.

Colour: A prominent black bar extending down from eyes.

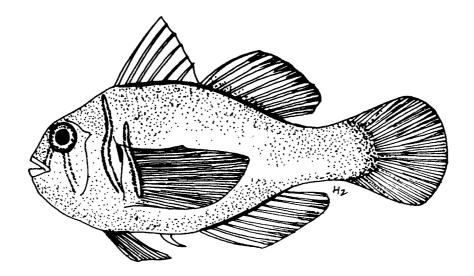
**Habitat and Biology:** Common from shallow water down to 25 m. Usually seen sitting on sandy bottoms at the base of coral heads.

Distribution: Indo-West Pacific (uncertain).

**Remarks:** *Gnatholepis anjerensis* is very common in the Maldives, but easily overlooked because of its small size and cryptic colouration. The genus *Gnatholepsis* is in need of revision, so there is considerable confusion over the correct name of this species, and its true distribution.

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### Gobiodon citrinus (Rüppell, 1830)



English Name :Fourbar coralgobyFamily :GOBIIDAELocal Name :Muraka funnaOrder :PerciformesSize :Max. 6 cmSpecimen :MRS/0046/86

**Distinctive Characters:** First dorsal fin with 5-6 spines. Second dorsal fin with 1 spine and 10-11 rays. Anal fin with 1 spine and 8-9 rays. Pectoral fin with 17-19 rays. No scales.

**Colour:** Bright yellow with a pair of vertical blue lines below eyes. Two additional blue lines, one from forehead to edge gill cover and the other across base of pectoral fin. Small black spot just above pectoral fin base.

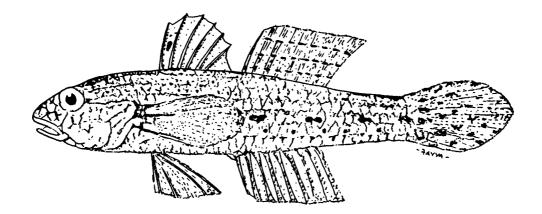
**Habitat and Biology:** Usually seen in small groups perched in the branches of live coral to depths of 25 m. Produces a toxic mucus.

**Distribution:** Indo-West Pacific.

**Remarks:** *Gobiodon citrinus* is one of the most commonly exported aquarium fish in the Maldives. It can easily be recognised from other gobies by its colour pattern.

ד ממ 2 מתית ב זממ צייחית

### Istigobius decoratus (Herre, 1927)



English Name : Decorated gobyFamily : GOBIIDAELocal Name : Nala funnaOrder : PerciformesSize : Max. 13 cmSpecimen : MRS/0289/88

**Distinctive Characters:** First dorsal fin with 6 spines. Second dorsal fin with 1 spine and 10-11 rays. Anal fin with 1 spine and 9-10 rays. Pectoral fin with 17-19 rays. Unbranched caudal rays usually 14. Cheek scaleless. Head length 24 - 30 per cent of standard length.

**Colour:** Light brown with rows of white and black spots, the most evident midlateral row of double black spots. A semi-circular dark mark above corner of mouth.

**Habitat and Biology:** Common on coralline sand near clean coral reefs, at depths to 18 m. Usually seen solitary.

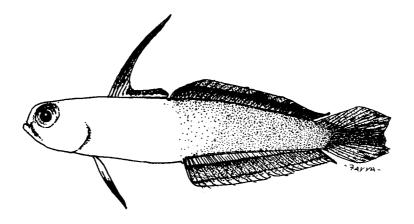
**Distribution:** Indo-Pacific.

**Remarks:** The colouration of *Istigobius decoratus* is highly variable with localities. Some species extremely pale while others very dusky. It is sometimes confused with *I. ornatus*.

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وَرَقَ فَهُمَامِرِوَهِ وَهُمُوكَ تَنْهُمِهُمُورِ ٥ رَثُمَامِرِثَهُدُوْ. وَوَمَرَ تَنْهُمِهُدِدِدِ ا رَثُمَامُوهُدُوْ. وَوَمَرَ تَنْهُمِهُدُدِدِ ا رَثُمَامُوهُدُوْ. وَوَرَدُورُوَدُوْ. وَرَدُو شَرْوَهُ اللَّهُ وَمَا رَثِرَدُورُ وَمُرَدُورُ مِنْهُمُ تَنْهُمِهُمُورِ الْمُرَامُرُورُ ٩ شَرَهُو أَلَا وَلَمَام مَا وَوَرَعُهُورُ اللَّهُ عَلَا مِنْهُ اللَّهُ وَوَقَى مِنْوَدُ مِنْ مُرْدُورُ وَلَا مِرْدُورُورُ مِنْ مَرْدُورُ مِنْ مِنْ مَرْدُورُ مِنْ مِرْدُورُ وَمُورُورُ وَمُورُورُونُ مِنْ اللَّهُ وَوَرُدُونُ مِنْ مِنْ مُرْدُورُ وَمُورُورُونُ مِنْ مُرْدُورُ وَمُورُورُونُ مِنْ مُرْدُورُ مِنْ مُرْدُورُ مِنْ مِنْ مُرْدُورُ مِنْ مِنْ مُرْدُورُ مِنْ مُرْدُورُ مِنْ مُرْدُورُ مِنْ مِنْ مُرْدُورُ مِنْ مُرْدُورُ مِنْ مُرْدُورُ مِنْ مُرْدُورُ مِنْ مِنْ مُرْدُورُ مِنْ مُرْدُورُ مِنْ مُرْدُورُ مُرْدُورُ مِنْ مُرْدُورُ مِنْ مُرْدُورُ مِنْ مُرْدُورُ مُؤْمِدُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُورُدُورُ مُورُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُؤْمُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُورُدُورُ مُرْدُورُ مُرَدُّورُ مُرْدُورُ مُورُدُورُ مُرْدُورُ مُورُدُورُ مُرْدُورُ مُرْدُورُ مُرْدُورُ مُورُورُ مُورُدُورُ مُورُدُورُ مُرْدُورُ مُرْدُورُ مُورُدُورُ مُورُورُ مُورُورُ مُورُدُورُ مُورُورُ مُورُدُورُ مُورُورُ مُورُورُ مُورُورُ مُورُورُ مُورُورُ مُورُورُ مُورُورُ مُورُدُورُ مُورُورُ مُورُورُ

### Nemateleotris decora Randall and Allen, 1973



English Name: Elegant dartfish Family: MICRODESMIDAE

Local Name :Fari dhidha funnaOrder :PerciformesSize :Max. 6 cmSpecimen :MRS/0361/91

**Distinctive Characters:** First dorsal fin with 6 spines. Second dorsal fin with 1 spine and 27-32 rays. Anal fin with 1 spine and 28-31 rays. Pectoral fin with 20-21 rays. Body depth 4.8-5.7 in standard length. Front of first dorsal fin elongated. Caudal fin emarginate.

**Colour:** Body whitish, shading to deep purple posteriorly. Head whitish except lips, snout, and a broad median dorsal band which are violet. Prolonged anterior part of first dorsal fin orange-red, the leading edge magenta. Median fins coloured like body basally, then mainly orange-red with magenta bands.

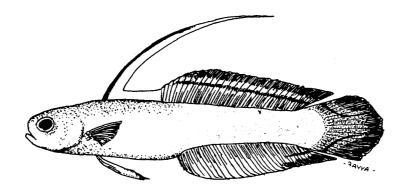
**Habitat and Biology:** Found on the reef slope, hovering above burrows, usually at depths between 25-70 m. Does not stay far from its burrow in to which it quickly darts when frightened. May be seen solitary or in pairs. Feeds on zooplankton, especially copepods and crustacean larvae.

**Distribution:** Maldives to Western Pacific.

**Remarks:** *Nemateleotris decora* is one of the most remarkably coloured dart fishes in the Maldives. The superb colouration of this fish makes it a popular aquarium fish.

وُمِ عرفر قرشرس

## Nemateleotris magnifica Fowler, 1938



English Name: Fire dartfish Family: MICRODESMIDAE

Local Name :Dhidha funnaOrder :PerciformesSize :Max. 8 cmSpecimen :MRS/0293/88

**Distinctive Characters:** First dorsal fin with 6 spines. Second dorsal fin with 1 spine and 28-32 rays. Anal fin with 1 spine and 27-30 rays. Pectoral fin with 19-20 rays. Body depth 4.4-4.9 in standard length. Front of first dorsal fin extremely elongated. Caudal fin rounded.

**Colour:** Body whitish, shading to bright red posteriorly. A magenta streak on top of head. Spinous dorsal whitish, the basal half of leading edge red. Dorsal and anal fins primarily red, suffused with blackish posteriorly and distally. Caudal fin blackish red with two converging narrow dark olive bands.

**Habitat and Biology:** Found on the reef slope, hovering above burrows in sandy patches, at depths between 6 to 60 m. Does not stray far from its burrow into which it quickly darts when frightened. Usually seen in pairs. Feeds on zooplankton, especially copepods and crustaceans larvae.

**Distribution:** Indo-Pacific.

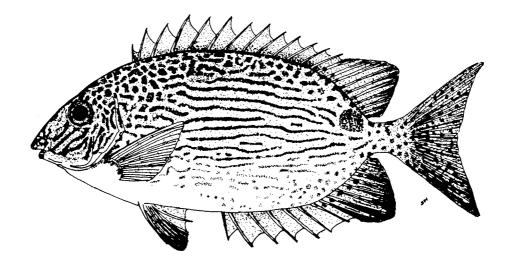
**Remarks:** *Nemateleotris magnifica* is found in shallower waters than *N. decora. N. magnifica* can be distinguished from *N. decora* by the colour patterns and the length of the elongated first dorsal spine, which is much longer in *N. magnifica*. A popular aquarium fish.

و و کو تو شرس

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وُرْكَانَا وَوَرُدُوْدُوْ وَرُدُ دُدُوْ مُاللُهُ مِا مَالِهُ وَدِرُ لَا نَاعِ وَسِوْنَا سَامَةُ وَ

### Siganus lineatus (Valenciennes, 1825)



English Name:Goldlined rabbitfishFamily:SIGANIDAELocal Name:ThammasOrder:PerciformesSize:Common to 25 cm; max. 43 cmSpecimen:MRS/0037/86

**Distinctive Characters:** Dorsal fin with 13 spines and 10 rays. Anal fin with 7 spines and 9 rays. Pectoral fin with 17 rays. Body depth 1.8-2.2 in standard length. Body deep and compressed. Dorsal profile of head slightly convex. Scales minute. Caudal fin slightly forked.

**Colour:** Bluish above, silvery below. Horizontal golden lines on sides. The lines are broken into spots on the dorsal and anal sides of the fish and also at the caudal peduncle. A large golden spot below the soft dorsal.

**Habitat and Biology:** Occurs in schools in coastal areas. Particularly common in shallow waters of coralline areas. Adults and sub-adults on reef flat, young above mangroves. Feeds by scraping algae from coral surfaces and browsing on seaweeds and seagrasses.

**Distribution:** Maldives to Western Pacific.

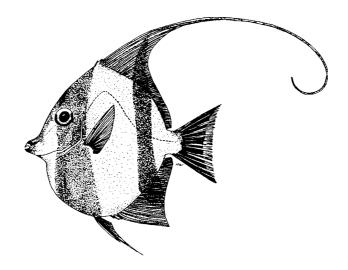
**Remarks:** Siganus lineatus appears to be particularly common in the south of Maldives. It is not seen in the vicinity of Malé. It is very closely related to S. guttatus (Bloch), which differs by being entirely yellow spotted.

مُرْدُوث

۵٬۶۰۱ و ۱۳۰۰ و

وَرْقُ وَمَرَارِدُومَ تَوْمِورُورِ 13 رَثُرَارُجُورُ 10 وَأَنَارِرَثَرَدُوْ. هَسِ اَوَرُورُهُ تَوْمُ مَوْدُورِ 7 رَثُرَارُجُهُ اَنْ 9 وَأَنَارِرْتَرَدُوْ. وَرُو سِ تَوَرُهُ رَسُ سَ سِ لَاكَانُ لَوَ تَرَوْدُ وَوَرُوْ دَرُدُو لَاسُرَابٍ عَلَاثُونَ لَوَ تَرَوْدُو وَوَرُوْ دَرُدُو لَاسُورَابٍ عَلَاكُونُ لَا فِي اللّهِ اللّهِ اللّهِ اللّهِ اللّهِ اللّهُ الللّهُ الللللّهُ اللّهُ الللّهُ اللّهُ اللّهُ اللّهُ اللّهُ اللّهُ ال

### Zanclus cornutus (Linnaeus, 1758)



English Name : Moorish idolFamily : ZANCLIDAELocal Name : Dhidha masOrder : PerciformesSize : Max. 22 cmSpecimen : MRS/0063/86

**Distinctive Characters:** Dorsal fin with 7 spines and 40-43 rays. Anal fin with 3 spines and 33-35 rays. Pectoral fin with 19 rays. Body depth 1.0-1.4 in standard length. Body compressed. Third dorsal spine extremely long and filamentous. Snout slender and projecting.

**Colour:** White anteriorly, yellow posteriorly. Two broad black bars, one from nape to thorax and abdomen (enclosing eye) and the other curving across posterior body and entering dorsal and anal fins. A black-edged orange saddle on snout. Caudal fin largely black.

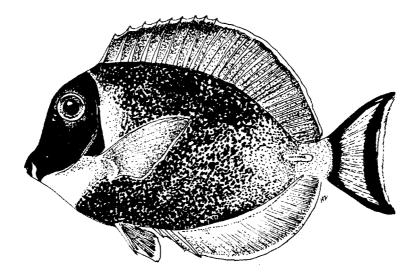
**Habitat and Biology:** Occurs on coral reefs over a large depth range, from the shallows to at least 180 m. Omnivorous, but feeds more on benthic animal material, such as sponges more than algae.

**Distribution:** Indo-Pacific and Eastern Pacific.

**Remarks:** Zanclus cornutus is the only species in the family. It is often favoured by aquarists. Z. canescens (Linnaeus) is a synonym based on the post-larval stage (to 8 cm).

وكركزث

#### Acanthurus leucosternon Bennett, 1832



English Name: Blue surgeonfish Family: ACANTHURIDAE

Local Name :Noo kaalhuOrder :PerciformesSize :Max. 23 cmSpecimen :MRS/0058/86

**Distinctive Characters:** Dorsal fin with 9 spines and 30 rays. Anal fin with 3 spines and 28 rays. Pectoral fin with 2 spines and 14 rays. Pelvic fin with 1 spine and 5 rays. Strongly compressed oval shaped body. First dorsal fin and anal spine very short. Mouth small. Caudal fin emarginate.

**Colour:** Body blue with a black head and a white chin. Dorsal fin yellow with a black sub-marginal line. Caudal fin with two dark cross bands. Upper and lower edges of caudal fin white. Pectoral translucent yellow.

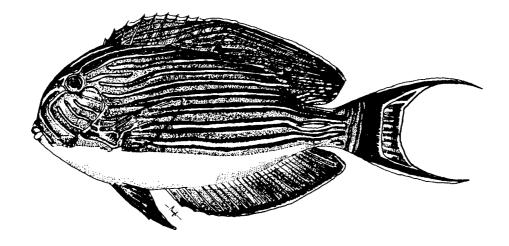
**Habitat and Biology:** A shallow-water outer reef species found to a depth of 10 m. Occasionally found in large feeding aggregations. These schools overwhelm territorial damselfishes guarding their private pastures of algae.

Distribution: Indian Ocean.

**Remarks:** Acanthurus leucosternon is a typical surgeonfish for the Indian Ocean. It is a very popular species among the aquarists, mainly due to its pleasing colour patterns.

ככ קור התעת

#### Acanthurus lineatus (Linnaeus, 1758)



English Name: Lined surgeonfish Family: ACANTHURIDAE

Local Name :Fashuvi libaasOrder :PerciformesSize :Max. 38 cmSpecimen :MRS/0410/92

**Distinctive Characters:** Dorsal fin with 9 spines and 27-29 rays. Anal fin with 3 spines and 25-28 rays. Pectoral rays 16. Adult body depth about 2.2 in standard length. Caudal peduncle spine very long. Caudal fin lunate.

Colour: Distinctly and beautifully coloured, with alternate black edged yellow and blue stripes.

**Habitat and Biology:** An inshore species of coral reefs or rocky substrates exposed to wave action. Feeds on benthic algae. Territorial and very aggressive.

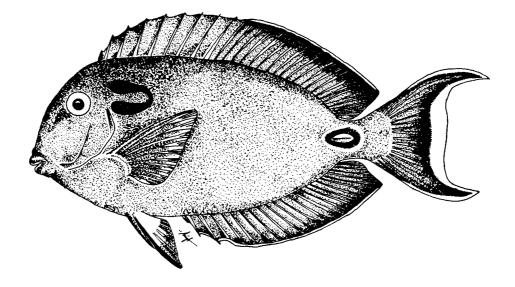
**Distribution:** Indo-Pacific.

**Remarks:** *Acanthurus lineatus* is a very common inhabitant of shallow reef flats. This beautifully marked surgeonfish is very popular among aquarists and divers. The caudal spine is apparently venomous.

و تروح هاشو

وَرَّوْ هُمُ مَامِرُوْمٍ ثَهْمِهُ إِلَّ ارْمُرَاعُهُمُ الْمَا الْمُعَامُ الْمُعَامُ الْمُعَامُ الْمُعَامُونُ و چَهُ الْمُوْمُ وَالْمُرْمُ الْمُهَامِرُورُ لَا مُرْمَاعُهُمُ الْمَاءُ اللّهُ عَلَى الْمُؤْمِدُ الْمُؤْمِدُ الْ رُهُ مَرْسِ رَسِوْدُو وَالْمَرْمُ مَوْمِنْمُونُ وَرُدُ وَلَمُرْمُورُ سِرِقِنْمُورُ الْمُثْرُمُ وَمُعْمِرُهُمُ

#### Acanthurus tennenti Günther, 1861



English Name: Lieutenant surgeonfish Family: ACANTHURIDAE

Local Name :Dhefah kaalhuOrder :PerciformesSize :Max. 31 cmSpecimen :MRS/0382/92

**Distinctive Characters:** Dorsal fin with 9 spines and 23-24 rays. Anal fin with 3 spines and 22-23 rays. Pectoral rays 16. Body depth 1.9-2.2 in standard length. Body becoming more elongate with increasing size.

**Colour:** Brown. Black marks behind eye: horseshoe-shaped in juveniles but becoming two separate stripes in adults. Caudal fin with white margin. Black area around caudal spine edged with pale blue.

**Habitat and Biology:** Found on coral reefs at depths up to 20 m. Forms small schools. Grazes on benthic algae.

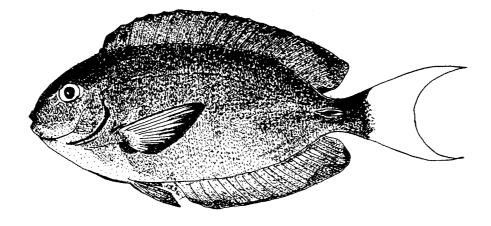
Distribution: Western Indian Ocean.

**Remarks:** *Acanthurus tennenti* is a fairly common shallow water surgeonfish. The colour of the sides can be changed from very pale brown (when the black "ear-stripes" stand out very clearly) to a very dark brown (when they are almost invisible).

#### ء ہر ہ ہے۔ فوٹو شرماع

ود ئردى وَرَدُوْ وَمُوْوَمُ مَا وَ وَرَرِ سُوْهُمَ مَا وَرَدُوهُ لَوْ مَارِدَا وَقَا مَارِدَا وَالْوَالْوَ الْ مَرِدُوْ وَرَمَاوُ وَصَاوَهُوْ " مَالَّهُ " مَالُوْ الْمَارِيْ فَيْمَارُ وَمُولُولُونُ الْمَارُونُ وَلَا وَمُو وَبُدُوْ وَدَرِدُونُ مُوْمَارُونُ مُرَدُونُ مَا وَ وَسُولُمَارُ رَبْرُونُ وَرَدُونُ وَرَهُونُ وَرَدُونُ وَمُور سُولُونِ وَرُورُونُ وَمُرْدُونُ وَمُرَدُونُ مُرَدُونُ مُورُونُ وَمُرَدُونُ وَرَدُونُ وَرَدُونُ وَرَدُونُ وَمُر

### Acanthurus thompsoni (Fowler, 1923)



English Name: Thompson's surgeonfish Family: ACANTHURIDAE

Local Name :Nigoo hudhu kaalhuOrder :PerciformesSize :Max. 27 cmSpecimen :MRS/0340/89

**Distinctive Characters:** Dorsal fin with 9 spines and 23-26 rays. Anal fin with 3 spines and 23-26 rays. Pectoral rays 17. Body depth about 2.3, snout 7.9-8.2 in standard length. Body moderately elongate. Mouth small. Caudal fin lunate.

**Colour:** Uniform chocolate brown; caudal fin white. A dark spot present at rear base of dorsal fin and another below axial of pectoral fin.

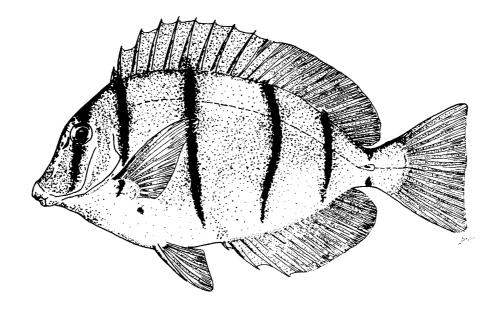
**Habitat and Biology:** Generally found in outer reef areas at depths up to 70 m. Occurs in loose aggregations. Feeds on zooplankton well above the substratum.

**Distribution:** Indo-Pacific.

**Remarks:** Acanthurus thompsoni occurs in schools and is very common in current-swept reefs. A. phillippinus Herre is a synonym.

200 אר מוכ מו ז משתע על

#### Acanthurus triostegus (Linnaeus, 1758)



**English Name:** Convict surgeonfish **Family:** ACANTHURIDAE

Local Name :RaabulhaaOrder :PerciformesSize :Max. 27 cmSpecimen :MRS/0025/86

**Distinctive Characters:** Dorsal fin with 9 spines and 23 rays. Anal fin with 3 spines and 20 rays. Pectoral fin with 2 spines and 13 rays. A compressed body with a small mouth. First dorsal spine short, about one third of second dorsal spine. First anal spine short. Pectoral fin shorter than head. A lancet-like spine on caudal peduncle, which folds into a deep horizontal groove.

Colour: Greenish grey dorsally, shading to white below, with six narrow black bars on head and body.

**Habitat and Biology:** An abundant inshore reef species which feeds on filamentous algae. Often seen in large feeding schools; young common in tidepools.

