

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

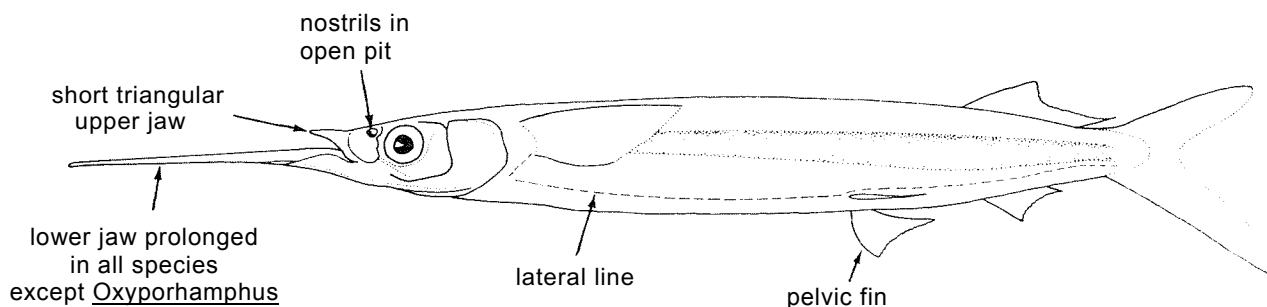
HEMIRAMPHIDAE

Halfbeaks

Elongate fishes with a prolonged lower jaw (except in *Oxyporhamphus*) and a short triangular upper jaw. Nostrils in a pit anterior to the eyes. No spines in fins; dorsal and anal fins posterior in position; pelvic fins in abdominal position, with 6 soft rays; pectoral fins usually short. Lateral line running down from pectoral fin origin and then backward along ventral margin of body. Scales moderately large, cycloid (smooth), easily detached.

Colour: these fishes live in the surface and are protectively coloured for this mode of life by being green or blue on the back and silvery white on the sides and ventrally. Tip of the lower jaw bright red or orange in most species.

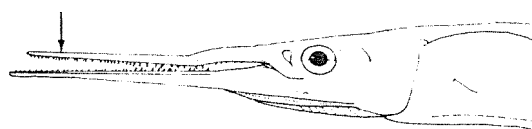
Most species are marine, but some inhabit freshwaters; omnivorous, feeding on floating sea grass, crustaceans and small fishes. They are prone to leap and skitter at the surface and one offshore species, *Euleptorhamphus viridis* leaps out of the water and glides like a flying fish. Although at present these fishes are not of great commercial importance, most species are regularly found in local markets. The flesh is excellent and halfbeaks are utilized as food in many parts of the world. They are mainly caught with seines and pelagic trawls, and dipnetted under lights at night. They are utilized fresh, dried and smoked.



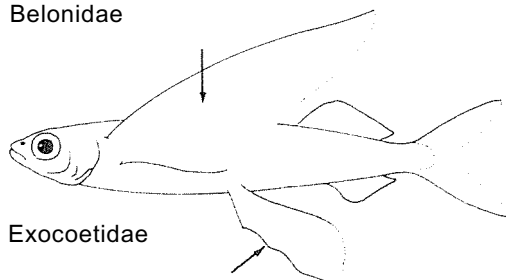
SIMILAR FAMILIES OCCURRING IN THE AREA:

Belonidae (needlefishes): both upper and lower jaws elongated and armed with needle-sharp teeth.

Exocoetidae (flyingfishes): lack the prolonged lower jaw characteristic of most halfbeaks; pectoral fins or both pectoral and pelvic fins enlarged and used for aerial gliding.