**Distribution:** Indo-Pacific and Eastern Pacific.

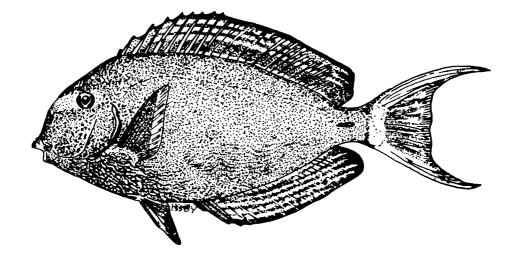
**Remarks:** Acanthurus triostegus is a very common species in the Maldives. This species is of little interest among aquarists.

クラウ シロブ

ئَرْهُوْدُرُدُ وَبَرْدُ وَجِرْدُ وَهِرْوَدُمُوهُ وَلَكُهُ وَبَرُدُ لَهِ مِنْ لِهِ الْفِيرِهُ لَمُرَدُ وَهُوَ ا هُوَرُوْدُ لَا يَهُوْدُ وَيَوْدُرُونُ الْفُلْخِرِدُ 4 مُرْسِوْلُمُرُوْدُ وَلَا سُوْنُوْدُ وَجِوْدُ جَهِوْدُ اللهِ الْمُوْدُورُ وَلَا اللهِ اللهِ اللهِ اللهِ اللهُ اللهُو

َ وَرَدُ هُمُ مُرَرِدُمٍ مُرَّهُ مُرَّهُ وَ وَكُرْمُ مُرَّارُ فَكُرُ وَكُرْمُ وَكُرُورُهُ فَا وَكُرْمُ وَكُرُدُ وَ وَكُرْمُ وَكُرُورُهُ وَ وَكُرْمُ وَكُرُورُ وَكُورُ وَكُرُورُ وَكُرُورُ وَكُرُورُ وَكُرُورُ وَكُورُ وَكُرُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُرُورُ وَكُورُ وَكُمُ وَكُورُ وَكُورُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَكُورُ وَالْمُورُ وَالْمُورُ وَالْمُورُونُ وَالْمُورُونُ وَالْمُورُونُ وَالْمُورُونُ وَالْمُورُونُ وَالْمُولِقُونُ وَلَا لَالْمُولِقُونُ وَلَا لَالْمُولِقُونُ وَلَا لِمُولِكُونُ وَلَا لَالْمُولِقُونُ وَلَا لَالْمُولِقُونُ لِلْمُولِقُونُ لِلْمُولِقُونُ وَلَا لَالْمُولِقُونُ لَا لَالْمُولِقُونُ لَالْمُولِ وَلَالْمُولِقُونُ لِلْمُولِلِ لِلْمُولِ لِلْمُولِلُ لِلْمُل

#### Acanthurus xanthopterus Valenciennes, 1835



English Name :Yellowfin surgeonfish, Ringtail surgeonfishFamily : ACANTHURIDAELocal Name :Vilu kaalhuOrder :PerciformesSize :Max. 65 cmSpecimen :MRS/P0342/89

**Distinctive Characters:** Dorsal fin with 9 spines and 25-27 rays. Anal fin with 3 spines and 23-25 rays. Pectoral rays 16 or 17. Body depth 2.0-2.3 in standard length. Caudal spine 4.5-5.5 in head length. Caudal fin lunate. Gill rakers 16-22.

**Colour:** Pale grey; dull yellow around eye; dorsal and anal fins dull yellow with four longitudinal broad blue bands; outer third of pectoral fin yellow; base of caudal fin often dull white.

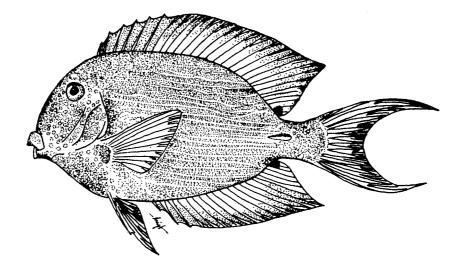
**Habitat and Biology:** Usually observed in deeper lagoons dominated by sand, generally at depths greater than 10 m. Feeds on benthic algae.

**Distribution:** Indo-Pacific and Tropical Eastern Pacific.

**Remarks:** *Acanthurus xanthopterus* is perhaps the largest of the surgeonfishes. Occurs in schools and is very common in deep lagoons ("vilu"). This species has been previously called as *A. matoides*.

34,39

#### Ctenochaetus binotatus Randall, 1955



English Name: Two-spot surgeonfish Family: ACANTHURIDAE

Local Name :Lah jehi kaalhuOrder :PerciformesSize :Max. 22 cmSpecimen :MRS/0225/89

**Distinctive Characters:** Dorsal fin with 8 spines and 24-27 rays. Anal fin with 3 spines and 22-25 rays. Pectoral rays 15-16. Body depth 1.9-2.2 in standard length. Teeth movable. Caudal fin lunate.

**Colour:** Orangish brown with longitudinal lines on body and blue dots on head and chest; two black spots at the base of soft dorsal and anal fin.

**Habitat and Biology:** Found in a variety of reef habitats.

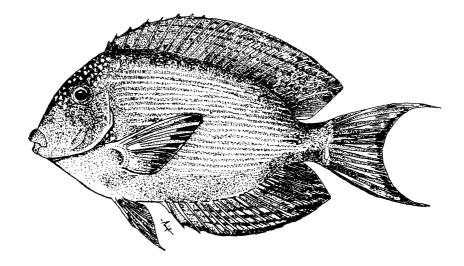
**Distribution:** Indo-Pacific.

**Remarks:** There are three rather similar dull brown species of *Ctenochaetus* found in the Maldives, but *C. binotatus* is easily distinguished from others by its two dark spots. Differs from *Acanthurus* spp. by having movable teeth and less spines on the dorsal fin.

و رفع رسو

وَزُوْ وَمُرَارِوَهُمْ تَوْمِ وَدُوْرِ وَمُرَارُوْهِ الْمُرَارُوْرُوْرُ الْمُرْرُورُوْرُوْرُ الْمُرْرُورُوْرُو عَرَوْرُورُوْرُورُ تَوْمُ وَمُرُورُ وَمُرَارُ الْمُرْرُورُورُ الْمُرْرُورُ الْمُرْرُورُورُ الْمُرْرُورُ الْمُر مِرْدُورُورُ الْمُرْرُورُ الْمُرْرُورُ وَمُرَارُ الْمُرْرُورُورُ الْمُرْرُورُ الْمُرْرُورُ الْمُرْرُورُ الْمُرْرُورُ الْمُرْرُورُ الْمُرْرُورُ الْمُرْرُورُ الْمُرْرُورُ اللهُ اللهُ الْمُرْرُورُ اللهُ الل اللهُ الل

#### Ctenochaetus striatus (Quoy and Gaimard, 1825)



English Name: Straited surgeonfish Family: ACANTHURIDAE

Local Name :Rongu dhemi kaalhuOrder :PerciformesSize :Max. 26 cmSpecimen :MRS/0341/89

**Distinctive Characters:** Dorsal fin with 8 spines and 27-31 rays. Anal fin with 3 spines and 24-28 rays. Pectoral rays 16-17. Body depth 1.9-2.3 in standard length. Teeth movable. Caudal fin lunate.

**Colour:** Dark brown with blue longitudinal lines on body and orange dots on head. Dark blue bands on dorsal and anal fins.

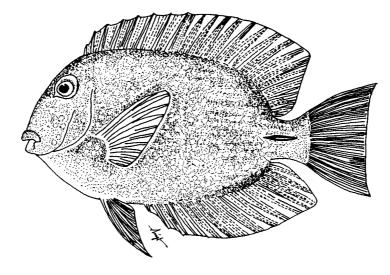
**Habitat and Biology:** Ubiquitous, in various habitats, from protected lagoons to ocean reefs. Occur singly or in small to very large aggregations at depths up to 30 m. Detritus feeder with comb-like teeth.

Distribution: Indo-Pacific.

**Remarks:** *Ctenochaetus striatus* is one of the most common reef fishes, but because of its dull colouration can easily be overlooked. It is rather similar to *C. strigosus* (next page) but can be distinguished on the basis of colouration, caudal fin shape and fin counts.

#### א מת במקבעות מת במקבעות

#### Ctenochaetus strigosus (Bennett, 1828)



English Name: Spotted surgeonfish Family: ACANTHURIDAE

Local Name :Thijjehi kaalhuOrder :PerciformesSize :Max. 18.5 cmSpecimen :MRS/0097/87

**Distinctive Characters:** Dorsal fin with 8 spines and 25-27 rays. Anal fin with 3 spines and 22-25 rays. Pectoral rays 15-16. Body depth 1.7-2.0 in standard length. Teeth movable. Caudal fin slightly emarginate.

**Colour:** Dark brown with pale blue dots on head and body, the dots sometimes join to form irregular lines; eye rimmed with yellow. Juveniles bright yellow.

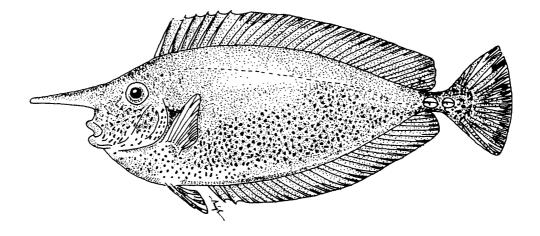
**Habitat and Biology:** Occurs in coral reefs to depths of 50 m. Found in large aggregations.

**Distribution:** Indo-Pacific.

**Remarks:** Ctenochaetus strigosus is very similar to C. striatus (previous page), but the two are easily distinguished in the field on the basis of tail shape. Colour and caudal fin shape varies with locality.

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#### Naso brevirostris (Valenciennes, 1835)



English Name: Spotted unicornfish Family: ACANTHURIDAE

Local Name :ThunbiOrder :PerciformesSize :Max. 55 cmSpecimen :MRS/0381/92

**Distinctive Characters:** Dorsal fin with 6 spines and 27-29 rays. Anal fin with 2 spines and 27-29 rays. Pectoral rays 16-17. Body depth varying from 2.0 in standard length of subadults to 2.7 in adults. Adults with long bony projection in front of the eyes extending well in front of the mouth. Profile of snout between base of horn and mouth almost vertical. Caudal fin truncate to slightly rounded.

**Colour:** Dark brown with pale blue dots on head and body, the dots sometimes join to form irregular lines. Eye rimmed with yellow. Juveniles bright yellow.

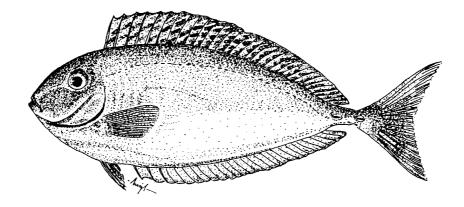
**Habitat and Biology:** Common in coral reefs up to depths of 40 m. Feeds on benthic algae when young, shifting principally to zooplankton when adult.

**Distribution:** Indo-Pacific.

**Remarks:** *Naso brevirostris* is a common and distinctive member of the Maldivian reef fish fauna. Its scientific name ("short rostrum") is based on a small specimen with a short horn.

د میسره

#### Naso hexacanthus (Bleeker, 1855)



English Name: Sleek unicornfish Family: ACANTHURIDAE

Local Name :Dhalhu neiy thunbiOrder :PerciformesSize :Max. 75 cmSpecimen :MRS/0365/91

**Distinctive Characters:** Dorsal fin with 6 spines and 26-29 rays. Anal fin with 2 spines and 27-30 rays. Pectoral rays 17-18. Body depth varying from 2.0 in standard length of subadults to 2.75 in adults. Dorsal profile of head sloping and smoothly convex. Caudal fin emarginate in young, truncate in adults.

**Colour:** Dark brown to pale bluish grey dorsally, yellow brown ventrally. Edges of opercle and preopercle often dark.

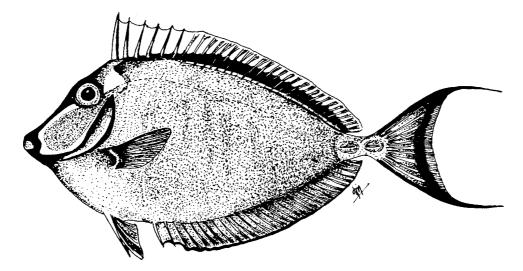
**Habitat and Biology:** Common in deeper waters up to depths of 150 m; often in large aggregations. Feeds on larger components of the zooplankton such as crab larvae, arrow-worms and pelagic tunicates.

**Distribution:** Indo-Pacific.

**Remarks:** Males of *Naso hexacanthus* show a large pale blue area on upper head and dorsoanterior body and some pale blue vertical lines and spots anteriorly on sides of body during courtship.

#### ק ד מ 0 ד בק פיתם, סמית ס ת

#### Naso lituratus (Schneider, 1801)



English Name: Orange spine unicornfish Family: ACANTHURIDAE

Local Name :Ran geriOrder :PerciformesSize :Max. 45 cmSpecimen :MRS/0096/87

**Distinctive Characters:** Dorsal fin with 6 spines and 27-30 rays. Anal fin with 2 spines and 28-30 rays. Pectoral rays 16-17. Body depth varying from 2.0-2.4 in standard length (subadults deeper-bodied). No bumps or protuberances on snout or forehead. Two pairs of sharp keels on slender caudal peduncle.

**Colour:** Brown with a curved yellow band on snout, bright orange caudal spines and a large orange-yellow dorsal fin.

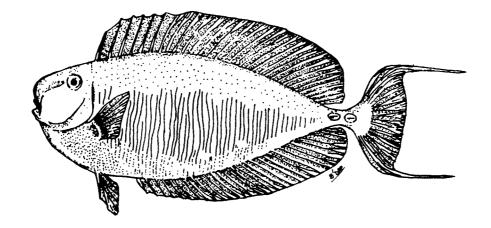
**Habitat and Biology:** Occurs in shallow water and is closely tied to coral reefs. Usually solitary. Feeds primarily on benthic algae.

Distribution: Indo-Pacific.

**Remarks:** *Naso lituratus* is one of the most beautiful of Maldivian reef fishes, with its very smart grey and orange colouration. The presence of a large orange-yellow dorsal fin and a black band in caudal fin is typical for Indian Ocean specimens. Of great interest among aquarists and divers.

بر ۵ پی برسری بر

#### Naso vlamingii (Valenciennes, 1835)



English Name: Vlaming's unicornfish Family: ACANTHURIDAE

Local Name :Vaalan masOrder :PerciformesSize :Max. 60 cmSpecimen :MRS/0409/92

**Distinctive Characters:** Dorsal fin with 6 spines and 26-27 rays. Anal fin with 2 spines and 26-29 rays. Pectoral rays 17-19. Body depth varying from 2.1 in standard length of young to 2.6 in adults. Both dorsal and anal fins elevated. In adults, bump on snout overhanging mouth, and filaments extending from caudal fin corners.

**Colour:** Dark purple brown with vertical blue lines on sides, and blue dots above and below. A broad irregular deep violet band extending forward from the eye. Colour can change dramatically with mood.

**Habitat and Biology:** Found in a variety of reef habitats, but most often seen in outer reef areas in open water near drop-offs at depths up to 50 m. Feeds on midwater zooplankton.

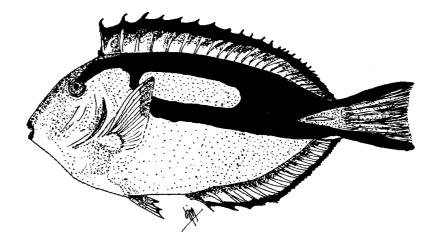
**Distribution:** Indo-Pacific.

**Remarks:** *Naso vlamingii* is a very common inhabitant of Maldivian reefs. Although it feeds on zooplankton, it readily takes bread from divers and snorkellers. Often plays in divers' bubbles.

## *وٌځ*رک

وَرُوْ وَمُمَارِوْهِ ثَهُمُ مِهْرِوْرٍ 6 رَثُمَارُهُوْلُ 20 ثَرُوهُ 27 وَلَمَارِرْمُرُوهُ . صَرِيْوَرُوْرُوْرُ تَهُرِّهُ رِدُرِ 2 رَثُرَامُوهُ أَنْ 20 مِدْ وَوَقُوهُ مِرْدُورُو مُرْدُورُ وَلَا مُرْدَمُرُوْ وَرُدُو وَرُدُو رُهُرَرِيْ وَمُرَدُ دُسُونَارُرُدُونُ وَرُدُ وَمُرْمُومِ رِدُونَا وَيُرَا مُرْدُورُ وَلَا مُرْرَمُرُونُ وَرُدُ نَهُرُورُونُونِ وَمُورُ وَرُدُ وَمِهُ وَرُدُو وَمُرَامُونُ وَرِدُ وَرُدُو وَرُمُورُو وَرُدُو وَرُمُورُو وَرُدُ رَمُرَرُودُورُو رَمُّرُونُ مَوْ وَرُدُ وَمِهُ وَدُورُونُ صَرِيْوَا وَرُمُورُونُ مِهِ مَا مُرَدُورُونُ

#### Paracanthurus hepatus (Linnaeus, 1766)



English Name: Palette surgeonfish, Wedge-tail surgeon Family: ACANTHURIDAE

Local Name :Dhon noo kaalhuOrder :PerciformesSize :Max. 31 cmSpecimen :MRS/0093/87

**Distinctive Characters:** Dorsal fin with 9 spines and 19-20 rays. Anal fin with 3 spines and 18-19 rays. Pectoral rays 16. Pelvic fins with 1 spine and 3 rays. Body depth of adults 2.3 in standard length; caudal spine about 4.0 in head length. Caudal fin of juveniles slightly rounded; of adults truncate with lobe tips slightly projecting.

Colour: Body bright blue. Tail yellow, and black markings on sides.

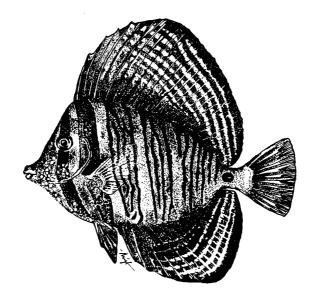
**Habitat and Biology:** Typically found on the reef edge in clear outer reefs or channels where there is substantial current. Feeds on zooplankton. Groups of small individuals are usually associated with heads of branching corals.

**Distribution:** Indo-Pacific.

**Remarks:** *Paracanthurus hepatus* is one of the most beautiful of all reef fishes. It is not common in the Maldives. Being a rare but beautiful species, it is advised not to catch it.

2000 כב מוך בתיות ויתע פ

#### Zebrasoma desjardinii (Bennett, 1835)



English Name: Desjardin's sailfin tang

Family: ACANTHURIDAE

Local Name :Dhunfaiy masOrder :PerciformesSize :Max. 40 cmSpecimen :MRS/0089/86

**Distinctive Characters:** Dorsal fin with 4 spines and 27-31 rays. Anal fin with 3 spines and 22-24 rays. Pectoral rays 15-17. Body depth 1.8-2.0 in standard length. Dorsal and anal fins strongly elevated. No bristles on anterior to caudal spine.

**Colour:** A pattern of dark bars, the two most prominent on head (obscure on dark fish), yellow vertical lines on upper body, breaking into spots below, and small whitish spots on head and chest. Juveniles with yellow and white bars except for black ones posteriorly and two on head.

**Habitat and Biology:** Occurs in coral reefs and rocky bottoms, generally in depths of less than 20 m. Often seen in pairs roaming on reefs and lagoons. Feeds on benthic algae.

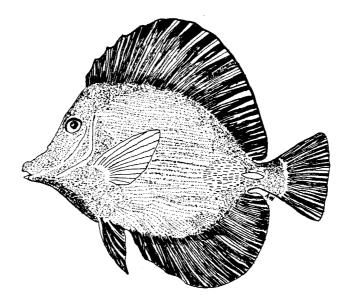
Distribution: Indian Ocean.

**Remarks:** Zebrasoma desjardinii is unique to Indian Ocean. This species is very closely related to Z. veliferum of the Pacific. Some authors consider both as the same species. Of interest to aquarists.

## و شرو هروس

ود مُدَدَيْ وَمُورَوْهُ مُنَوْدُ وَمُرَدُ وَمُرَدُ وَمُرَدُ وَمُرَدُ وَمُرَدُهُ مِنْ وَرَدَهُ وَرَدُو وَرَدُو

#### Zebrasoma scopas (Cuvier, 1829)



English Name: Brown tang, Brushtail tang Family: ACANTHURIDAE

Local Name :Kalhu dhunfaiy masOrder :PerciformesSize :Max. 18.5 cmSpecimen :MRS/0224/88

**Distinctive Characters:** Dorsal fin with 4-5 spines and 23-25 rays. Anal fin with 3 spines and 19-21 rays. Pectoral rays 14-17. Body depth 1.5-1.7 in standard length. Dorsal and anal fins elevated. Adults with an oval patch of brush-like setae posteriorly on side of the body.

**Colour:** Dark olive brown with very fine longitudinal wavy pale lines breaking into dots on nape, chest and head. Sheath of caudal spine white.

**Habitat and Biology:** A common reef species occurring more on protected than exposed reefs at depths up to 20 m. Occurs singly or in small groups. Feeds on benthic algae.

Distribution: Indo-Pacific.

**Remarks:** Zebrasoma scopas is one of the most common Maldivian reef fishes, but it is easily overlooked because of its rather sombre colouration. Of little interest to aquarists.

## مروح وره وره



English Name :Snake mackerelFamily :GEMPYLIDAELocal Name :Ali tholhiOrder :PerciformesSize :Max. 1 m (standard length)Specimen :MRS/P0186/88

**Distinctive Characters:** Dorsal fin divided. First part with 26-32 spines, then 1 spine and 11-14 rays, followed by 5-7 finlets. Anal fin with 10-12 rays and 5-6 finlets. Pectoral fin with 12-15 rays. Body greately elongate and strongly compressed. Two lateral lines. Pelvic fins reduced. Caudal fin forked.

**Colour:** Uniformily dark grey brown with light metallic reflections. Sometimes a few small back spots on pectoral fin base. Fins dark brown with darker margins.

**Habitat and Biology:** Oceanic. Occurs at depths to at least 200 m or more. Often found near surface at night, attracted by night light. Feeds on a wide variety of fishes, crustaceans and cephalopods.

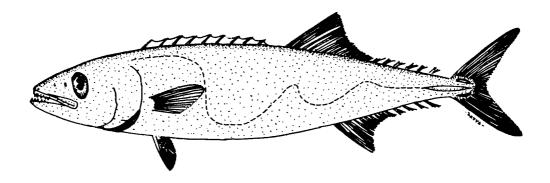
**Distribution:** Worldwide in warm waters.

**Remarks:** The specimen of *Gempylus serpens* on which this report is made was caught by longline from R. V. Matha Hari about 30 miles east of Lhaviyani Atoll on 10th February 1988.

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#### Lepidocybium flavobrunneum (Smith, 1849)



English Name :EscolarFamily :GEMPYLIDAELocal Name :Rongu theyomasOrder :PerciformesSize :Max. 2 m (standard length)Specimen :MRS/P0185/88

**Distinctive Characters:** First dorsal fin with 8-9 spines. Second dorsal fin with 16-18 rays, followed by 4-6 finlets. Anal fin with 1 or 2 compressed spines, 12-14 rays and 4-5 finlets. Pectoral fin with 15-17 rays. Body moderately elongate and slightly compressed. Caudal peduncle with large keel flanked by two smaller ones. Lateral line single, distinct and wavy.

Colour: Body uniformly dark brown, becoming almost black with age.

**Habitat and Biology:** Pelagic and oceanic. Found at depths of 200 m or more. Feeds on a wide variety of fishes, crustaceans and cephalopods.

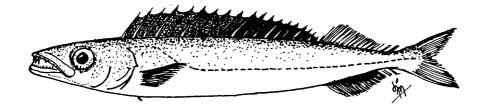
**Distribution:** Warm oceanic waters of the world.

**Remarks:** Like other Gempylids, *Lepidocybium flavobrunneum* is a moderately deep water fish. However, it does come up to the surface at night. Its flesh is very oily and causes stomach upset if eaten.

## x 5 2 x 100

عِوْرِيْ خَيْرِيْ خَيْرِيْ وَرَرْ وَرِ سَرَدُرْ رِيدُ ثَرْقَيْ "خَيْرُوكْ" بَدْرِ وَرْدَ سِوْرَةُ وَرُورُدُو وَرَيْدِوْ تَدْكُ وَرَكُودُ مُوْرِيْ رَوْسِ خَيْرِهُ سِرْكُو مِنْ ثَرْقَ فَيْرُولُونَ "خَيْرِ وَوْرَدُ "خَيْر وَعَمُرُ فَيْدُوْ وَرَمَوْ وَرْدُو مُنْرَدُهِ مِنْ وَرَدُ فَيْرُورُونَ فَيْرُورُونَ مُنْسِرُولُهُ وَمِنْ مُنْو فَقُوهُ مَا مَدْ وَرُدُودُ وَرُدُودُ وَمُرْوَرِيْ فَيَسُورُمُونَ وَرُدُ وَسُودُ وَمُرَدُ وَمِنْ مُؤْرِدُونَ وَرُدُودُ وَمُودُ وَرُدُودُ وَسُودُ وَرُدُو وَسُودُ وَرُدُو وَمِنْ مُؤْرِدُونَ وَرُدُودُ وَمُودُودُ وَرُدُودُ وَمُودُودُ وَرُدُودُ وَمُودُودُ وَرُدُودُ وَمُودُودُ وَرُدُودُ وَمُودُودُ وَرُدُودُ وَمُودُودُ وَرُودُ وَمُودُودُ وَرُدُودُ وَرُدُودُ وَمُودُودُ وَرُودُ وَمُودُودُ وَالْوَالِمُودُ وَرُدُودُ وَمُودُودُ وَالْوَالِمُودُ وَالْوَالِمُودُ وَالْوَالِمُودُ وَالْوَالِمُ وَلَا وَالْوَالِمُودُ وَالْوَالِمُودُ وَلَا وَالْوَالُونُ وَالْوَالُودُ وَالْوَالِمُودُ وَلَا وَالْوَالُودُ وَالْوَالُودُ وَالْوَالُودُ وَلَا وَالْمُودُ وَلَا وَالْوَالِمُودُ وَلَا وَالْوَالُودُ وَلَا وَالْوَالُودُ وَالْمُودُ وَلَا وَالْمُولُودُ وَلَا وَالْوَالُودُ وَلَا وَالْمُودُ وَلَا وَالْمُودُ وَلَا وَالْمُودُ وَلُودُ وَلَا وَلَا وَالْمُودُ وَلَا وَالْمُودُ وَلَا وَالْمُودُ ولَالُودُ وَلَا وَالْمُودُ وَلَا وَالْمُودُ وَلَا وَالْمُودُ وَلَالُودُ وَلَا وَالْمُودُ وَلَا وَالْمُودُ وَلِودُ وَلَا وَالْمُودُ وَلَا وَالْمُودُ وَلَا وَالْمُودُ وَلَا وَلَا لَالْمُودُودُودُ وَلَا وَالْمُودُ وَلَا وَالْمُودُ وَلِي وَلِمُودُودُ وَلِي وَلِي وَلَا لَالْمُودُودُ وَلِهُ وَلَالْمُودُ وَلَا وَالْمُودُودُ وَلِهُ وَلِهُ وَلِهُ وَلِهُ وَلِهُ وَلِهُ وَلَالْمُودُ وَلِهُ وَلِي وَلِهُ وَلِهُ وَلِهُ وَلَالْمُودُ وَلَا وَلَالْمُولِودُودُ وَلَا وَلَالْمُولِودُ وَلِهُ وَلِهُ وَلِهُ وَلِهُ وَلِهُ وَلِهُ وَلَا وَلَالِهُ وَلِهُ وَلَا لَالْمُولِودُ وَلَا وَلَالْمُولِودُ وَلِهُ وَلِهُ وَلِهُ وَلِهُ وَلَا لَالْمُولُودُ وَلِهُ وَلِلْمُولِلِهُ وَلِلْمُولِ وَلَا لَالْمُولِولِهُ وَلِلْمُولِولُولُولُولُولُ

#### Promethichthys prometheus (Cuvier, 1832)



English Name : Promethean escolorFamily : GEMPYLIDAELocal Name : KattelhiOrder : PerciformesSize : Max. 1 m (standard length)Specimen : MRS/P0329/88

**Distinctive Characters:** First dorsal fin with 17-18 spines. Second dorsal fin with 1 spine, 17-20 rays, followed by 2 finlets. Anal fin with 2 compressed spines, 15-17 rays and 2 finlets. Pectoral rays about 15. Anal fin similar to the second dorsal fin in shape and size. Single lateral line curving sharply down between fourth to seventh dorsal spines.

**Colour:** Dark brown with violet reflections, fading to dull brown after death. First dorsal fin membrane black, other fins blackish brown.

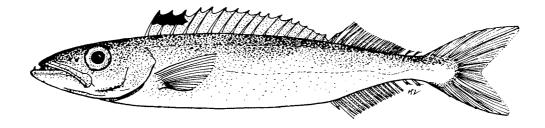
**Habitat and Biology:** Oceanic and benthopelagic. Found at depths of 100 to 750 m. Nocturnal. Feeds on a wide variety of fishes, crustaceans and cephalopods.

**Distribution:** Warm waters of Atlantic, Indian and West and Central Pacific Oceans.

**Remarks:** This record of *Promethichthys prometheus* is based on a series of photographs of a specimen caught in very deep water by handline off Fuah Mulaku on the nights of 3-4 January 1987.

مادع عو

#### Rexea prometheoides (Bleeker, 1856)



English Name :Royal escolar, Silver gemfishFamily :GEMPYLIDAELocal Name :Lah kattelhiOrder :PerciformesSize :Max. 40 cm (standard length)Specimen :MRS/0071/86

**Distinctive Characters:** First dorsal fin with 18 spines. Second dorsal fin with 1 spine, 14-17 rays and 2 finlets. Anal fin with 2 spines (1 free) 12-15 rays and 2 finlets. Pectoral fin with 13 rays. Double lateral line. Lateral line originating above upper angle of gill opening bifurcating below fifth dorsal spine or before it, the upper branch ending below middle of second dorsal fin base, the lower one slightly undulating along the posterior part of body.

Colour: Silvery brown. A black blotch on front of first dorsal fin.

**Habitat and Biology:** Oceanic and benthopelagic, but closer to the coasts than other Gempylids. Found at depths of 135 to 540 m. Feeds on a wide variety of fishes, crustaceans and cephalopods.

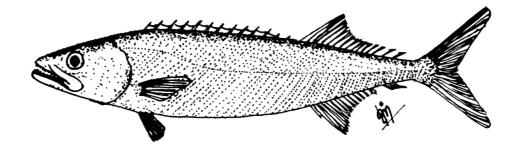
**Distribution:** All warm seas.

**Remarks:** *Rexea prometheoides* is a moderately deep water fish. This record is based on specimens caught in 200 m depth by bottom troll near the north of Baa Atoll by R. V. Dr. Fridtjof Nansen during its visit to Maldives in 1983.

אל מלפש

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#### Ruvettus pretiosus Cocco, 1829



English Name : Oil fishFamily :GEMPYLIDAELocal Name :Theyo masOrder :PerciformesSize :Max. 3 mSpecimen :MRS/0187/88

**Distinctive Characters:** First dorsal fin with 13-15 spines, second dorsal fin with 15-18 rays and 2 finlets. Anal fin with 15-18 rays and 2 finlets. Pectoral fin with 13-15 rays. Belly keeled, with dermal processes between pelvic fins and anus. Eye fairly large and round. Lateral line single and often obscure. Scales cycloid (smooth). No keels on caudal peduncle. Caudal fin broad and forked.

Colour: Body uniformly violet or purplish or brown when alive. Dull brown after death.

**Habitat and Biology:** Benthopelagic, mostly occurring on continental shelf and oceanic slope in depths of 100 to 700 m. Feeds on a wide variety of fishes, crustaceans and cephalopods.

**Distribution:** Worldwide in warm waters.

**Remarks:** The specimen of *Ruvettus pretiosus* on which this record made was taken by gillnet from R. V. "Matha Hari" about 30 miles east of Malé on 16 March 1988.

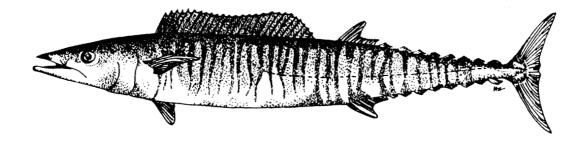
### ئەنىزۇپ

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#### Acanthocybium solandri (Cuvier, 1831)



English Name :WahooFamily :SCOMBRIDAELocal Name :KurumasOrder :PerciformesSize :Common to 1.3 m; max. 2.1 mSpecimen :MRS/P0331/88

**Distinctive Characters:** First dorsal fin with 23-27 spines, second dorsal fin with 12-16 rays followed by 8 or 9 finlets. Anal fin with 12-14 rays followed by 9 finlets. Teeth triangular, compressed and finely serrate. Snout about as long as rest of head. Gill rakers undeveloped.

Colour: Back iridescent bluish green. Numerous dark vertical bars on sides.

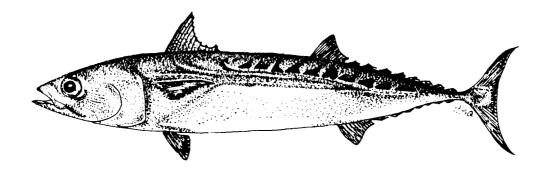
**Habitat and Biology:** Epipelagic; oceanic. Common on outer atoll reefs. Solitary or forming loose aggregations rather than compact schools. Feeds on pelagic fishes and cephalopods.

**Distribution:** Circumtropical.

**Remarks:** Acanthocybium solandri is caught by trolling and also by a specialized fishing technique called "heymas helun". This carried out from small rowing boats and involves skipping a wooden model fish across the sea surface to lure the wahoo up withing harpoon range. Wahoo are usually caught outside the atoll a bit beyond the point at which the reef disappears from sight.

#### د چروسو مهروسو

#### Auxis rochei (Risso, 1810)



English Name :Bullet tunaFamily :SCOMBRIDAELocal Name :Geburu raagondiOrder :PerciformesSize :Common to 30 cm; max. 50 cmSpecimen :MRS/0143/87

**Distinctive Characters:** Two dorsal fins, the first with 10-11 tall spines, separated by large interspace, the second fin followed by 8 finlets. Pectoral fins short, not reaching as far as dorsal patterened scaleless area. Anal fin followed by 7 finlets. Corselet (band of scales along lateral line) relatively well developed, usually 10-15 scales wide under second dorsal fin origin.

**Colour:** Dark bluish above, silvery below. Scaleless area on back with about 15 or more relatively broad dark bars.

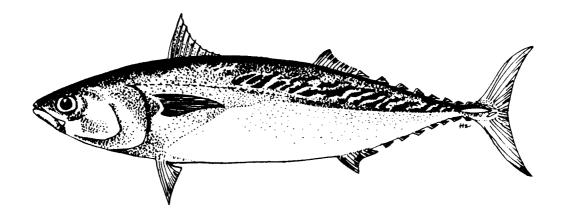
Habitat and Biology: Epipelagic; neritic and oceanic. Feeds on fishes like anchovies and sardines.

**Distribution:** Circumtropical.

**Remarks:** Auxis rochei is very similar in appearance to A. thazard (next page). It differs, however, in a number of small details; the length of the pectoral fins, the breadth of corselet and the dorsal patterns. A. rochei appears to be rather rare in Maldives, specimens occurring only occasionally among the large catches of A. thazard landed at Malé fish market.

# 

#### Auxis thazard (Lacepède, 1800)



English Name : Frigate tunaFamily : SCOMBRIDAELocal Name : RaagondiOrder : PerciformesSize : Common to 35 cm; max. 58 cmSpecimen : MRS/0476/97

**Distinctive Characters:** Two dorsal fins, the first with 10-12 spines, separated from second by a large interspace, the second followed by 8 finlets. Anal fin followed by 7 finlets. Pectoral fin short but reaching past vertical line from anterior margin of scaleless area above corselet. Corselet narrow, no more than 5 scales wide under origin of second dorsal fin. A strong keel on each side of caudal fin base.

**Colour:** Bluish dorsally turning to deep blue on head, silvery white below. A pattern of 15 or more narrow, oblique to nearly horizontal, dark wavy lines in the scaleless area above the lateral line.

**Habitat and Biology:** Epipelagic; neritic as well as oceanic species. Forms large schools. Feeds on small pelagic fishes, planktonic crabs, shrimps and stomatopod larvae.

**Distribution:** Tropical and temperate waters of the Indian and Pacific Oceans.

**Remarks:** Auxis thazard is a major fishery in the Maldives. It is third in importance in terms of catch after skipjack and yellowfin tuna. Caught mainly by pole and line, but also by trolling. It is not as a popular food fish as skipjack, perhaps because of its small size, boniness, and possible confusion with the poisonous "raagondi koli" (see page 372).

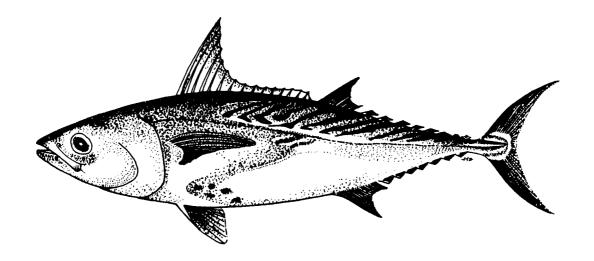
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حَسر فَوَرُ مُرْوَدُ وَ وَدُمِ مِرْ مُورُدُونَ وَرُوَ مُسْرُدُمِ مُورُدُ مُنْ مِرْدُفَة سُورُونَ وَسُورُونَ

### Euthynnus affinis (Cantor, 1849)



English Name :KawakawaFamily :SCOMBRIDAELocal Name :LattiOrder :PerciformesSize :Common to 55 cm; max. about 1 mSpecimen :MRS/0075/86

**Distinctive Characters:** Two dorsal fins, the first with 11-14 spines, both fin separated by a narrow interspace. Anterior spines of dorsals much higher than those midway, giving the fins a strongly concave outline. Second dorsal fin much lower than first and followed by 8-10 finlets. Pectoral fins short. Two flaps between pelvic fins. Body naked except for corselet and lateral line.

**Colour:** Bluish black dorsally, silvery white ventrally. Many dark bands above lateral line. One or more small black spots between pelvic and pectoral fin (may not always be very conspicuous).

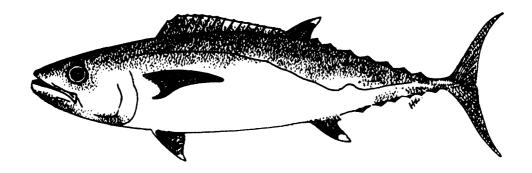
**Habitat and Biology:** Epipelagic; neritic species inhabiting water temperatures ranging from 18° C to 29° C. Form schools. Feeds on small pelagic fishes, planktonic crabs, shrimps and stomatopod larvae.

**Distribution:** Warm waters of the Indo-West Pacific.

**Remarks:** *Euthynnus affinis* is commonly caught in the Maldives by trolling. Unlike the other major tuna species (which are more oceanic) this species is closely associated with the atolls. Kawakawa is also known as "little tuna", but this name can be confused with "small tuna" so is best avoided.

وريع

### Gymnosarda unicolor (Rüppell, 1838)



English Name:Dogtooth tunaFamily:SCOMBRIDAELocal Name:WoshimasOrder:PerciformesSize:Common to 1.1 m; max. 1.5 mSpecimen:MRS/P0477/97

**Distinctive Characters:** Dorsal fins close together, the first with 13-15 spines, its margin nearly straight, the second followed by 6-7 finlets. Anal fin with 12-13 rays followed by 6 finlets. Pectoral fin with 25-28 rays. Body elongate and moderately compressed. Mouth fairly large. 14-31 large conical teeth on both jaws. Interpelvic process large and single. Lateral line strongly undulating.

**Colour:** Overall appearance grey. Back blue-black, fading to silvery below. Anterior edge of first dorsal fin dark, other fins grayish. Tips of second dorsal and anal white.

**Habitat and Biology:** An epipelagic species, usually encountered around coral reefs. Generally solitary, or occurs in small groups. Voracious predator, feeding on small schooling fishes and squids.

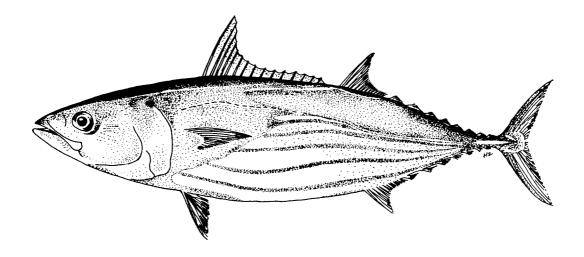
**Distribution:** Indo-Pacific.

**Remarks:** Unlike other tunas, which are more or less fishes of open ocean. *Gymnosarda unicolor* is usually associated with coral reefs. It is caught by trolling and handlining. A wide size range is landed at Malé fish market but most are within the range 40-110 cm fork length.

قرۇ<u>ث</u>

قَرِوْرَهِ مُرْدَةُ وَمُورُوْمَنَ قَامُورُومَنَ مُرْدَهُوهِ الْمُومُومِ مَنْ الْمُورُومُونُ الْدِرِدُ وَرَدُ الْمُرْدُورُونُ الْدِرْدُورُ الْمُرْدُورُورُ الْمُرْدُورُورُ الْمُرْدُورُ الْمُرُدُورُ الْمُرْدُورُ الْمُورُ الْمُرْدُورُ الْمُرْدُورُ الْمُورُ الْمُورُورُ الْمُورُورُ الْمُورُورُ الْمُورُ الْمُورُ الْمُورُ الْمُورُورُ الْمُورُ الْمُورُ الْمُورُورُ الْمُورُ الْمُورُ الْمُورُ الْمُورُورُ الْمُورُورُ الْمُورُورُ الْمُورُورُ

#### Katsuwonus pelamis (Linnaeus, 1758)



English Name:Skipjack tunaFamily:SCOMBRIDAELocal Name:KalhubilamasOrder:PerciformesSize:Common to 70 cm; max. 1.08 mSpecimen:MRS/0050/86

**Distinctive Characters:** Two dorsal fins separated by a small interspace (not larger than eye). The first dorsal fin with 14-16 spines, the second followed by 7-9 finlets. Anal fin with 14-15 rays followed by 7 finlets. Pectoral fin with 26-28 rays. Body scaleless except for the corselet and lateral line.

**Colour:** Back dark purplish blue. Lower side and belly silvery, with 4-6 very conspicuous longitudinal dark bands (which in live specimens may appear as discontinuous lines of dark blotches).

**Habitat and Biology:** Epipelagic and oceanic usually above the thermocline. Forms massive schools together with juvenile yellowfin tuna. Feeds on small fishes, cephalopods and crustaceans.

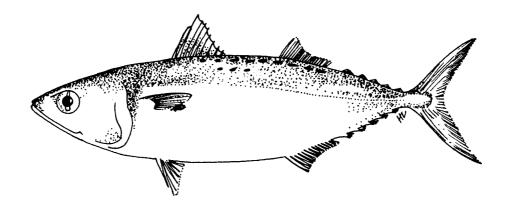
**Distribution:** Tropical and warm temperate waters throughout the world.

**Remarks:** *Katsuwonus pelamis* is the most commercially important species in the Maldives. This one species accounts for about two thirds of the toal recorded fish catch. It is caught almost exclusively in the livebait pole and line fishery. This is a traditional fishery that has almost certainly been in existence for over one thousand years.

ر توه و و وسو

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#### Rastrelliger kanagurta (Cuvier, 1817)



English Name :Indian mackerelFamily :SCOMBRIDAELocal Name :KaraverimasOrder :PerciformesSize :Max. 35 cmSpecimen :MRS/P0155/87

**Distinctive Characters:** Dorsal fins well separated. The first triangular with 8-11 spines, second dorsal and anal fins followed by 5 finlets. Pectoral fin short with 19-20 rays. Body moderately deep, its depth at margin of gill cover 4.3-5.2 in fork length. Gillrakers very long and visible when mouth is open.

**Colour:** Back blue-green, sides silver with golden tint, narrow dark longitudinal bands on upper part of body (golden in fresh specimens). A black spot on body near lower margin of pectoral fin.

**Habitat and Biology:** Pelagic in coastal waters. Often schooling in large numbers. Juveniles feed on phytoplankton, adults primarily on macroplankton such as larval shrimp and fish.

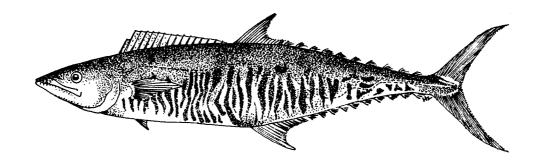
**Distribution:** Widespread in Indo-West Pacific.

**Remarks:** *Rastrelliger kanagurta* appears to occur only irregularly in central and southern Maldives. However, it occurs more regularly in northern Maldives, particularly during the northeast monsoon.

م برؤ بروس

وَرُوْ فَهُمَا مِرَوَهٍ وَ ثَمْمِ فَرَهُ مَرْهُ وَ رُحْمَ هُوَ مُرَدُهُ وَمِدُ وَهُمْ فَهُوْ فَهُوْ فَهُوَ فَكُورُ وَرُوْ وَمِرَدُو وَمُرَا وَرُوْ وَمُرَا وَرُوْ وَمُرَا وَرُوْرُ وَرُوْرُ وَرُوْ وَمِرْهُ وَرُوْرُ وَرُوْرُ وَرُوْرُ وَرُوْرُ وَرُوْرُ وَرُورُ وَالْمُورُ وَالْمُورُورُ وَالْمُورُ وَالْمُورُورُ وَالْمُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُ وَالْمُورُورُ ورُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُورُ وَالْمُورُولُورُ وَالْمُورُ وَالْمُورُ وَالْمُورُولُورُ وَالْمُورُ وَالْمُورُ وَالْمُورُولُورُ وَالِمُورُا وَالْمُورُولُولُورُ وَالْمُورُولُولُورُ وَالْمُولِولُولُ

#### Scomberomorus commerson (Lacepède, 1800)



**English Name :** Narrow-banded spanish mackerel **Family :** SCOMBRIDAE **Local Name :** Galhi kurumas **Order :** Perciformes

Size: Max. 2.2 m

**Distinctive Characters:** Two dorsal fins. The first with 15-18 spines, second dorsal fin with 15-20 rays followed by 8-10 finlets. Anal fin with 16-21 rays followed by 7-12 finlets. Pectoral fin with 21-24 rays. Lateral line wavy but abruptly bent downward behind second dorsal fin.

**Colour:** Deep blue-grey above, pale below. Numerous thin, wavy vertical bands on sides. Juveniles are frequently spotted.

**Habitat and Biology:** Pelagic in coastal waters at depths between 15 to 200 m. Forms small schools. Known to undertake longshore migrations. Feeds on small schooling fishes such as sardines.

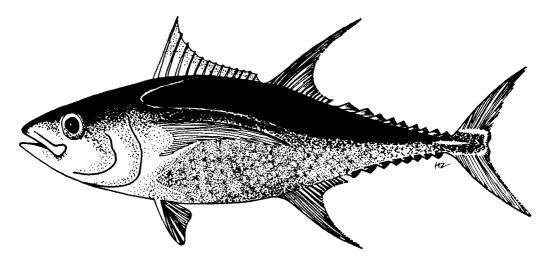
**Distribution:** Indo-West Pacific.

**Remarks:** Scomberomorus commerson is rare in Maldives. Few specimens are landed at Malé fish market among the much more common wahoo. S. commerson is a migratory species common off the coasts of Sri Lanka and India. The individuals that turn up in Maldives are perhaps strays from those countries.

ئولى ترۇسى

وهُوَهُوَ وَسُ دِهُوَهُ وَسُ دِهُو دُ دَوِ سَهِ عِرْدَةُ دَدُ سَهُ مِ سَدِمِ سَدِهُ عَلَى ثَوْدَ وَسُ دَوْوَا دُوْوَهُ وَ مَرْوَوُهُ وَ وَهُوَ وَكُو وَهُو وَهُوَ وَكُو وَهُو وَهُو وَكُو وَكُو وَسُ وَكُو وَكُو وَهُو وَهُو وَكُو وَكُو وَسُ وَكُو وَكُو وَسُو وَهُو وَكُو وَسُو وَهُو وَكُو وَسُو دَوَوَ وَهُو وَكُو وَرَدُ مَا مِرَدُ وَرَدُو وَسُو دَوَوَ وَهُو وَرَدُو وَرَدُو وَرَدُو وَمُو وَرَدُو وَرَدُو مَا وَمُو وَرَدُو وَرَدُو مِ وَمُو وَرَدُو وَرَدُو مِنْ وَرَدُو مِنْ وَرَدُو وَرَدُو مِنْ وَرَدُو مُو مِنْ وَرَدُو مِنْ وَرَدُو وَرَدُو مِنْ وَرَدُو وَرَدُو مِنْ وَرَدُو مِنْ وَرَدُو مِنْ وَرَدُو وَرَدُو مِنْ وَرَدُو مُو مِنْ وَرَدُو مُو وَرَدُو مِنْ وَرَدُو مِنْ وَرَدُو مِنْ وَرَدُو مُو مِنْ وَرَدُو وَرَدُو مِنْ وَرَدُو مُو مِنْ وَرَدُو مِنْ وَرَدُو وَرَدُو مِنْ وَرَدُو وَرَدُو مِنْ وَرَدُو وَرَدُو مِنْ وَرَدُو مُو وَرَدُو مُو وَرَدُو وَرَدُو مُو وَرَدُو وَرَدُو مُو وَرَدُو مُو وَرَدُو مُؤْمِو وَرَدُو وَرَدُو مُؤْمِو وَرَدُو وَرَدُو وَرَدُو مُؤْمِونَ وَوَرَدُو وَرَدُو مُؤْمُونُو وَمُو وَرَدُو وَرَدُو مُو وَرَدُو مُؤْمِونُ وَمُؤْمُونُو وَرَدُو مِنْ وَمُؤْمُونُو وَرَدُو مُؤْمِونُ وَوَرَدُو وَرَدُو مُؤْمِونُ وَمُؤْمُونُو وَرَدُو مُؤْمُونُ وَالْمُؤَودُ وَوَرَدُو وَرَدُو مُؤْمِونُ وَلَا مُؤْمُونُو وَالْمُونُ وَالْمُونُونُ وَالْمُؤْمُونُ وَلَا مُؤْمُونُونُ وَالْمُؤْمُونُ وَلَا مُؤْمُونُونُ وَالْمُؤْمُونُ وَلَا مُؤْمُونُونُ وَالْمُؤْمُونُونُ وَالْمُؤْمُونُونُ وَالْمُؤْمُونُونُ وَالْمُؤْمُونُ والْمُؤْمُونُ وَالْمُؤْمُونُ وَالْمُؤْمُونُ وَلَالِمُونُ وَلَالْمُؤْمُونُ وَلَالْمُؤْمُونُ وَلَالْمُؤْمُونُ وَلَالْمُؤْمُونُونُ وَلَالْمُونُ وَلَالْمُولُولُولُولُومُ وَلَالْمُؤْمُونُ وَلَالْمُؤْمُونُ وَلَالْمُونُ وَلَالْمُونُ وَلَالْمُولُولُولُومُ وَلَالْمُولُولُومُ وَلَالْمُونُ وَلَالْمُولُولُومُ وَلَالْمُؤْمُونُ وَلَالْمُولُولُومُ وَلَالْمُولُولُومُ وَلَالْمُولُولُومُ وَلَالْمُولُولُولُومُ وَلَالِمُولُولُومُ وَلَالِمُولُولُومُ وَلَالْمُولُولُولُولُومُ وَلَالْمُولُولُولُومُ وَلَالْمُولُولُومُ وَلَالْمُولُولُولُومُ وَلَالْمُولُولُومُ وَلَالْمُولُولُومُ وَلَالْمُولُولُومُ وَلُولُولُومُ وَلَالْمُولُولُومُ وَلُولُولُولُومُ وَلُولُولُولُو

#### Thunnus albacares (Bonnaterre, 1788)



English Name : Yellowfin tunaFamily : SCOMBRIDAELocal Name : Reendhoo uraha kanneliOrder : PerciformesSize : Max. 2 mSpecimen : MRS/0012/86

**Distinctive Characters:** Dorsal fins close together. The first with prolonged spines anteriorly giving a strongly concave outline. First dorsal with 13-14 spines, second dorsal and anal fin extremely tall in large specimens. 7-10 finlets behind second dorsal and anal fins. Pictoral fins moderately long, usually reaching beyond second dorsal fin origin. No striations on ventral surface of liver; right lobe elongated.

**Colour:** Metallic steel blue on back to silvery below. Belly crossed by about 20 broken lines of light spots which curve posteriorly. Dorsal and anal fins and finlets bright yellow.

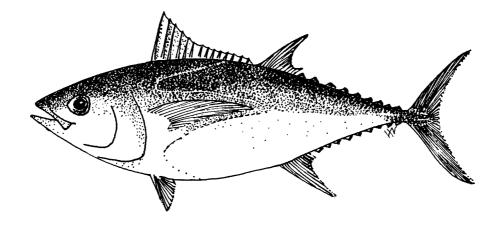
**Habitat and Biology:** Epipelagic, oceanic, above and below the thermocline. Forms schools by size, also with other species. Feeds on wide variety of fishes, crustaceans and cephalopods.

**Distribution:** World-wide in tropical and sub-tropical seas.

**Remarks:** *Thunnus albacares* is the second most important species in the Maldivian fishery. It accounts for roughly 10 per cent of the total recorded catch. Most yellowfin tunas caught in the Maldives are juveniles of about 30-60 cm fork length, taken by pole and line. However, increasing numbers of adults are being taken by livebait handline.

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#### Thunnus obesus (Lowe, 1839)



English Name: Bigeye tuna Family: SCOMBRIDAE

Local Name: Loabodu kanneli Order: Perciformes

**Size:** Max. 2.1 m

**Distinctive Characters:** Dorsal fins close together. First dorsal with 13-15 spines, second dorsal and anal fins falcate, each followed by 8-10 finlets. Pectoral fins moderately long in larger specimens (over 1.1 m fork length). Corselet of large and thicker scales developed but not very distinct. Ventral surface of liver striated; all three lobes of roughly equal in length.

**Colour:** Dark blue above, pale below. Dorsal and anal fins yellow. Finlets yellow with black edges. Roughly 8-10 near vertical, and more or less continuous pale lines on sides.

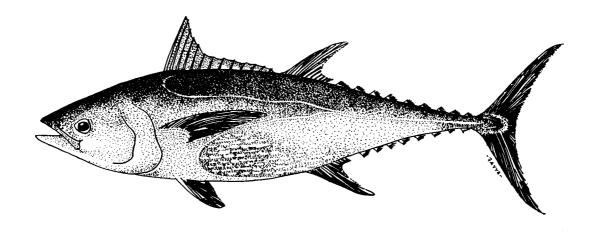
**Habitat and Biology:** Epipelagic and mesopelagic in oceanic waters from the surface to 250 m. Juveniles school with yellowfin and/ or skipjack tuna. Feeds on fishes, cephalopods and crustaceans.

**Distribution:** World-wide in tropical and sub-tropical oceans.

**Remarks:** *Thunnus obesus* is very similar to and frequently confused with yellowfin tuna (previous page). It differs in having a heavier, thicker-set body and shorter second dorsal and anal fins. The pattern of pale lines on the sides is different. In addition, the liver of yellowfin tuna has one lobe noticeably longer than the other two and is not striated. Bigeye tuna is widespread in the Indian Ocean but is deeper swimming than yellowfin tuna, so rarely appears in normal Maldivian catches.

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#### Thunnus tonggol (Bleeker, 1851)



English Name : Longtail tunaFamily :SCOMBRIDAELocal Name :Nigoo dhigu kanneliOrder :PerciformesSize :Max. 1.3 mSpecimen :MRS/P0494/97

**Distinctive Characters:** A medium-sized tuna species, deepest near middle of first dorsal fin base. Gill rakers few, 19-27 on the first arch. Pectoral fin moderately long with 30-35 rays. Ventral surface of liver not striated; right lobe of liver much longer than other two. Swimbladder absent or rudimentary.

**Colour:** Back dark blue or black. Lower sides and belly silvery white with colourless elongate oval spots arranged in horizontal rows. Dorsal, pectoral and pelvic fins blackish.

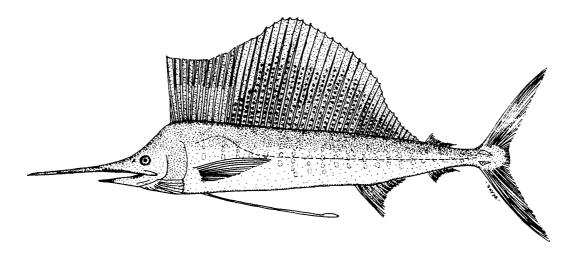
**Habitat and Biology:** Epipelagic and neritic. Avoids areas with reduced salinity and turbid waters. Forms schools of varying size. Opportunistic feeder, feeding on cephalopods, crustaceans and fish.

**Distribution:** Indo-West Pacific.

**Remarks:** *Thunnus tonggol* is a neritic species, common around the coasts of India. It is extremely rare in Maldivian waters. In fact only one specimen has been positively recorded from the Maldives. It was caught by a team from the Marine Research Section while carrying out tuna tagging in the One-and-a-half Degree Channel in February 1994. Earlier records of it from Maldives appear to be in error.

# ת בבת ב מתנית <del>ק</del>

#### Istiophorus platypterus (Shaw and Nodder, 1792)



English Name :Indo-Pacific sailfishFamily :XIPHIDAELocal Name :Fangandu hibaruOrder :PerciformesSize :Common to 2.7 m; max. 3.2 mSpecimen :MRS/P0478/97

**Distinctive Characters:** A tall long-based sail-like dorsal fin with 42-49 rays. Small second dorsal fin with 6 or 7 rays. 2 anal fins, the first with 12-17 rays and second with 6-7 rays. Pectoral fin with 18-20 rays. Body compressed laterally. Pelvic fins very long. Body covered by embedded scales.

**Colour:** Dark blue dorsally, pale ventrally. About 20 pale spotted stripes on sides. Sail deep blue with dark spots.

**Habitat and Biology:** Oceanic, epipelagic and highly migratory. Feeds on a wide variety of fishes, crustaceans and cephalopods.

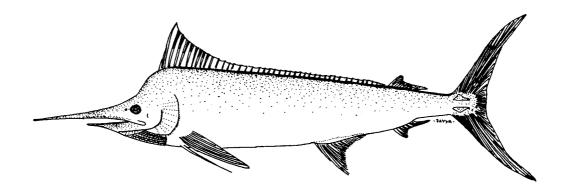
**Distribution:** Widespread in tropical and temperate waters of Indian and Pacific Oceans.

**Remarks:** The sailfish, *Istiophorus platypterus* is the most commonly seen of the billfishes. Unlike other species, which tend to be rather oceanic, the sailfish is common in and around the atolls. It is frequently landed at Malé fish market. Previously recorded under the family Istiophoridae.

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#### Makaira indica (Cuvier, 1832)



English Name :Black marlinFamily :XIPHIDAELocal Name :Kalhu mas hibaruOrder :Perciformes

Size: Common to 3.8 m; max. 4.6 m

**Distinctive Characters:** First dorsal fin with 38-45 rays. Second dorsal fin with 6-7 rays. First anal fin with 13-14 rays and second anal fin with 6-7 rays. Pectoral fin with 19-23 rays. Bill round in cross sections. Body strongly compressed. Nape very steep. Pectoral fins rigid and not foldable naturally against sides. Body covered by densely embedded scales.

Colour: Dark blue dorsally, paler ventrally. Sometimes with faint vertical stripes.

**Habitat and Biology:** Oceanic, epipelagic and highly migratory. Feeds on a wide variety of fishes, crustaceans and cephalopods.

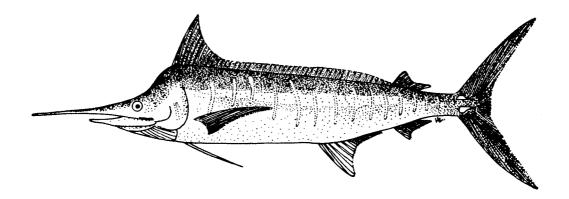
Distribution: Warm waters of the Indian and Pacific oceans. Occasionally in Atlantic ocean.

**Remarks:** *Makaira indica* can be easily distinguished from *M. mazara* by the fact that its pectoral fins are rigid. Both can be distinguished from the superficially similar striped marlin (*Tetrapterus audex*) which has a more compressed body and dorsal fin lobe which is equal to or greater than the body. The black marlin is the largest of the bill fish, and a supreme game fish.

## مرور کور سور کار

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#### Makaira mazara (Jordan and Synder, 1901)



English Name :Indo-Pacific Blue marlinFamily :XIPHIDAELocal Name :Noomas hibaruOrder :PerciformesSize :Common to 3.5 m; max. 4.3 mSpecimen :MRS/0319/88

**Distinctive Characters:** First dorsal fin with 40-45 rays. Second dorsal fin with 6-7 rays. Pectoral fin with 20-23 rays. Bill round in cross-section. Body not strongly compressed. Nape highly elevated. Pectoral fins not rigid and can be folded. Body covered by densely embedded scales.

Colour: Blue black dorsally, pale ventrally. About 15 cobalt coloured vertical stripes.

**Habitat and Biology:** Oceanic, epipelagic and highly migratory. Feeds on a wide variety of fishes, crustaceans and cephalopods.

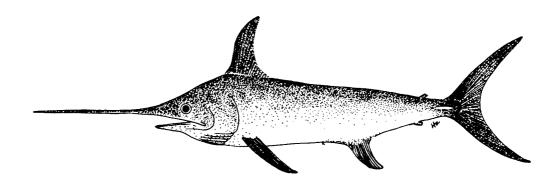
**Distribution:** Tropical and temperate waters of Indian and Pacific Oceans.

**Remarks:** *Makaira mazara* has often been referred to as *Makaira nigricans* but this name is now only applied to the Atlantic Blue marlin. The two differ in lateral line morphology. Blue marlins are caught by commercial longlines and by sports fisherman. Previously recorded under the family Istiophoridae in the Catalogue of Fishes of the Maldives, Vol. 3, page 446.

## شروسور همر

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### Xiphias gladius Linnaeus, 1758



English Name: Swordfish Family: XIPHIDAE

Local Name: Thungadu hibaru, Kanneli hibaru Order: Perciformes

**Size:** Common to 3 m; max. 4.5 m

**Distinctive Characters:** First dorsal fin with 34-49 rays. Second dorsal fin with 4-6 rays. First anal fin with 13-14 rays. Second anal fin with 3-4 rays. Pectoral fin with 16-18 rays. Bill extremely long and flattened in cross-section. Pelvic fins and pelvic girdle absent. Single, large medium caudal keel in adults.

Colour: Dark brown above, paler below.

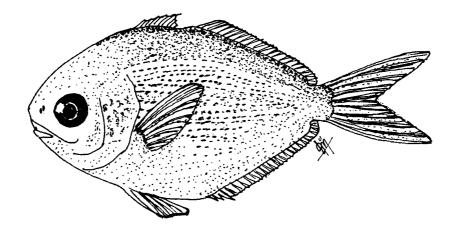
**Habitat and Biology:** Epipelagic to depths of 650 m, primarily oceanic and highly migratory. Feeds on a wide variety of fishes, crustaceans and squids.

**Distribution:** Circumglobal in tropical and temperate seas.

**Remarks:** The sword fish, *Xiphias gladius* is very common in the offshore waters around the Maldives. During the offshore fishery survey conducted by the R. V. "Matha Hari" in 1987-88, roughly 80 per cent of the billfish caught were swordfish.

## 26-2-07

### Psenes cyanophrys Valenciennes, 1833



English Name :Freckled driftfishFamily :NOMEIDAELocal Name :Oimas, Fiyala dhariOrder :PerciformesSize :Max. 20 cmSpecimen :MRS/P0184/88

**Distinctive Characters:** First dorsal fin with 9-11 rays. Second dorsal fin with 1 spine and 23-28 rays. Anal fin with 3 spines and 23-28 rays. Pectoral fin with 17-20 rays. Body depth 1.8-2.4 in standard length. Body firm, deep and compressed. Eye small, usually smaller than snout. Pectoral fin equal or less than head length. Teeth in both jaws small and pointed, not laterally flattened.

Colour: Pale grey-brown with silvery sheen. Numerous dark horizontal lines on sides.

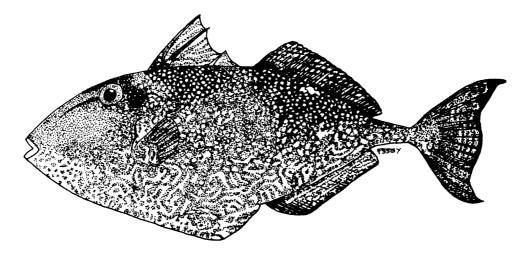
**Habitat and Biology:** Oceanic and pelagic, often associated with seaweed and other drifting objects. Feeds on jelly fish, as well as other zooplankton and small fish.

Distribution: Atlantic, Pacific and Indian Oceans.

**Remarks:** Several specimens of *Psenes cyanophrys* were caught in drifting gillnets by R. V. Matha Hari, during the exploratory offshore fisheries survey in 1987-88.

مرد وسو

### Abalistes stellatus (Lacepède, 1798)



English Name : Starry triggerfishFamily : BALISTIDAELocal Name : Thari ronduOrder : PerciformesSize : Max. 60 cmSpecimen : MRS/P0378/92

**Distinctive Characters:** Dorsal fin with 3 spines and 25-27 rays. Anal fin with 24-25 rays. Pectoral rays 15-16. Body deep and laterally compressed. Scales enlarged above the pectoral fin base, forming a flexible tympanum. Cheeks scaly. Prominent groove on snout in front of eye. Longitudinal scale ridges on posterior part of the body. Caudal peduncle wider than deep. Caudal fin double emarginate.

**Colour:** Background colour grey dashed with olive green, suffused with yellow, overlaid with many pale spots. Three whitish blotches on back (faint or absent in large individuals). Pectoral fins yellow.

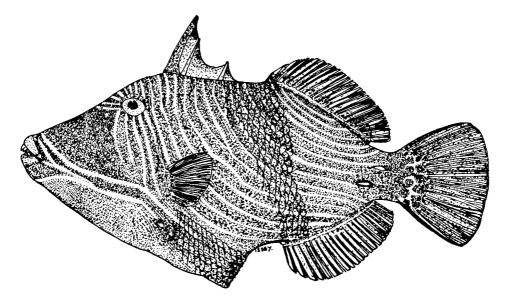
**Habitat and Biology:** Found over sand, sponge and weed bottoms to depths of 100 m. Solitary or in small groups. Feeds on benthic animals.

**Distribution:** Indo-West Pacific.

**Remarks:** *Abalistes stellatus* is not very often seen in the Maldives, because it is a moderately deep dwelling species. It appears to be more common in the atoll basins.

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### Balistapus undulatus (Park, 1797)



English Name :Orangestriped triggerfishFamily :BALISTIDAELocal Name :Dhaifuku ronduOrder :TetraodontiformesSize :Max. 30 cmSpecimen :MRS/0349/89

**Distinctive Characters:** Dorsal fin with 3 spines and 24-28 rays. Anal fin with 20-24 rays. Pectoral fin with 12-14 rays. Third dorsal spine of moderate length (not minute). No groove in front of eye. Second dorsal and anal fins not elevated anteriorly. Caudal fin slightly rounded.

Colour: Dark greenish brown with bright orange lines. Adult male with no bands on dark snout.

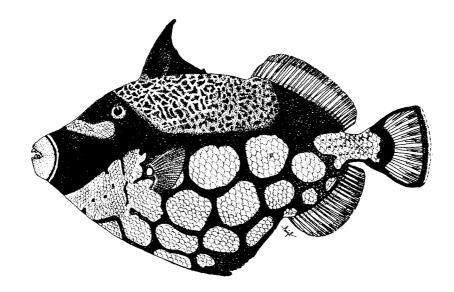
**Habitat and Biology:** Occurs in a variety of habitats on reef flat and reef edge. Extremely varied diet: live corals, benthic algae, sea urchins, crustaceans, other benthic invertebrates and also small fishes.

**Distribution:** Indo-Pacific.

**Remarks:** Balistapus undulatus is a common inhabitant of the Maldivian reefs. It is an interesting aquarium fish.

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### Balistoides conspicillum (Bloch and Schneider, 1801)



English Name : Clown triggerfishFamily :BALISTIDAELocal Name :Bis ronduOrder :TetraodontiformesSize :Max. 45 cmSpecimen :MRS/0344/89

**Distinctive Characters:** Dorsal fin with 3 spines and 24-26 rays. Anal fin with 21-23 rays. Pectoral fin with 14 rays. A deep groove anterior to eye. Region around lips fully scaled. 3-4 rows of spines posteriorly on side of body. Caudal fin rounded, the corners acute.

**Colour:** Black with very large white spots on lower half of body. Yellow markings around mouth, on face and fins. A yellow reticulum anteriorly on back.

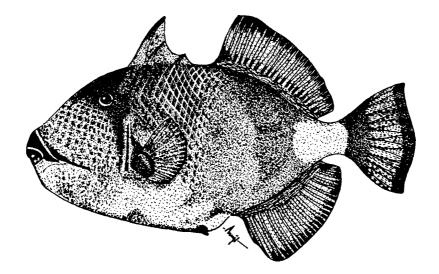
**Habitat and Biology:** Usually found on outer reef terraces with surge channels. Feeds on small benthic animals.

**Distribution:** Indo-Pacific.

**Remarks:** *Balistoides conspicillum* is one of the most strikingly coloured of all reef fishes. In consequence it fetches a high price in the aquarium trade.

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### **Balistoides viridescens** (Bloch and Schneider, 1801)



English Name : Titan triggerfishFamily :BALISTIDAELocal Name :MaaronduOrder :TetraodontiformesSize :Max. 75 cmSpecimen :MRS/P0343/89

**Distinctive Characters:** Dorsal fin with 3 spines and 24-26 rays. Anal fin with 23-24 rays. Pectoral rays 14-15. A deep groove before eye. 4 or 5 rows of small spines posteriorly on sides of body. Second dorsal and anal fins slightly elevated anteriorly. Caudal fin rounded to double emarginate.

**Colour:** Yellowish, the scale centers dark brown to dark olive, abruptly whitish posteriorly. A wedge-shaped blackish bar from top of head to gill opening, enclosing eye. A broad blackish streak on upper lip crossed by two narrow pale blue bands.

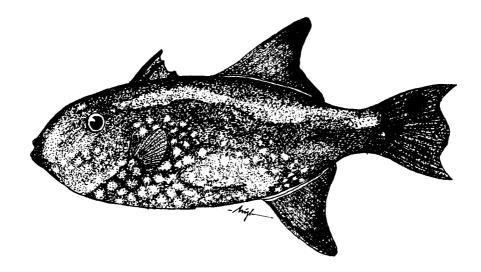
**Habitat and Biology:** Found in a wide ranging of habitats but mainly on reef slopes. Feeds on a wide variety of benthic invertebrates, including sea urchins, corals and molluscs.

**Distribution:** Indo-Pacific.

**Remarks:** Balistoides viridescens is fairly common in the Maldives and ranges widely from lagoons to deep reef slopes. Eggs are laid in nests on sandy or rubble patches on the slope. These are protected by the adults, which drive away any intruders including divers with great ferocity.

マンメグ

### Canthidermis maculatus (Bloch, 1786)



English Name : Ocean triggerfishFamily :BALISTIDAELocal Name :Oivaali ronduOrder :TetraodontiformesSize :Max. 50 cmSpecimen :MRS/P0132/87

**Distinctive Characters:** Dorsal fin with 3 spines and 23-27 rays. Anal fin with 20-23 rays. Pectoral fin with 14-15 rays. Mouth terminal. No enlarged scales above pectoral fin base forming distinct tympanum. Cheeks scaled and without longitudinal groove. A deep groove before eye, below nostrils.

**Colour:** Adults with body and head dark, lighter below with elongate white spots that can disappear with growth. All fins dark. Small juveniles with spots not confined to ventral surface.

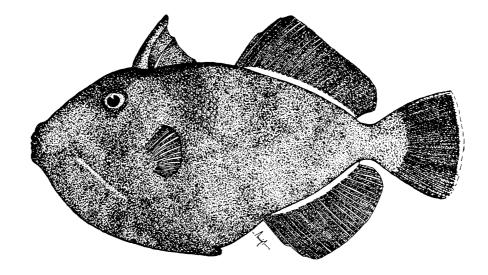
**Habitat and Biology:** Occurs in offshore waters. Epipelagic throughout its life. Adults as well as juveniles are often associated with drifting objects.

**Distribution:** Indo-West Pacific.

**Remarks:** Unlike other triggerfishes *Canthidermis maculatus* is most often encountered offshore, where it is frequently associated with drifting flotsam. It is, therefore, often seen by Maldivian fishermen, although there is no local market for this species so it is almost never caught. *C. rotundatus* is a synonym.

وَرَقَ فَهُمَاسِوَهِ ثَهُمَ مِهُودٍ 3 رَهُمَا وَهُودُ اللهِ 2 اللهِ 2 اللهِ وَوَدَة اللهِ وَهُمَا وَهُمَا وَهُمَا وَهُمَا وَهُمُ وَهُمَا وَهُمَا وَهُمَا وَهُمَا وَهُمُودُ اللهِ وَهُمَا وَهُمُ وَهُمَا وَهُمُ وَهُمُ وَهُمُ اللهُ وَهُمُ وَهُمُ اللهُ وَهُمُ وَمُودُ وَرُدُو اللهُ وَهُمُ وَهُمُ وَمُودُ وَمُودُ وَمُرَا وَهُمُ وَمُودُ وَمُرَا وَهُمُ وَمُودُ وَرُدُو اللهُ وَمُودُ وَرُدُو اللهُ وَمُودُ وَمُودُ وَمُودُ وَمُودُ وَمُودُ وَرُدُو اللهُ وَمُودُ وَمُودُودُ وَمُودُودُ وَمُودُ وَمُودُودُ وَمُودُودُ وَمُودُودُ وَمُودُودُ وَمُودُودُ وَمُودُ وَمُودُودُ وَمُودُودُودُ وَمُودُودُ وَمُودُودُ وَمُودُ

### Melichthys indicus (Randall and Klausewitz, 1973)



English Name :Indian triggerfishFamily :BALISTIDAELocal Name :Hindhu kalhu ronduOrder :TetraodontiformesSize :Max. 25 cmSpecimen :MRS/0339/89

**Distinctive Characters:** Dorsal fin with 3 spines and 30-34 rays. Anal fin with 29 rays. Pectoral fin with 14-16 rays. Caudal fin truncate or slightly rounded. Ridges on caudal peduncle not prominent.

**Colour:** Dark, almost black. White along bases of second dorsal and anal fins, and around caudal margin. Sometimes displays a rust brown patch behind spiny dorsal.

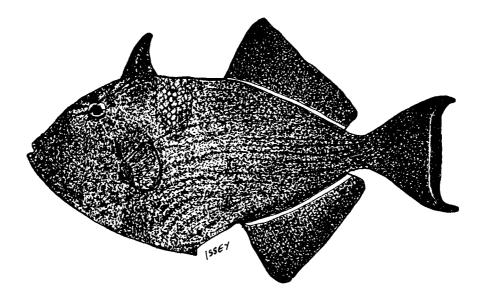
Habitat and Biology: Found in coral reef areas. Feeds well above the bottom, evidently on zooplankton.

**Distribution:** Indian Ocean.

**Remarks:** *Melichthys indicus* is one of a pair of very similar black trigger fishes. The other is *M. niger* (next page). In the field they are most easily differentiated on the basis of tail shape and colour. *M. niger* has an emarginate caudal fin that is all dark.

## 

### Melichthys niger (Bloch, 1786)



English Name :Black triggerfishFamily :BALISTIDAELocal Name :Kalhu ronduOrder :TetraodontiformesSize :Max. 35 cmSpecimen :MRS/P0350/89

**Distinctive Characters:** Dorsal fin with 3 spines and 32-35 rays. Anal fin with 28-31 rays. Pectoral fin with 15-17 rays. Prominent longitudinal ridges following scale rows on caudal peduncle. Caudal fin emarginate to lunate (except juveniles).

**Colour:** Dark blue-green to black. Blue-white lines at base of soft dorsal and anal fins. Submarginal blue line on caudal fin bends into lobes.

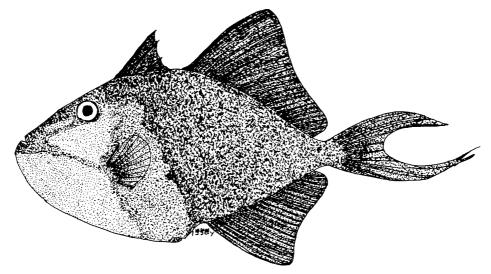
**Habitat and Biology:** Occurs on upper reef edge of outer slopes of seaward reefs. Feeds predominantly on calcareous algae; also feeds on zooplankton.

Distribution: Indo-Pacific.

**Remarks:** *Melichthys niger* is very similar in appearance to, and easily confused with *M. indicus* (previous page) *M. niger* is more widely distributed.

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### Odonus niger (Rüppell, 1837)



English Name :Redtoothed triggerfishFamily :BALISTIDAELocal Name :Vaalan ronduOrder :TetraodontiformesSize :Max. 40 cmSpecimen :MRS/0337/89

**Distinctive Characters:** Dorsal fin with 3 spines and 33-36 rays. Anal fin with 28-31 rays. Pectoral fin with 14-15 rays. Cheeks scaled. Margins of soft dorsal and anal fins distinctly concave. Caudal fin lunate, the lobes greatly prolonged in adults.

Colour: Body deep blue, sometimes very dark, or brownish, or greenish, Teeth red.

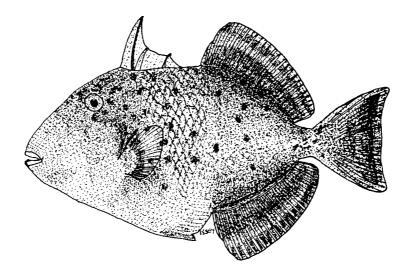
**Habitat and Biology:** Found on upper part of seaward reef below reef edge. Feeds mainly on zooplankton and also sponges.

Distribution: Indo-Pacific.

**Remarks:** *Odunus niger* is possible the most common Maldivian triggerfish. Large groups can be seen swimming up in the water column above the reef slope. At night, and when harassed, they take refuge in small crevices with just their turquoise scissor-like tail showing.

### 

### Pseudobalistes flavimarginatus (Rüppell, 1829)



English Name : Yellowmargin triggerfishFamily :BALISTIDAELocal Name :Vilu ronduOrder :TetraodontiformesSize :Max. 60 cmSpecimen :MRS/0347/89

**Distinctive Characters:** Dorsal fin with 3 spines and 24-27 rays. Anal fin with 23-25 rays. Pectoral fin with 15 or 16 rays. Deep groove anterior to eye. Shallow horizontal groove on cheek. Anterior part of cheek without scales; posterior part with small scales. Caudal peduncle with 5 or 6 rows of small spines. Caudal fin rounded in young, emarginate in adults, the lobes prolonged in large adults.

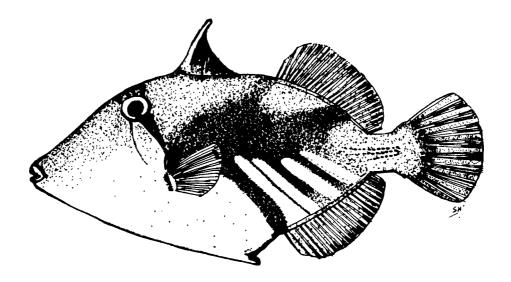
**Colour:** Pale yellowish brown. Scales with dark centres. Front of head often light yellow-orange. Margins of second dorsal, anal and caudal fins often yellowish.

**Habitat and Biology:** Found in wide-ranging habitats, but more common on sheltered reef areas with much sand. Feeds on benthic invertebrates.

**Distribution:** Indo-Pacific.

**Remarks:** *Pseudobalistes flavimarginatus* is one of two large triggerfishes commonly seen by divers in the Maldives. The other is *B. viridescens*. *P. flavimarginatus* nests in deep lagoon areas. Fortunately this species does not defend its nests as aggressively as *B. viridescens*, although some individuals can be very aggressive.

### Rhinecanthus aculeatus (Linneaus, 1758)



English Name : Picasso triggerfishFamily :BALISTIDAELocal Name : Gabulhi ronduOrder :TetraodontiformesSize :Max. 28 cmSpecimen :MRS/0054/86

**Distinctive Characters:** Dorsal fin with 3 spines and 24-26 rays. Anal fin with 21-23 rays. Pectoral fin with 12-14 rays. Head pointed; dorsal and ventral profiles nearly straight. 3 rows of forward curving spines on caudal peduncle. Caudal fin rounded to double emarginate, the corners regular.

**Colour:** Pale brown shading to white below. Complexly coloured with blackish, blue and yellow bands. Peduncular spines black edged with blue. Anus black.

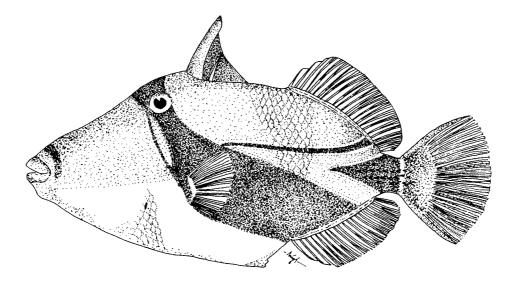
**Habitat and Biology:** Common on shallow lagoon reef environments dominated by sand. Omnivorous, feeding on a wide range of invertebrates, fishes and also algae.

**Distribution:** Indo-Pacific.

**Remarks:** *Rhinecanthus aculeatus* is a very common inhabitant on Maldivian reefs. It is often seen sleeping on its side at night and makes a whirring noise when startled. A popular aquarium fish.

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### Rhinecanthus rectangulus (Bloch and Schneider, 1801)



English Name : Reef triggerfishFamily :BALISTIDAELocal Name :Gabulhi fattaa ronduOrder :TetraodontiformesSize :Max. 25 cmSpecimen :MRS/0346/89

**Distinctive Characters:** Dorsal fin with 3 spines and 23-24 rays. Anal fin with 20-21 rays. Pectoral fin with 13-15 rays. No grooves infront of eyes. 4-5 rows of small forward curving spines posteriorly on body. Caudal fin rounded, the corners acute.

**Colour:** Ground colour olive brown above, pale below. Black band across body, and black triangular patch on caudal peduncle. Black areas partially outlined with green-yellow. Orange at base of pectoral.

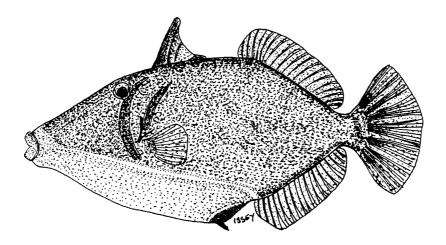
**Habitat and Biology:** Common in the shallow outer reef environments exposed to surge. Diet even more varied than *R. aculeatus*, feeding on a wide range of invertebrates, fishes and also algae.

**Distribution:** Indo-Pacific.

**Remarks:** *Rhinecanthus rectangulus* is readily distinguished from *R. aculeatus* (previous page), on the basis of colour pattern. Both are found in shallow areas, but *R. rectangulus* prefers more exposed locations. *R. rectangulus* is a very wary fish, hence difficult to approach under water.

### במצומשלת ב

### Sufflamen bursa (Bloch and Schneider, 1801)



English Name :Boomerang triggerfishFamily :BALISTIDAELocal Name :Dhon falhu ronduOrder :TetraodontiformesSize :Max. 20 cmSpecimen :MRS/0345/89

**Distinctive Characters:** Dorsal fin with 3 spines and 27-29 rays. Anal fin with 25-27 rays. Pectoral fin with 13-14 rays. Dorsal and ventral profiles of head nearly straight. Cheeks scaled. Prominent groove in front of the eye. Longitudinal scale ridges on posterior part of the body extending forward to the middle of the body. Caudal fin truncate to slightly rounded.

**Colour:** Greyish brown, pale below. A white line from corner of mouth to anal fin origin. Two dark curved bars posteriorly on head, which may be either yellow or black.

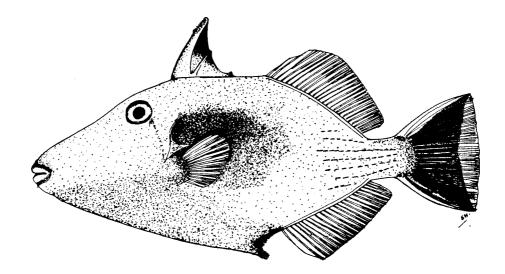
**Habitat and Biology:** Usually in reef flats and reef slopes. Omnivorous, feeding on algae and a wide variety of small benthic invertebrates.

**Distribution:** Indo-Pacific.

**Remarks:** Sufflamen bursa is a common inhabitant in the Maldivian reefs. It is readily distinguished from the similar sized and shaped S. chrysopterus (next page) by colour. S. chrysopterus is dark brown.

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### Sufflamen chrysopterus (Bloch and Schneider, 1801)



English Name :Flagtail triggerfishFamily :BALISTIDAELocal Name :Falhu ronduOrder :TetraodontiformesSize :Max. 20 cmSpecimen :MRS/055/86

**Distinctive Characters:** Dorsal fin with 3 spines and 26-28 rays. Anal fin with 23-26 rays. Pectoral fin with 12-14 rays. Deep groove before eye. Longitudinal rows of small spines following scale centers on about posterior third of body. Dorsal and anal fins slightly elevated anteriorly. Caudal fin truncate to slightly rounded with acute corners.

**Colour:** Dark brownish with one pale streak from eye to lower pectoral base and another short one above gill opening. Lower part of head and abdomen dark blue or purplish. Caudal fin brownish yellow, broadly edged in white.

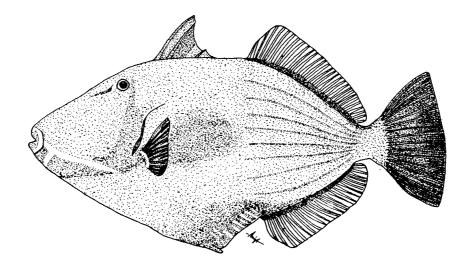
Habitat and Biology: Usually seen in sheltered reefs and lagoon. Feeds on benthic invertebrates.

**Distribution:** Indo-Pacific.

**Remarks:** Sufflamen chrysopterus is replaced in the Red Sea and Gulf of Oman by the closely related S. albicaudatus (Rüppell), which differs in having a broad white zone across basal part of caudal fin.

### 2 × 2 / 3 / 5 / 5

### Sufflamen fraenatus (Bloch and Schneider, 1801)



English Name :Brown triggerfishFamily :BALISTIDAELocal Name :Mushi ronduOrder :TetraodontiformesSize :Max. 38 cmSpecimen :MRS/0411/92

**Distinctive Characters:** Dorsal fin with 3 spines and 27-31 rays. Anal fin with 24-28 rays. Pectoral fin with 14-15 rays. Cheeks scaled. Deep groove in front of eye. Longitudinal scale ridges on posterior part of the body extending forward to the middle of the body. Caudal fin rounded in young, truncate to slightly emarginate in adults.

**Colour:** Brown to pale brown with a pale yellowish ring around mouth and a narrow pale yellowish band across chin. Juveniles with longitudinal dark brown lines.

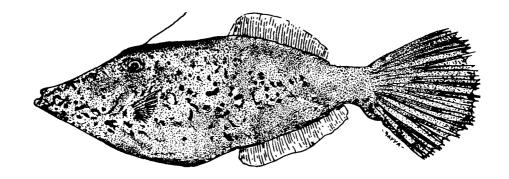
**Habitat and Biology:** Usually seen in depths greater than 25 m. Feeds mainly on sea urchins, heart urchins, brittle stars, fishes, bivalve molluscs, tunicates and crustaceans.

**Distribution:** Indo-Pacific.

**Remarks:** Sufflamen fraenatus is a somewhat deep dwelling species, being apparently most common in atoll basins. S. capistratus Shaw, is a synonym.

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### Aluterus scriptus (Osbeck, 1765)



English Name :Scrawled filefishFamily :MONACANTHIDAELocal Name :Fankaa fathironduOrder :TetraodontiformesSize :Max. 1 mSpecimen :MRS/0496/97

**Distinctive Characters:** Dorsal fin with 2 detached spines and 43-49 rays. First dorsal spine originates over eye. Anal fin with 46-52 rays. Pectoral fin with 13-15 rays. Body elongate and very compressed. Profile of snout concave. Mouth small and upturned. Caudal peduncle deeper than long. Caudal fin rounded and long (longer than head), posterior edge often ragged.

Colour: Olive brown to grey with irregular blue spots and short lines and small black spots.

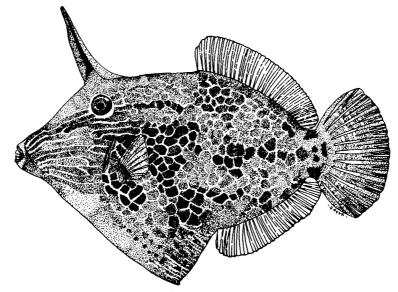
**Habitat and Biology:** Seen in lagoons or on outer reef slopes to depths of about 20 m. A shy and solitary species, but occasionally observed in small groups. Feeds on a wide variety of benthic organisms including algae, sea grasses, hydrozoans, gorgonians, anemones and tunicates.

**Distribution:** Circumtropical

**Remarks:** Aluterus scriptus is one of the largest of the filefishes. It is similar to A. monoceros, but A. monoceros has a convex dorsal head profile and a bulbous ventral head profile, a much smaller caudal peduncle depth and also a much shorter caudal fin.

### وُسُرِيًا وُمِ بُرْسِ فَي

### Cantherhines paradilis (Rüppell, 1837)



English Name : Wirenet filefishFamily : MONACANTHIDAELocal Name : Dhaagandu fathironduOrder : TetraodontiformesSize : Max. 21 cmSpecimen : MRS/0348/89

**Distinctive Characters:** Dorsal fin with 2 detached spines and 32-36 rays. Anal fin with 29-32 rays. Pectoral fin with 12-14 rays. Snout short. Dorsal profile of head slightly concave. First dorsal spine not long. No spines posteriorly on body, but males with a dense patch of setae on side of caudal peduncle.

**Colour:** Varying from dark brown or mottled dark brown to light grey with numerous brownish orange spots. Faint narrow stripes on head. A small white spot just behind rear base of soft dorsal fin.

**Habitat and Biology:** Usually seen solitary in outer reef, seagrass and seaweed beds to depths of about 20 m. Feeds on benthic organisms.

**Distribution:** Indo-Pacific.

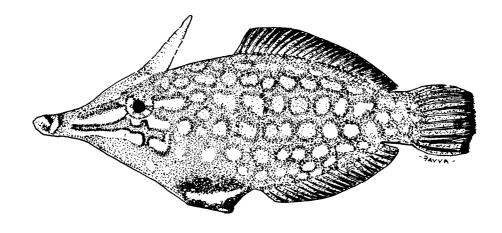
**Remarks:** Cantherhines paradilis is closely related to C. sandwichensis of Hawaii, and C. pullus of the Atlantic. A wary fish, like others of the same genus.

### مركس في فري مرسوف

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وَرُوْ هُمُرَرُوْمٍ تَوْمِرُورٍ وَرِشْ رُشْرَ لَا رَمْرَدُو لَا رُدُ رُدُ وَوَ دُوْ وَوَوْ دُوْرُو دُورُو دُورُونُو دُورُو دُورُو دُورُونُو دُورُونُو دُورُونُو دُورُونُو دُورُونُو دُورُونُو دُورُو دُورُو دُورُونُو دُورُو دُورُونُو دُورُونُو دُورُونُو دُورُونُو دُورُونُو دُورُونُو دُو

### Oxymonacanthus longirostris (Bloch and Schneider, 1801)



English Name : Longnose filefishFamily : MONACANTHIDAELocal Name : Thundhigu fathironduOrder : TetraodontiformesSize : Max. 10 cmSpecimen : MRS/0497/97

**Distinctive Characters:** Dorsal fin with 2 detached spines and 32-35 rays. Anal fin with 29-32 rays. Pectoral fin with 11 or 12 rays. Dorsal and ventral profiles concave. Snouts lender and protruding.

Colour: Green with numerous dark edged orange spots. A black blotch on caudal fin.

**Habitat and Biology:** Occurs on protected areas of reef edge and slope to depths of 30 m. Often seen in pairs and sometimes in small groups amongst branched or tabular colonies. Feeds on coral polyps.

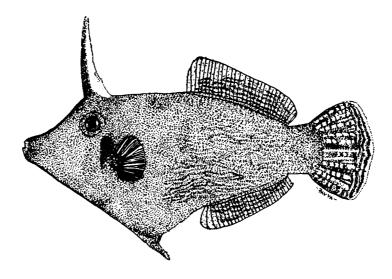
Distribution: Indo-Pacific.

**Remarks:** Oxymonacanthus longirostris can easily be distinguished from other Maldivian filefishes by its extremely long snout. It is closely related to O. halli, which is endemic to Red Sea. However, O. halli differs slightly in colour and has a lower fin ray count. A popular aquarium fish.

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### Pervagor janthinosoma (Bleeker, 1854)



English Name: Redtail filefish

Local Name: Dhon kothari fathirondu

Order: Tetraodontiformes

Size: Max. 16 cm

Specimen: MRS/0282/88

**Distinctive Characters:** Dorsal fin with 2 detached spines and 29-34 rays. Anal fin with 26-30 rays. Pectoral fin with 11-13 (usually 12) rays. Snout short. Dorsal profile concave. First dorsal spine origin over centre or front half of eye. A row of large laterally directed barbs along each lateral edge. Shallow groove for receiving first dorsal spine. Caudal peduncle short and broad.

**Colour:** Orange-brown with irregular fine longitudinal dark brown lines on body. A dark blotch over gill opening. Caudal fin orange with small yellow spots, the outer border with blue and yellow lines.

Habitat and Biology: Usually seen in shallow coral reefs to 20 m depth. A secretive species.

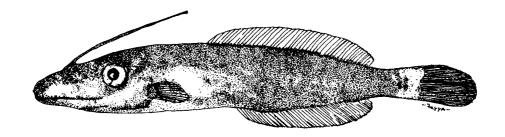
**Distribution:** Indo-Pacific.

**Remarks:** *Pervagor janthinosoma* is closely related to *P. alternans* and *P. aspricaudus*. *P. alternans* differs by having a bright yellow ring around eye. *P. aspricaudus* has numerous tiny black spots rather than narrow black lines on the sides.

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### Pseudalutarius nasicornis (Temminck and Schlegel, 1850)



English Name :Rhino filefishFamily :MONACANTHIDAELocal Name :Hima fathironduOrder :TetraodontiformesSize :Common to 12 cm; max. 18 cmSpecimen :MRS/0370/91

**Distinctive Characters:** Dorsal fin with 2 detached spines and 43-50 rays. Anal fin with 41-46 rays. Pectoral fin with 11 rays. First dorsal spine very slender, origin anterior to eye. Pelvic fin rudiments absent. Body slender in juveniles, deep in adults.

**Colour:** Ground colour pale brown to grey, two brown stripes on body. Adults with closely set yellow spots on head and body, soft dorsal and anal pale yellow, caudal dark brown.

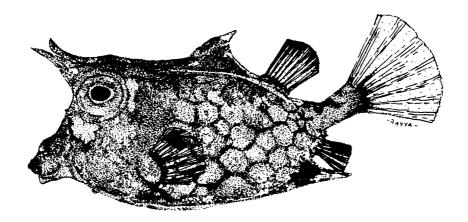
**Habitat and Biology:** In Maldives, known so far only from depths greater than 40 m, inside North Malé Atoll.

**Distribution:** Indo-Pacific.

**Remarks:** *Pseudalutarius nasicornis* appears to be relatively rare in Maldives, but that may be partly because of its cryptic colouration and behaviour and its relatively deep-dwelling habits.

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### Lactoria fornasini (Bianconi, 1846)



English Name: Backspine cowfish
Local Name: Kashi gonu
Order: Tetraodontiformes
Size: Max. 23 cm
Specimen: MRS/0437/94

**Distinctive Characters:** Dorsal fin with 9 rays. Anal fin with 9 rays. Pectoral fin with 11-12 rays. Carapace quadrangular in cross section, but with a median ridge and large thorn-like spine in the middle of back. Bottom of carapace slightly convex. A pair of sharp horns anteriorly from head at level with upper edge of eye. A second short pair posteriorly. Caudal fin rounded.

Colour: Light brown with blue spots or narrow irregular blue bands. Fins pale.

**Habitat and Biology:** Commonly seen on sand, rubble or weedy areas with patchy corals to depths of about 30 m. Occurs singly or in pairs.

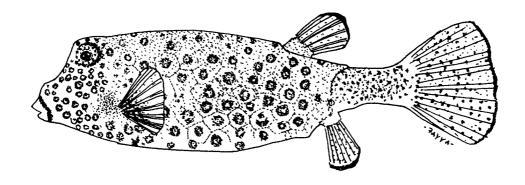
**Distribution:** Indo-Pacific.

**Remarks:** *Lactoria fornasini*, like other cowfishes and box fishes is a slow swimmer. They propel themselves by a sculling action of the dorsal and anal fins; the caudal fin is brought into action when they want to move faster. Appears to be rare in Maldives.

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وَرَى هُمَارِرَمُرُوَّ مُمَارِوَهٍ تَهُمِهُ وَدِ 9 وَلَمَارِرَمُرُوَّ هُرَ هُرَوْمُ مُوَ مُرَّ مُرَّ مُرَّ وَرَ وَلَمَارِرَمُرُوْ مَا وَوَهُوَكُوْرُ اللَّهُ مَا اللَّهُ وَلَمَارِرَمُرُوْ وَرَى سِرِ وَكُوْرُو ثَلَى رَمُرُو الورْدُ وَهُرَا وَهُ مِرِدُوْرُونُ وَوَ وَرُوْدِ اللَّهُ وَلَا مُرَاوِرُو الْمُرْدُودُ وَرُدُ اللَّهُ وَالْمُ وَسُولًا لَوَرُدُودُونُونُ وَوَرَدُ مِنْ وَمِ وَرُودُ مَنْ الْوَدُ مَنْ الْمُؤْدُودُ وَرُدُ وَرُدُو وَرُدُ اللَّ

### Ostracion cubicus Linnaeus, 1758



English Name : Yellow boxfishFamily : OSTRACIIDAELocal Name : GonuOrder : TetraodontiformesSize : Max. 40 cmSpecimen : MRS/0040/86

**Distinctive Characters:** Dorsal fin with 9 rays. Anal fin with 9 rays. Pectoral fin with 11 rays. Carapace quadrangular in cross section, the sides concave. Body becoming more elongate with growth. Large adults with a bump anteriorly on snout. Caudal fin rounded.

**Colour:** Small juveniles bright yellow with small black spots. Larger fish brownish yellow with one white spot edged in black or rimmed with small black spots on each polygonal plate. Largest fish purplish brown, spots on carapace faint or absent, the grooves between polygonal plates yellow, specially ventrally on cheek. Fins with small dark spots on rays.

**Habitat and Biology:** Common on reef edge and slope to depths of about 25 m. Solitary and shy species, always seek shelter below overhangs in the reef. Omnivorous.

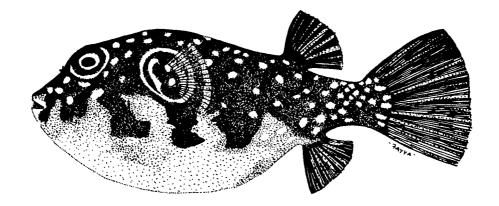
**Distribution:** Indo-Pacific.

**Remarks:** *Ostracion cubicus*, like other boxfishes produce a skin toxin when alarmed. Previously, recorded as *O. tuberculatus* Linnaeus, in the Catalogue of Fishes of the Maldives, Vol. 1, page 102.

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### Arothron hispidus (Linnaeus, 1758)



English Name :Whitespotted pufferfishFamily :TETRAODONTIDAELocal Name :Lahjehi koliOrder :TetraodontiformesSize :Max. 48cmSpecimen :MRS/P0482/97

**Distinctive Characters:** Dorsal fin with 10-11 rays. Anal fin with 10-11 rays. Pectoral fin with 17-19 rays. Small spinules on head and body except snout and posterior caudal peduncle. Nostril consisting of two fleshy flaps from a common base (characteristic of the genus). Caudal fin rounded.

**Colour:** Greyish to greenish brown with small white spots on head, back and sides. 1 or 2 yellow rings and several yellow spots around pectoral fin. 2-5 bars across sides, always a short dark bar below eye and another below pectoral fin.

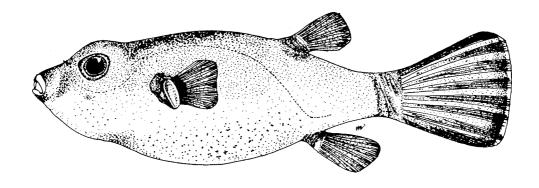
**Habitat and Biology:** Generally found in shallow protected areas to depths of 25 m. Juveniles seen in weedy areas. Diet highly varied; feeding on molluscs, tunicates, sponges, corals, anemones, crabs, tubeworms, sea urchins, brittle stars and starfishes (including crown-of-thorns), and hydroids.

**Distribution:** Indo-Pacific and Eastern Pacific.

**Remarks:** Arothron hispidus, like other pufferfishes, is highly poisonous. The degree of toxicity of puffer fishes varies greatly with the species and apparently also with geographical area and season.

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### Arothron immaculatus (Bloch and Schneider, 1801)



English Name :Blackedged pufferfishFamily :TETRAODONTIDAELocal Name :FukkoliOrder :TetraodontiformesSize :Max. 30 cmSpecimen :MRS/0001/86

**Distinctive Characters:** Dorsal fin with 9-10 rays. Anal fin with 9-10 rays. Pectoral fin with 15-16 rays. Body round in cross-section. Nasal organs of two tentacles joined at the base. The body except posterior part of tail, base of anal and snout covered with slender spines. Teeth fused into bony plates.

**Colour:** Brownish above, lighter below. Upper and lower edge and margin of caudal fin blackish. No markings on body except dark blotch at pectoral fin base.

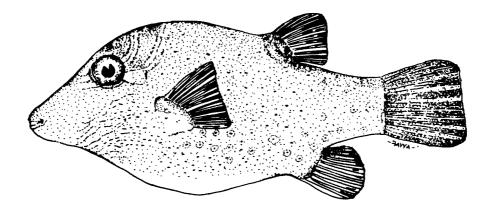
**Habitat and Biology:** Generally found in shallow protected waters, to depths of 15 m. A solitary species. Sometimes swims over unsheltered sand and sea grass areas.

**Distribution:** Indo-West Pacific.

**Remarks:** Arothron immaculatus, like other pufferfishes, is capable of inflating its body into a spiny ball to deter predators. They also produce powerful toxins in their tissues, especially in the liver and in the ovaries. Eating of these fishes has resulted in serious illness and sometimes death. Previously recorded under the genus *Tetraodon* in the Catalogue of Fishes of the Maldives, Vol. 1, page 146.

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### Canthigaster amboinensis (Bleeker, 1856)



English Name :Ambon sharpnosed pufferFamily :TETRAODONTIDAELocal Name :Haluvi thaakihaa koliOrder :TetraodontiformesSize :Common to 8 cm; max. 15 cmSpecimen :MRS/0245/88

**Distinctive Characters:** Dorsal fin with 11-12 rays. Anal fin with 10-11 rays. Pectoral fin with 16-17 rays. A ridge of skin mid-dorsally. Snout conical and attenuate. Caudal fin slightly rounded.

**Colour:** Brown dorsally on head and body shading to whitish ventrally with small pale blue spots on body and basally on caudal fin. Small dark brown spots on lower side mixed with blue, and blue lines radiating from eye. Numerous close set small pale blue spots or irregular lines on cheek.

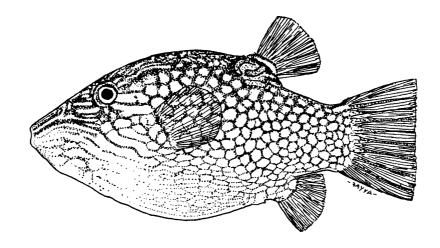
**Habitat and Biology:** Occurs in shallow outer reef areas, often in the lower reaches of the surge zone to depths of 10 m. Omnivorous; feeding on algae and a wide variety of benthic animals.

**Distribution:** Indo-Pacific.

**Remarks:** Canthigaster amboinensis is one of the faster swimming species of the genus. They have a repelling substance in their skin, which protects them from predators.

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### Canthigaster janthinoptera (Bleeker, 1855)



English Name: Honeycomb sharpnosed puffer
Local Name: Thijjehi thaakihaa koli
Size: Max. 7.5 cm
Family: TETRAODONTIDAE
Order: Tetraodontiformes
Specimen: MRS/0246/88

**Distinctive Characters:** Dorsal fin with 9-10 (usually 9) rays. Anal fin with 9-10 (usually 9) rays. Pectoral fin with 16-18 (usually 17) rays.

**Colour:** Brown orange with close set pale blue-green spots on head and body and blue-green lines radiating from eyes. A dark occllus sometimes present at base of dorsal fin. Fins largely unmarked.

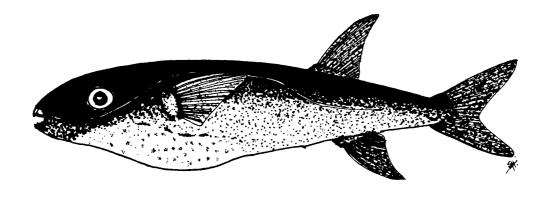
Habitat and Biology: Usually found in caves. A cryptic species.

**Distribution:** Indo-Pacific.

**Remarks:** Canthigaster janthinoptera is closely related to the Hawaiian endemic C. jactator (Jenkins) and the Tropical Eastern Pacific species, C. punctatissima (Günther). These small pufferfishes (or tobies) enjoy some freedom from predation as a result of their repelling skin toxin.

# הלה לעלעה הלאה

### Lagocephalus lagocephalus (Linnaeus, 1758)



English Name :Pelagic pufferfishFamily :TETRAODONTIDAELocal Name :Raagondi koliOrder :TetraodontiformesSize :Max. 60 cmSpecimen :MRS/0014/86

**Distinctive Characters:** Dorsal fin with 13-15 rays. Anal fin with 11-13 rays. Pectoral fin with 13-16 rays. Body smooth except for well developed spinules on belly from chin to anus. In adults lower caudal fin lobe is longer than upper. Caudal fin emarginate.

**Colour:** Adults dark green, brownish grey, or blue dorsally, white below. Juveniles to about 18 cm have about 9 uniform bars on back from eye to dorsal fin; dark spots on front and middle of belly and on side near pectoral base in fish less than 33 cm.

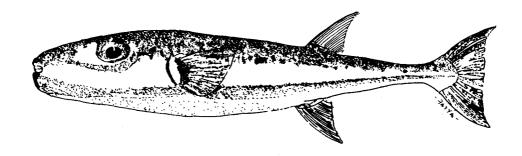
Habitat and Biology: Pelagic and oceanic, but occasionally coming closer to reefs.

**Distribution:** Circumglobal in warm and temperate seas.

**Remarks:** Although *Lagocephalus lagocephalus* is not common in Maldives, it is occasionally caught with frigate tuna (*Auxis thazard*). Previously recorded under the family Lagocephalidae in the Catalogue of Fishes of the Maldives, Vol. 1, page 86. A highly poisonous fish. Is thought to have been responsible for some cases of fatal fish poisoning in Maldives in the past.

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### Lagocephalus sceleratus (Forster, 1788)



English Name:Silverstripe pufferfishFamily:TETRAODONTIDAELocal Name:Giulhu koliOrder:TetraodontiformesSize:Max. 85 cmSpecimen:MRS/P0484/97

**Distinctive Characters:** Dorsal fin with 10-12 rays. Anal fin with 8-11 rays. Pectoral fin with 15-18 rays. Body almost square in cross-section. Body and caudal peduncle elongate, depressed. Spinules on back extend past dorsal fin almost to caudal fin. Caudal fin moderately lunate.

**Colour:** Dorsal surface greenish with dark brown or black spots. Belly white. A broad silver band along sides from mouth to caudal fin. A silver blotch in front of eye. Pectoral base and inside of gill opening black.

Habitat and Biology: Pelagic and oceanic, but occasionally coming closer to reefs.

**Distribution:** Indo-West Pacific.

**Remarks:** Lagocephalus sceleratus is one of the largest species of the family. It is not common in Maldives. Previously recorded under the family Lagocephalidae. A highly poisonous fish. The skin, liver, and particularly ovaries of most puffer (perhaps all) species contain an extremely potent alkaloid poison called tetrodotoxin.

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#### **GLOSSARY**

**Adipose eyelid:** immovable transparent outer covering or partial covering of the eye of some groups of bony fishes, such as mullets and trevallies, which performs protective and streamlining functions.

**Adipose fin:** a small fleshy fin without rays found on the back behind the dorsal fin of some primitive teleost fishes such as the lizardfishes.

**Antrorse:** pointing or turned anteriorly.

**Antrorse spine:** a small bony projection directed anteriorly (present on the lower preopercular margin of some serranids).

**Anus:** the posterior external opening of the digestive tract from which wastes are voided; sometimes called the vent.

**Axil:** the acute angular region between a fin and the body; usually used in reference to the underside of the pectoral fin toward the base. Equivalent to the armpit of man.

**Band:** an oblique or irregular marking (compare "bar" below).

**Bar:** an elongate colour marking of vertical orientation, the size of which is usually more-or-less straight (although they need not be parallel).

**Barbel:** a slender tentacle-like protuberance of sensory function which is often seen on the chin of some fishes such as goatfishes and some of the croakers.

**Benthic:** referring to the benthos, the fauna and flora of the sea bottom.

**Benthopelagic:** living near, or ecologically associated with the bottom but also often found a substantial distance above the benthos during part of the day.

**Bifurcate:** split or divided into two parts; bifid.

Biserial: arranged in two separate rows or series.

**Body depth:** greatest depth of body. Body depth at origin of pectoral fins, pelvic fins and first anal fin is sometimes also used.

**Branched tubules:** refers to the lateral-line scale tubules which divide into two or more branches.

**Canine:** a prominent slender sharp-pointed tooth.

**Carapace:** a rigid shield encasing the body.

Carnivore: a flesh-eating animal.

**Caudal fin:** the tail in. The term tail alone generally refers to that part of a fish posterior to anus.

**Caudal peduncle:** the part of the body between the posterior basal parts of the dorsal and anal fins and the base of the caudal fin. The usual vertical measurement is the least depth; the length measurement herein is horizontal, generally from the rear base of the anal fin.

**Cephalopod:** a group of molluscs, including squid and octopus, which have a tubular siphon under the head and a group of muscular suckered arms around the mouth.

**Cheek:** area between the eye and the edge of the preopercle bone.

**Chondrichthyes:** a class of the vertebrates which includes the cartilaginous fishes (sharks, rays and chimaeras).

**Ciguatera:** a type of poisoning from eating coral-reef fishes; unpredictable and sometimes fatal; known in the western Indian Ocean only at Mauritius and Reunion islands.

**Cirrus:** a small slender flexible fleshy protuberance; the plural is cirri.

**Compressed:** laterally flattened; often used in reference to the shape of the body - in this case deeper than wide.

**Continental shelf:** the sea bottom from the shore out to a depth of 200 m.

**Copepods:** tiny planktonic crustaceans of major importance in marine food chains; some species are parasitic.

**Corselet:** the large thick scales that cover the anterior part of the body in advanced scombrids.

**Crenulate:** wavy or scalloped, in reference to the shape of an edge (as of a lip).

**Crustacean:** an animal of Class Crustacea, Phylum Arthropoda; includes crabs, lobsters, shrimps and copepods.

**Ctenoid scales:** scales of bony fishes which have tiny tooth-like projections along the posterior margin and part of the exposed portion. Collectively these little teeth (or ctenii) impart a rough texture to the surface of the scales.

**Cuspidate:** bearing a pointed projection (cusp); generally used in reference to shark teeth with more than one cusp.

**Cycloid scales:** scales of bony fishes, the exposed surfaces and edges which lack any small tooth-like projections; they are, therefore, smooth to the touch.

**Demersal:** sinking to or living on the sea bottom.

**Denticles:** tooth-like projections such as the scales which cover the bodies of cartilaginous fishes.

**Denticulate:** having the appearance of teeth or teeth-like structures.

**Depressed:** dorsoventrally flattened. The opposite in body shape of compressed.

**Depth:** vertical measurement of the body of a fish; most often employed for maximum height of body excluding fins.

**Distal:** outward from the point of attachment; the opposite of proximal.

**Diurnal:** pertaining to the daytime, active during the day.

**Dorsal:** toward the back or upper part of the body; the opposite of ventral.

**Dorsal fin:** a median fin along the back which is supported by rays. When there are two or more dorsal fins the most anterior one is designated the first.

**Double emarginate:** with a double-notched margin.

**Echinoderm:** an aquatic marine animal of the Phylum Echinodermata; radially symmetrical with a skeleton composed of calcareous plates (may be reduced to spicules); many move via their numerous tube feet; includes starfishes, brittle stars, sea urchins and sea cucumbers.

**Elasmobranch:** a subclass of cartilaginous fishes including sharks, skates and rays.

Elongate: extended or drawn out.

**Emarginate:** concave; used to describe the posterior border of a caudal fin which is inwardly curved.

**Endemic:** native; in reference to an animal or plant restricted to a certain area.

**Epipelagic:** the upper region of the open ocean extending from the surface to depths of around 200 m.

**Esca:** the bait or lure of lophiiform fishes (see illicum).

Falcate: sickle-shaped; used to describe the shape of fins.

**Family:** a major entity in the classification of animals and plants which consists of a group of related genera. Family words end in "idae", such as Gobiidae for the goby family; when used as an adjective, the "ae" is dropped, thus gobid fish.

**Fang:** a long sharp tooth situated in the frontal part of the upper jaw, by which the prey is seized.

Filamentous: thread-like.

**Finlets:** small individual fins posterior to second dorsal and anal fins.

**Fin membrane:** the thin membranes between the spines of the first dorsal fin.

**Fork length:** the straight-line distance from the front of the snout to the distal end of the shortest middle caudal fin ray.

**Forked:** inwardly angular; used in describing the shape of a caudal fin which is divided into two equal lobes, the posterior border of each of which is relatively straight.

**Fusiform:** spindle-shaped; used in reference to the body shape of a fish which is cylindrical or nearly so and tapers toward both ends.

**Gas bladder:** a tough-walled gas-filled sac lying in the upper part of the body cavity of many bony fishes just beneath the vertebral column, the principal function of which is to offset the weight of the heavier tissues, particularly bone. The organ is also called the swim bladder.

**Genus:** a group of closely related species; the first part of the scientific name of an animal or plant. The plural is genera.

**Gill arch:** the bony and cartilaginous support for the gill filaments and gill rakers. Normally there are four pairs of gill arches in bony fishes.

Gill slits: gill openings.

**Gill opening:** the opening posteriorly and often also ventrally on the head of fishes where the water of respiration is expelled. Bony fishes have a single such opening on each side whereas cartilaginous fishes (sharks and rays) have five to seven. The gill openings of sharks and rays are called gill slits.

**Gill rakers:** stout protuberances of the gill arch on the opposite side from the red gill filaments; they function in retaining food organisms. Gill rakers vary greatly in number and length and are important in the classification of fishes.

Gonads: reproductive organs.

**Gorgonian:** a sessile animal of the Subclass Alcyonaria, Class Anthozoa, Phylum Coelenterata; includes sea fans and sea whips.

**Habitat:** the place where a species normally lives.

**Head length:** the straight-line measurement of the head taken from the front of the upper lip to the membranous posterior end of the operculum.

**Herbivore:** a plant-feeding animal.

Holothurian: sea cucumber, an elongate soft-bodied relative of the starfish.

**Homonym:** the scientific name of an organism which is the same as that given to another organism; the second of these two identical names is invalid.

**Illicium:** the "fishing pole" and "lure" of lophiiform (pediculate) fishes which is used to attract prey close to the mouth.

**Incisiform:** chisel-like; used to describe teeth which are flattened and truncate with sharp edges like the front teeth of some mammals such as man.

**Inferior:** the position of the mouth when it is on the underside of the head.

**Inferior tail ridge:** a bony ridge along the lower edge of the tail in pipefishes.

**Inferior trunk ridge:** a bony ridge along the lower edge of the trunk of the body in pipefishes.

**Interdorsal ridge:** a tough fold of skin that runs along the middle of the back between the dorsal fins of some sharks.

**Interopercle:** one of the bones comprising the operculum; bordered anterodorsally by the preopercle and posterodorsally by the opercle and subopercle.

**Interorbital space:** the region on the top of the head between the eyes; measurements maybe taken of the least width, either fleshy (to the edges of the orbits) or bony (between the edges of the frontal bones which rim the orbits).

**Interpelvic process:** a fleshy process between the inner edges of the pelvic fins. The process may be single or bifid, small or large.

**Invertebrate:** An animal lacking a vertebral column; includes the vast majority of animals on earth such as the corals, the worms and the insects.

**Isthmus:** the throat region of a fish which extends forward from the ventral part of the chest (thorax) and narrows anteriorly.

**Keel:** a lateral strengthening ridge posteriorly on the caudal peduncle or base of the caudal fin; typically found on swift swimming fishes with a narrow caudal peduncle and a broadly lunate caudal fin.

Labial: pertaining to the lips.

**Labial furrows:** grooves around the outer edges of the lips that are prominent in some sharks.

**Lanceolate:** lance-shaped, hence gradually tapering to a point; used to describe a caudal fin with very long middle rays. An unusual fin shape most often seen among the gobies.

**Lateral:** referring to the side or directed toward the side; the opposite of medial.

**Lateral line:** a sensory organ of fishes which consists of a canal running along the side of the body and communicating via pores through scales to the exterior; functions in perceiving low frequency vibrations, hence provides a sense which might be termed "touch at a distance".

**Lateral-line scales:** the pored scales of the lateral line between the upper end of the gill opening and the base of the caudal fin. The count of this series of scales is of value in the description of fishes. Also of value at times is the number of scales above the lateral line (to the origin of the dorsal fin) and the number below the lateral line (to the origin of the anal fin).

Lateral trunk ridge: a bony ridge along the middle part of the anterior body of pipefishes.

**Lower limb:** refers either to the horizontal margin of the preopercle or to the ventral part of the gill arch.

**Lunate:** sickle-shaped; used to describe a caudal fin which is deeply emarginate with narrow lobes.

**Maxilla:** a dermal bone of the upper jaw which lies posterior to the premaxilla. In the higher fishes the maxilla is excluded from the gape, and the premaxilla bears the teeth.

**Median fins:** the fins in the median plane, hence the dorsal, anal and caudal fins.

**Mesopelagic:** the region of the open ocean below the epipelagic zone, between the depths of around 200 m to 1000 m.

**Midlateral scales:** refers to the longitudinal series of scales from the upper edge of the operculum to the base of the caudal fm. Generally, used for fishes without a lateral line.

**Mimic:** an organism that closely resembles another, usually unrelated, organism which is protected from predation for same reason.

**Molariform:** shaped like a molar, hence low, broad and rounded.

**Mollusc:** an animal of the Phylum Mollusca; unsegmented with a muscular "foot" and visceral mass; often protected by one or two shells; includes gastropods (snails and nudibranchs), pelecypods (bivalves such as clams and oysters), cephalopods (such as squids and octopuses) and amphineurans (chitons).

**Mucus:** a slimy substance secreted by the skin of fishes.

**Naked:** without scales.

**Nape:** the dorsal region of the head posterior to the occiput.

Nasal barbel: tentacle-like protuberance located close to the nasal opening.

**Nasal fossa:** cavity or pit containing the nasal organ.

Nasoral groove: a cleft or furrow between the nostril and mouth in some sharks.

**Neritic:** the shallow pelagic zone over the continental shelf.

**Nicitating eyelid:** a moveable transparent membrane which serves to protect the eye of elasmobranch fishes.

**Nictitating membrane (nictitans):** the movable inner eyelid of sharks.

**Nocturnal:** active at night.

**Oceanic:** pertaining to the open ocean beyond the continental shelf.

Ocellus: eye-like marking with ring of one colour surrounding spot of another.

**Omnivore:** an animal which feeds on both plant and animal material.

**Opercle:** the large bone which forms the upper posterior part of the operculum; often bears one to three backward-directed spines in the higher fishes.

**Operculum:** gill cover; comprising of the following four bones; opercle, preopercle, interopercle and subopercle.

**Orbital:** referring to the orbit or eye.

**Order:** a major unit in the classification of organisms; an assemblage of related families. The ordinal word ending in the Animal Kingdom is "iformis".

**Origin**: the beginning; often used for the anterior end of the dorsal or anal fin at the base. Also used in zoology to denote the more fixed attachment of a muscle.

**Ovary:** the female reproductive organ that produces eggs.

**Oviparous:** producing ova (eggs) that hatch after leaving the body of the mother; the mode of reproduction of the great majority of bony fishes.

**Ovoviviparous:** producing eggs which hatch within the body of mother; mode of reproduction of most sharks and rays.

**Paired fins:** collective term for the pectoral and pelvic fins.

**Palatine:** a paired lateral bone on the roof of the mouth lying between the vomer and the upper jaw; the presence or absence of teeth on this bone is of significance in classification of fishes.

Papilla: a small fleshy protuberance.

**Pectoral fin:** the fin usually found on each side of the body behind the gill opening; in primitive fishes such as herrings, this pair of fins is lower on the body than in advanced forms.

**Pelagic:** pertaining to the open sea (hence not living inshore or on the bottom); oceanic.

**Pelvic fin:** one of a pair of juxtaposed fins ventrally on the body in front of the anus; varies from abdominal in position in primitive fishes such as herrings to the more anterior locations termed thoracic or jugular in advanced fishes. It is sometimes called the ventral fin.

**Perinasal groove:** cleft or furrow around the nasal opening in some sharks. Also called circumnarial groove.

**Plankton:** collective term for pelagic animals and plants that drift with ocean currents; many are motile but are too small or swim too feebly or aimlessly to resist the sweep of the current. By contrast, the animal of the nekton are independent of water movement.

**Polychaete:** an animal of Class Polychaeta of Phylum Annelida; a segmented worm with setae (bristles), which may move about freely or line (permanently in a tube. Polychaete is from the Greek meaning many hairs or bristles.

**Polyp:** the sedentary form of coelenterate animals consisting of a tubular body with one external opening (the mouth) rimmed with tentacles; may be one of a colony; the soft part of a living coral.

**Posterior:** the rear of hind portion.

**Predator:** an animal that captures and eats other animals.

**Predorsal scales:** the scales on the midline in front of the dorsal fin origin. These scales are counted as the scale rows which intersect the midline from the anterior point of the dorsal fin to the anterior point of the supratemporal band of scales.

**Premaxilla:** the more anterior bone forming the upper jaw. In the higher fishes it extends backward and bears all of the teeth of the jaw. It is this part of the upper jaw which can be protruded by many fishes.

**Preopercle:** a boomerang-shaped bone, the edges of which form the posterior and lower margins of the cheek region; it is the most anterior of the bones comprising the gill cover. The upper vertical margin is sometimes called the upper limb, and the lower horizontal edge the lower limb; the two limbs meet at the angle of the preopercle.

**Preorbital:** the first and usually the largest of the suborbital bones; located along the ventroanterior rim of the eye. Sometimes called the lachrymal bone.

**Produced:** drawn out to a point; lengthened.

Protrusile, protrusible: capable of being thrust out or extended forwards.

**Proximal:** toward the centre of the body; the opposite of distal.

Ray: the supporting bony elements of fins; includes spines and soft rays.

**Rhomboid:** wedge-shaped; refers to a caudal fin in which the middle rays are longest and the upper and lower portions of the terminal border of the fin are more-or-less straight; essentially the opposite of forked. It is an uncommon fin shape.

**Rostrum:** a projecting snout or beak; protracted anterior part of the skull in sharks and rays.

**Rounded:** refers to a caudal fin in which the terminal border is smoothly convex.

**Rudiment:** a structure so deficient in size that it does not perform its normal function; often used in reference to small nodular gill rakers at the ends of the gill arches.

Salp: a planktonic tunicate.

**Sargassum:** brown algae that drift in the open ocean.

**Seta:** a bristle or bristle-like structure; the plural is setae.

**Scute:** an external bony plate or enlarged scale.

**Segmented rays:** the soft rays of the fins which bear cross striations, at least distally.

**Serrate:** notched along a free margin; like the edge of a saw.

**Sexual dichromatism:** a condition wherein the two sexes of the same species are of different colour.

**Snout:** the region of the head in front of the eye. Snout length is measured from front of the upper lip to the anterior edge of the eye.

**Soft ray:** a segmented fin ray which is composed of two closely joined lateral elements. It is nearly always flexible and often branched.

**Spatulate:** flattened with a rounded end, sometimes used to describe tooth shape.

**Species:** the fundamental unit in the classification of elements and plants consisting of a population of individuals which freely interbreed with one another. The word "species" is both singular and plural.

**Spine:** unsegmented bony process consisting of single element, usually rigid and sharply pointed. Those spines which support fins are never branched.

**Spinule:** a small spine (but not used to refer to the spines in fins).

**Spiracle:** an opening between the eye and the first gill slit of sharks and rays which leads to the pharyngeal cavity.

**Standard length:** the straight-line length of a fish from the front of the upper lip to the posterior end of the vertebral column (the last element of which, the hypural plate, is somewhat broadened and forms the bony support for the caudal fin rays).

Stripe: a horizontal straight-sided colour marking.

**Subopercle:** an elongate flat dermal bone which is one of the four comprising the operculum; lies below the opercle and forms the ventroposterior margin of the operculum.

**Suborbital depth:** the distance from the lower edge of the eye to the nearest edge of the upper lip.

Subspecies: a taxonomically and geographically distinct subgroup within one species.

**Supraorbital:** the region above the upper edge of the eye.

Supraorbital ridge: bony crest above eye.

**Symbiosis:** the living together in close association by two dissimilar organism. This term includes commensalism whereby one organism derives benefit from the association but the other does not (though it is not harmed); parasitism where the association is disadvantageous to one of the organisms and mutualism where both organisms exist to mutual advantage.

**Symphysis:** an articulation, generally immovable, between two bones; often used in reference to the anterior region of juncture of the two halves of the jaws.

**Synonym:** invalid scientific name of an organism proposed after accepted name.

Tail: the part of an animal posterior to the anus (disregarding the hind limbs of quadrupeds).

**Teleost:** refers to teleostei, the highest superorder of rayfin bony fishes. The other superorders are the Chondrostei (surgeons and paddlefishes are living representatives) and the Holostei (the bowfin and true gars are contemporary forms). Teleosts represent about 96 per cent of extant fishes.

**Terminal:** pertaining to a mouth at the anteriormost part of the head.

Thermocline: the distinct interface between surface waters and cooler deeper waters.

**Thoracic:** referring to the chest region.

**Total length:** the maximum straight-line length of a fish; generally taken from the front of which whichever jaw is most anterior to the end of the longest caudal fin ray.

**Transverse scales:** series of scales in a vertical row, often counted between the dorsal and anal fin bases.

**Truncate:** square-ended; used to describe a caudal fin with a vertically straight terminal border and angular or slightly rounded corners.

**Uniserial:** arranged in a single row.

**Upper limb:** refers either to the vertical free margin of the preopercle or the upper part of the gill arch.

**Ventral:** toward the lower part of the body; the opposite of dorsal.

Vertical scale rows: see midlateral scales.

**Villiform:** like the villi of the intestine, hence with numerous small slender projections. Used to describe bands of small close-set teeth, particularly if slender. If the teeth are short, they are often termed cardiform.

Viviparous: producing living young which develop from nourishment directly from the mother.

**Vomer:** a median unpaired bone toward the front of the roof of the mouth, the anterior end of which often bears teeth.

Yolk: the nutritive material (rich in fatty substances) of an egg.

**Zooplankton:** the animals of the plankton.

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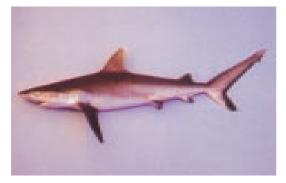
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b. Carcharhinus sorrah



c. Galeocerdo cuvier



d. Sargocentron spiniferum



e. Aethaloperca rogaa



f. Anyperodon leucogrammicus



g. Cephalopholis argus



h. Cephalopholis leopardus



a. Cephalopholis miniata



 $b.\ Cephalopholis\ sonnerati$ 



c. Cephalopholis urodeta



d. Epinephelus areolatus



e. Epinephelus caeruleopunctatus



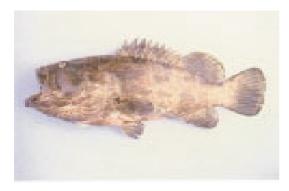
 ${\it f.\ Epinephelus\ chlorostigma}$ 



g. Epinephelus fasciatus



h. Epinephelus flavocaeruleus



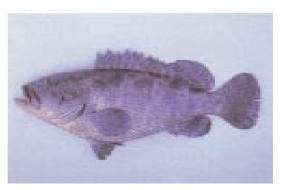
a. Epinephelus fuscoguttatus



b. Epinephelus multinotatus



c. Epinephelus ongus



d. Epinephelus polyphekadion



e. Epinephelus spilotoceps



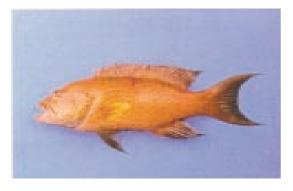
f. Plectropomus areolatus



g. Plectropomus laevis



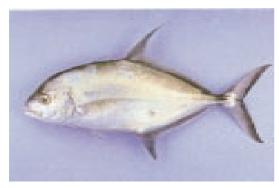
 $h.\ Plectropomous\ pessuliferus$ 



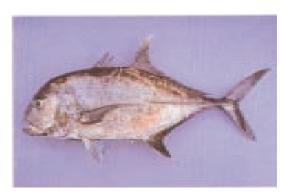
a. Variola albimarginata



b. Varila louti



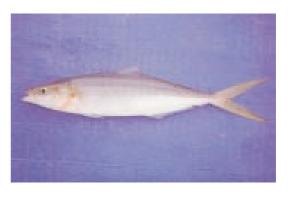
c. Carangoides orthogrammus



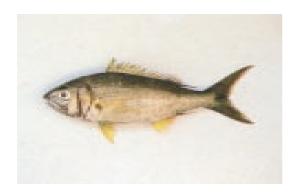
d. Caranx ignobilis



e. Caranx lugubris



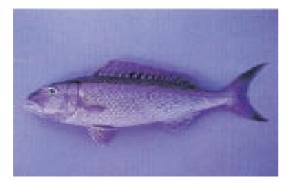
f. Elagatis bipinnulata



g. Aphareus furca



h. Aphareus rutilans



a. Aprion virescens



b. Lutjanus bohar



c. Lutjanus fulvus



d. Lutjanus kasmira



e. Lutjanus sebae



 ${\it f.\ Pristipo moides\ filamentos us}$ 



g. Lethrinus conchliatus



h. Lethrinus rurioperculatus



a. Chaetodon collare



b. Chaetodon oxycephalus



c. Chaetodon madgaskariensis



d. Forcipiger flavissimus



e. Forcipiger longirostris



f. Apolemichthys trimaculatus



g. Pomacanthus imperator



h. Pygoplites diacanthus

| 115       | 200   | 184  | אים נים אין דר<br>בתית ברש מוש ברית ומ                 |
|-----------|---|------|--|
| 178       | ? × ° /<br>و د فر و و و   | 127  | ב<br>בריית הבע ת'ית בת                                 |
| 334       | چ مرک   | 273  | 2 × 0 × 5 × 5 × 5 × 6 × 6 × 6 × 6 × 6 × 6 × 6          |
| 195       | 00,000<br>10,000<br>10,000  | 266  | ב מר ב מר מי<br>מר ב מר ב מר מי                        |
| 3/6       | 2, 0, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,  | 165  | ?? ° ×<br>5,00 × ×                                     |
| 368       | אר נים אר   | 180  | -<br>بر چ<br>فرسر چ                                    |
| /37       | ح هاشورسري  | 347  | م بحر سر <u>*</u><br>می بحر بحر سر <u>*</u>            |
| 237       | ר י י י י י י י י י י י י י י י י י י י   | 308  | مُرْدُرُ<br>مُرْدُرُ                                   |
| 97        | אר<br>פית <i>ב</i> ק ציית   | 202  | מר מ               |
| 114       | 177×0<br>178207   | 40   | # -<br>\$2\$   |
| 340       | 2017XP<br>2017XP  | 254  | ه کره کر را  |
| 24        | ה אר א מתב כול ה<br>משב מתב כול א   | 203  | م شور مرسوه<br>م شور مرسوه<br>م                        |
| 169       | 0 12 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | 116  | مرمندر هو<br>مرمندر هو                                 |
| 357       | 2 / 2 /<br>2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 /  | 3/8  | מי ביי<br>מנגיל עד                                     |
| 357       | 2 ×20 1<br>2 × 20 3 × 20 5  | 79   | مِدِ رُقِي مِرَّ سَرُ<br>مِدِ رُقِي مِر قُرْ سَرُ      |
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| 270       | ל ב ב מור ב ב מור ב ב ב מור ב ב ב מור ב ב ב ב ב ב ב ב<br>ב ב ב מור ב ב ב ב מור ב ב ב ב ב ב ב ב ב ב ב ב ב ב  | 130  | ء کا تکرکسویم  |
| 338       | ئو ئۇرۇرىش<br>ئو ئۇرۇرىش  | /3   | وُ شرر و والريم  |
| 174       | 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2   | 177  | د هر گرو<br>می شریم می فر می تو                        |
| 277       | *   | 3/9  | ر<br>موسره   |
| 154       | ء سر <i>وُ</i> مشو  | 129  | ה<br>מיני ש'ת'יע <i>ב</i> ק                            |
| 68        | ي سرومت و گزاش  | 209  | ה<br>הפתעם ש   |
| 146       | 37<br>37.5  | 263  | 2 ° د را ا<br>می شرقر کر را                            |
| 373       | ב אר ב אר ב<br>ב אר ב אר ב  | 210  | ר 0 ר<br>מנק מם ש                                      |
| 332       | 2 7 7 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8   | 27   | د هر د رُدُّر<br>می شوری کری فرور کر                   |
| 3/        | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-   | 363  | د ۵ و کرم فرسر <u>۶</u><br>می شروری کرمی فرسر <u>۶</u> |
| 224       | )   | 227  | ۵  |
| 230       | ב ת כם <i>י</i> א יות בק  | 345  | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2                  |
| 367       | -<br>7*<br>2°,  | 330  | 2 × 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0              |
| 142       | 2 2 x<br>2 x 2 x 5  | 23   | א א א א א א א א א א א א א א א א א א א                  |
| 234       | سؤر عاروك   | 264  | ئى يەرى<br>ئى بەر تۇرىر                                |
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| 166       | / ٥   | /88  | 0×2/0/<br>1/2/2/2                                      |
|           | •   | 88   | 99.7   |

| 8           | ן 0 ?<br>2, 2, 00 צ ק נות מ  | 145       | ۆ ئۆچە ئىرشورىشى ئورىشىدە<br>ئۇرىمۇ ئىرىشورىشىدە           |
|-------------|--|-----------|--|
| 348         | ر ۵ و ۵ × ۵<br>کر می تو من موسو ±  | 3//       | وَ مُرْوِجِ هُا مُنْ                                       |
| 282         | 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  | 45        | ره پر ره پرد<br>تر سر قر چر تر سره <u>۴</u>                |
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| 295         | عرفر فرو توشوش   | 36 /      | ۇ ئەرىك كۆچە ئىرىس <u>ئ</u><br>ئۇسۇرىك كۆچە ئىرىس <u>ئ</u> |
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| 324         | -  | 359       | 2 × 3 / 3 / 3 / 5 / 5 / 5 / 5 / 5 / 5 / 5 /                |
| 110         | د<br>و شرخ بر و ک  | 19        | 235 33   |
| 90          | قرش می بروش  | 15        | ה<br>האל האל האל האל האל האל האל האל האל האל               |
| 294         | ב ב ה ב ב ב ב ב ב ב ב ב ב ב ב ב ב ב ב ב  | 240       | ' ג' אינ' ג' אינ' אינ' אינ' אינ' אינ' אינ' אינ' אינ        |
| 3/2         | ، ره در<br>قر تو مرموع   | 278       | ה<br>האביתו על   |
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| 253         | 2007   | 226       |  |
| 244         | خ ک <sup>و</sup> و ترکه ک <sup>و</sup>   | 5         | צ'ות כחל ד   |
| 268         | ۵ × ۵ × ۵ × ۵ × ۵ × ۵ × ۵ × ۵ × ۵ × ۵ ×  | <i>87</i> | وه في رُوْسَ   |
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| 83          | 20 0 20 לי 1<br>- מר ע ע ציע<br>מר ע ע ציע   | /23       | وَهُ وَ  |
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| 105         | 20 0 x<br>20 0 20 x<br>20 0 0 20 x   | 14        | ה<br>המל   |
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| 286         | ב' מ' פט פ<br>' ר' נ'<br>' ב' מ' ע' ע' ע' ע'<br>' ב' מ' ע' | 256       | ئى ئ                   |
| 242         | אר 0 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 /   | //3       | رُورِيُّرِ<br>رُورِيُرِسرِيُّ ڪي                           |
| 216         | אי 0 אילי 0<br>איני מעכ  | 229       | · / 2 ? ?  |
| 27 <i>5</i> | א 0 א א א ער ע"<br>פר ע מים את ת ע"  | 6         | ورجرر  |
| 181         | × ه × / × ۶<br>ځرسر سامی مرور خرو  | 17        | ה היה היה היה היה היה היה היה היה היה ה                    |
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| 95          | ב מיק ב מיק<br>מית ב יית   | 320       |  |
| 358         | , אין  | 126       | تر و و و و و و و و و و و و و و و و و و و                   |
|             |  |           |  |

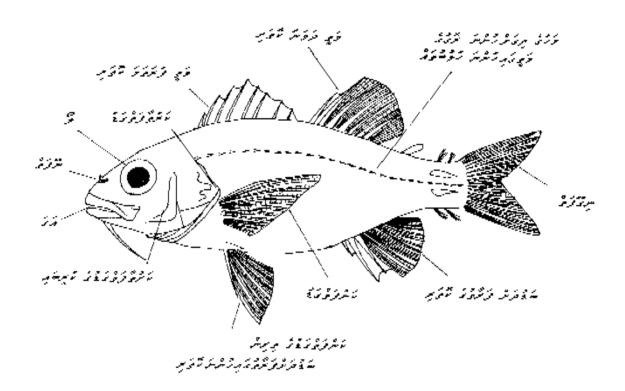
| 354        | ?  | 207  | /x<br>• • • • • • • • • • • • • • • • • • •  |
|------------|--|------|--|
| 322        | , , , , , , , , , , , , , , , , , , ,                        | 251  | عرفر را  |
| <i>355</i> | 2 22 2<br>2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2                    | 73   | ئى<br>ئۇجۇئىر  |
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| 30         | وتخرر  | 17 1 | رُسِر ب <i>ر</i>   |
| 350        | 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2 ×                      | 15   | 3/12 36163   |
| 37         | 0 /0× /2<br>2/0 2  | 34   | رور شرق  |
| 186        | 0×3 1 %<br>12 1 × 12 × 12 × 12 × 12 × 12 × 12 × 12           | 272  | ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה  |
| 159        | وگى سرۇمشو   | 112  | ۵۰٪ ۲ ° ۶<br>درخرسری حکم   |
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| 267        | وقرور گ<br>ورر گ   | 22   | ה.<br>ה. 25 פרח ה  |
| 360        | وْمِ تُرْسِيةً   | 200  | , × × × × × × × × × × × × × × × × × × ×  |
| 140        | ۇىرىخىرۇ<br>ۋىرۇم<br>ۋىرۇمھوركىرو                            | 350  | 2 × 1/ |
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| 304        | و بحر ما فر شر سر<br>و بحر ما فر شر سر                       | 149  | * * * \$ \$ \ م. * \$ \$ \$ م. * \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$   |
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| 10         | ב מ'ב' מ' בנאיל  | 49   | 20,000   |

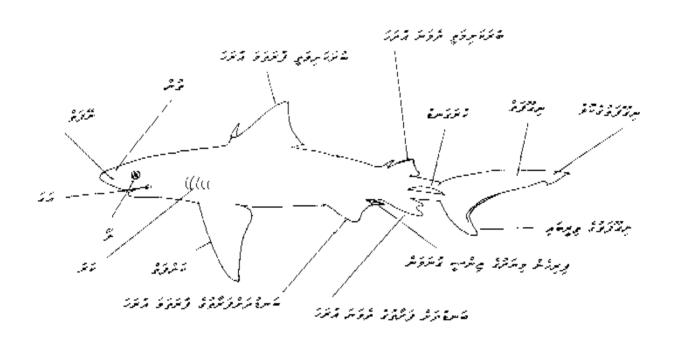
| 25   | ماسره والأنخر   | 150 | برس فخر گرمشو   |
|------|---|-----|---|
| 170  | ر<br>ماس غافر س   | 33  | برسر قر وُسُو<br>نگرار  |
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| 27 / | سُوْجِ هُ رُوْمُ رِيْ   | 297 | ה.<br>המת ב ב פ פ פ פ פ פ פ פ פ פ פ פ פ פ פ פ פ                         |
| 179  | ر د د د د د د د د د د د د د د د د د د د   | 327 | × ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲                                 |
| 353  | ر<br>رونزس<br>مارونزس   | 220 | 0 14x 27 10<br>0 10 x 2 x 2 x 0 x 0 x 0 x 0 x 0 x 0 x 0 x               |
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| 84   | ر کر منظم کار   | 221 | ה פני אינו לי<br>שתית בן עער היי  |
| 285  | نگرر<br>ر   | 69  | ه رقع روس   |
| 21   | מציבות ב בחל  | 98  | 11170<br>71200  |
| 93   | ىدى ئىرىدى ئىرىسى ئىرىدى ئىرىدى ئىرىدى ئىرىدى ئىرىسى ئىرىدى ئىرىسى ئىرىدى ئىرىدى ئىرىدى ئىرىدى ئىرىدى ئىرىدى ئ  | 29  | مامر بگری و اور تر  |
| 201  | ע ייל צ נול ש ש   | 2/8 | ىكىرىڭ كۇڭ  |
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| 222  | 0 /4×/ 3<br>1-200<br>1-200  | 65  | مارور و در از در                    |
| 102  | 1 22 2 2<br>2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2   | 109 | 12 V  |
| 94   | 1412<br>450   | 108 | 1017<br>Vm 2702   |
| 86   | 200 מי /<br>מי אל מית   | 164 | ماسرتي مرتمو وكروسو   |
| 144  | ۵ × ۶ × ۵<br>سامر نومرم   | /87 | 0×2/2<br>2/2/2/2  |
| 185  | ) (u  | 176 | מת ברתות  |
|      |   |     |   |

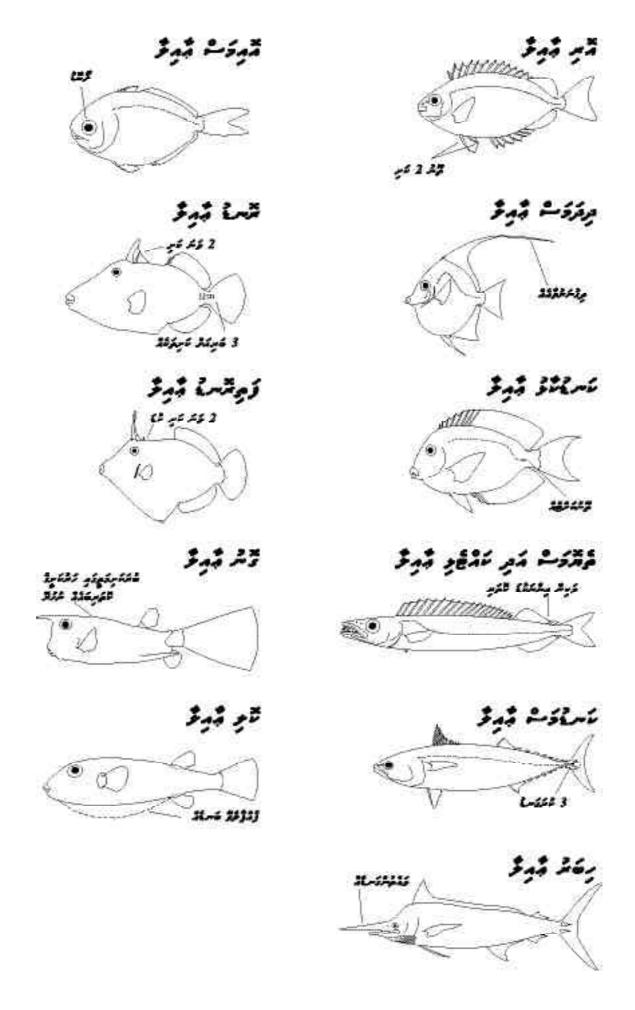
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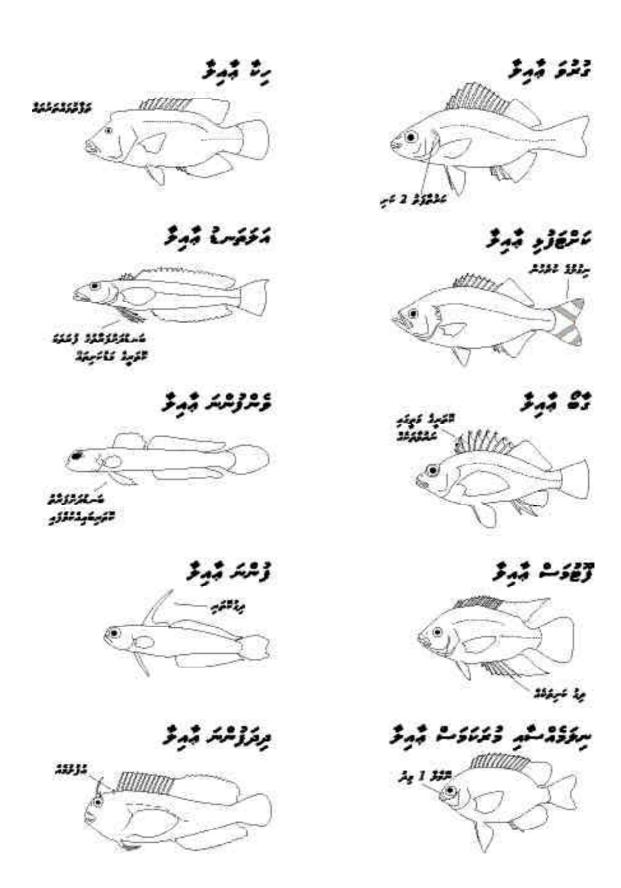
| 4   | ת <i>ב'</i> ת כ וכ' צ   | 197         | ر د د د د د د د د د د د د د د د د د د د   |
|-----|---|-------------|---|
| 238 | 25,50   | 300         | رَيْرِي وْسُرْسُرُ  |
| 3/3 | ה ככר כ היכ<br>תי בתבת מצ   | 280         | מו ה מי<br>מו מי  |
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| 3/0 | 2 4 22<br>4 24<br>9 24  | 193         | ر ۵ و خوار<br>ر سرفر مام ه  |
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| 261 | 2 2 2 2 0 1<br>2 2 2 2 0 1<br>2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2   | 111         | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,  |
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| 82  | ئىرى ھ <sub>ە</sub> مەلۇكىر<br>ئىرى كەبۇلىر   | 32          | ۶ ×<br>رسرځخ  |
| 219 | 2 0 × 0 / 0 0 × 0 × | 139         | ر ر در و در و در  |
| 3/4 | 7. 7.7.<br>20.5   | 124         | سر <i>چوار کو در کو در کو در کو در کو در</i> کو در کار کار کار کار کار کار کار کار کار کا   |
| 333 | رات پیر<br>بحر بی سور ±   | 189         | ر دران<br>سر مرکزی ه  |
| 372 | ٣   | 41          | رُسر الْحَرِ الْرَحْرُ<br>رُسر الْحَرِ الْرَحْرُ<br>رُسر الْحَرِ الْرَحْرُ<br>سُرُ تُحْرُقُ الْرَحْرِ<br>سُرُ تُحْرُقُ الْرَحْرِ<br>سُرْتُمْرُقُ الْرَحْرِ  |
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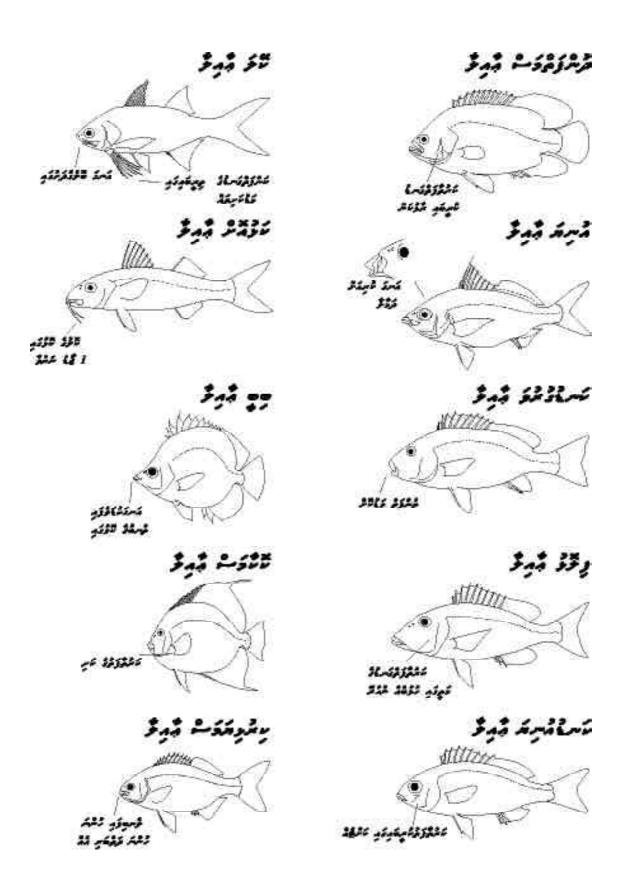
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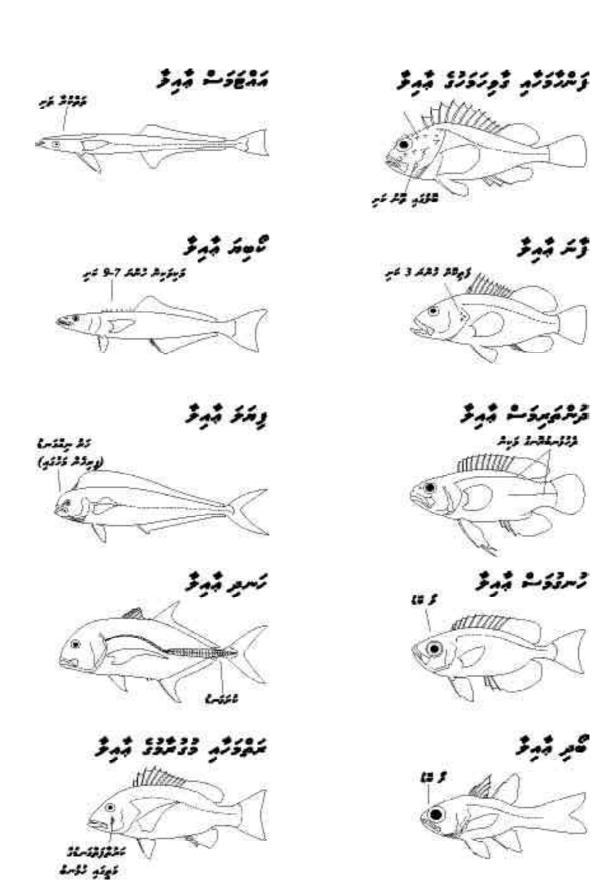




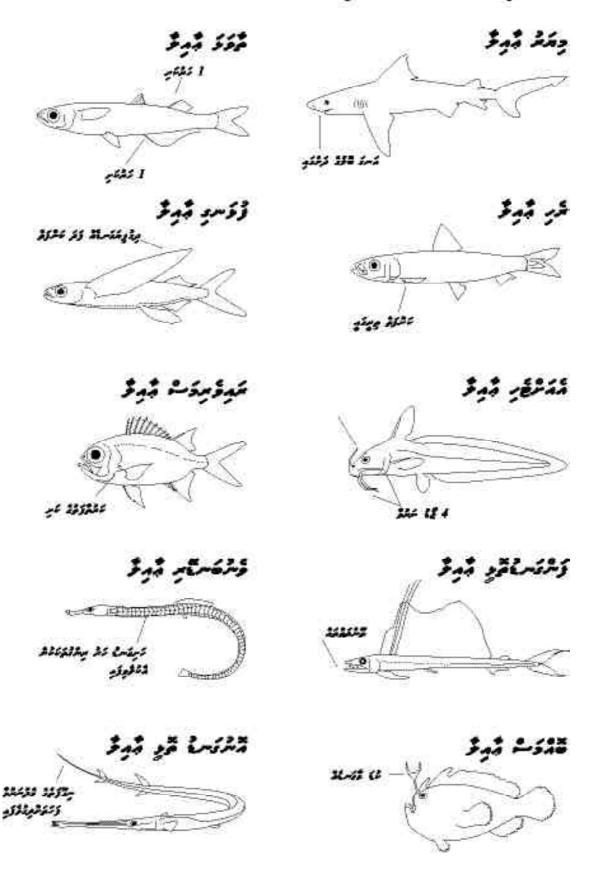








# وُهُدُرِ دُمُولُو وُرُو دُرِوْهُدُ وَمُرَاهُمُولُوهُ



#### 25000 42

بالا طفاقة والمعلقة وقال به والمقالة الما واستان والمواقة بالمسلمة والمسلمة والمسلمة والمسلمة والمسلمة والمواقة ويونولال 1981 فتر دول تهديم المواقية المائد ويدام ويدام الا ويديم المائدة الم

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بالا مثلاث الثنيالة بالكناء الكنادة بالكناء الكنائية الكناء الكناء الكناء الكناء الكناء الكناء الكناء الكناء ا بالله بالمبالي بالمبلكاء الكناء الكناء المبارا المباراء الكناء الكناء الكناء الكناء الكناء الكناء الكناء الكناء معاملة المباردة الكناء الكناء

چازو کارور کارور کارون کرونی کورند کورند کارونی کرورور چهارد خیرد، تدویسه کرورو چار تدویسی تنها تبهین، تدویسی تیون شیروندورسی دورو ماسود، تدویسیا چهارد تریخار تیر تدویسیا تبرمند منبیار و شار مدورور تا

، چائزور دادلا دستوور بهرالهاستود دیدها الادور دولاداداد. الاده دستادد الزور دولاسیار بدارد نیراداد ادامه شاودوددود چال دەئۇلادى ئۇلا دەئۇلادى ئۇلا بىد ئۇلا ئادلا دىلىدى ئەلگى ئۇلا ئېدى چەشىمە مەلىقاتلى چالىدى ئەلىدى ئەلىدى ئەلەرلىدى ئەلەرلىدى ئۇلادى ئۇلادى ئۇلادى ئۇلادى ئۇلادى ئۇلادى ئۇلادى مەنىلىدى ئەرىئىلىدى ئەلىدىلىدى ئۇلۇللىكى ئالىلىدى ئۇلىدى ئۇلىدى ئۇلىدى ئۇلادى ئۇلادى ئۇلادى ئۇلادى ئۇلادى ئۇلۇ ئىر ئىد بىشىلى شىلۇلارلى ئۇلىدى ئۇلۇللىلا

چەل ھىلىنىدۇ ئىلىنىدۇ ئىلىنىدى چەلىلىدىنى ئىلىنىڭ ئىلەنگەلىنىدىدۇ. ئىلىنىد ئىزى ئىلەنچە، ئىلەنچە ئەل ئەنى ھىنىنىڭ ئىلىنىڭلىنى ئىلىپىلىنى ئىل چەلىلى چەنئى ئىبىل بىشىمە شىلىلىدى ئىلىنىڭ

عديد

### 35.36

10 وسلامتها فلاوزشانها فلاوزشاريد فلاوز وسلاميتون تاوولل وبادو گود وتوناه وزود ووود پرزودرت وزودن دود دووود دودو پاوپرت وود عمد پردرستارت زودوپ وه ناودو در پاووزپ ایرند ودوداردورو وودان پروه ودو دوهودوده 370 کادود دو مهم دوهودو پروهای وزوددها دودو

چالافلاد دولاد دولاد دولان بالبنت بروبدود بروبدود بروبدود ودود الاودد چلالانیدود دولاد گزود گزود دولاد بر داشتار پیشهاستید بازد کادود دولاد در دولاد مردود دیدوبدود شدوددد دید، وولادد با بازد دولاد دولاد دولاد دولادد دولادد

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زستار بالبياز پيرسلين 15 پينتيل لائلا الايتالاز

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ئردي ئرويود وبرده ورهائه دوزره وساورناد وساداره وزفر ودودود وينزدد ساده، دهر وزرنا وفرد ودزرود ودر فران ورف

> 24 مَرْجَدُ 1418 24 مَرْوُدُونَدر 1997

وروش مدور ودروو



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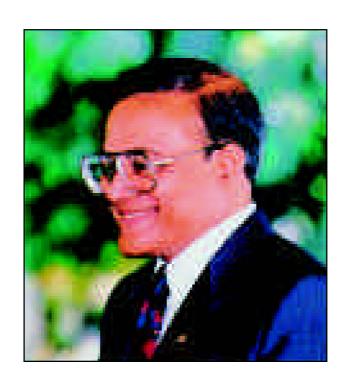
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**برمرین کامرڈ کار** ڈیڈ برازیڈنٹ

# مُرد موج في ورود مراكزة ريد في

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