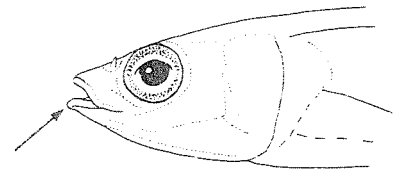
Belonidae



Exocoetidae

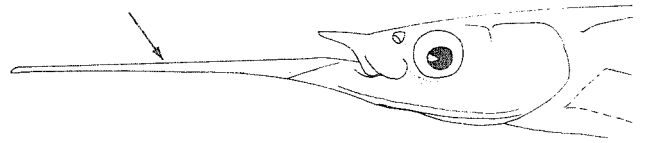
KEY TO GENERA OCCURRING IN THE AREA:

1a. Lower jaw not noticeably elongate (Fig.1);
pectoral fins 30 to 35% of standard
length Oxyporhamphus



Oxyporhamphus Fig.1

1b. Lower jaw distinctly elongate (Fig.2);
pectoral fins less than 30% of standard
length



lower jaw prolonged
in all species
except Oxyporhamphus Fig.2

2a. Dorsal fin rays 20 to 25; anal fin rays
20 to 25 (Fig.3a); pectoral fins long,
25 to 28% of standard length; pec-
toral fin rays usually 7 to 9 Euleptorhamphus



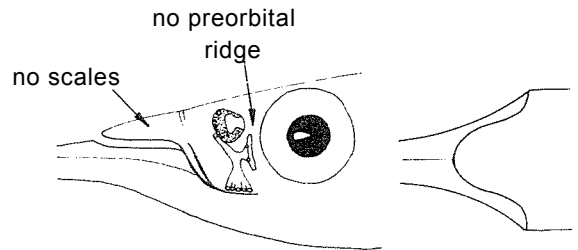
a) Euleptorhamphus

2b. Dorsal fin rays 12 to 18; anal fin rays
10 to 19 (Fig.3b); pectoral fins short,
less than 20% of standard length;
pectoral fin rays 9 to 13

b) Hemiramphus Fig.3

3a. Scales absent on snout; pre-
orbital ridge absent (Fig.4a) Hemiramphus

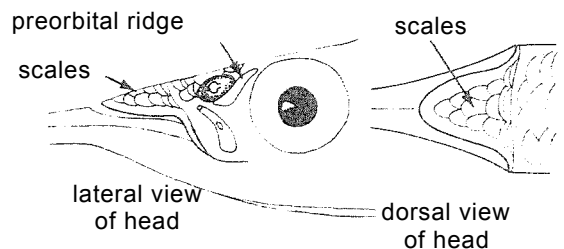
3b. Scales present on snout; pre-
orbital ridge well developed
(Fig.4b)



a) Hemiramphus

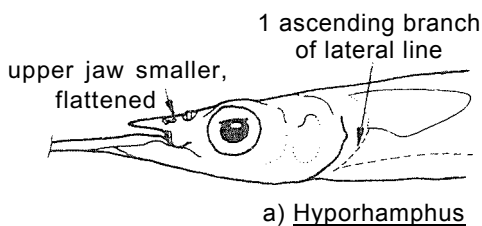
4a. Nasal papillae not fimbriate;
upper jaw flat or nearly
flat; gillrakers on first arch
19 to 47; lateral line with 1
branch ascending toward
pectoral fin origin (Fig.5a).. Hyporhamphus

4b. Nasal papillae fimbriate;
upper jaw arched; gillrakers
on first arch 47 to 78; late-
ral line with 2 branches
ascending behind opercle
and pectoral fin origin
(Fig.5b) Rhynchorhamphus

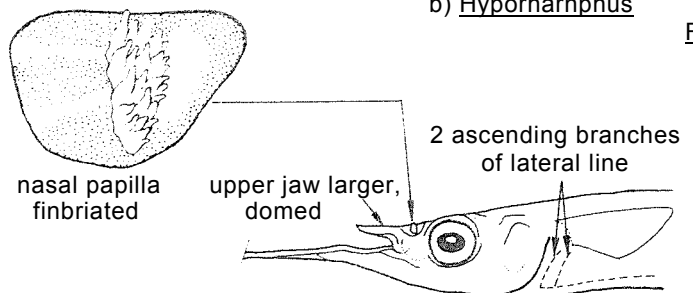


b) Hyporhamphus

Fig.4



a) Hyporhamphus



b) Rhynchorhamphus

Fig.5

* Out of about 12 genera and 75 species in the family, 22 species, belonging to 5 genera, occur in the Western Indian Ocean

LIST OF SPECIES OCCURRING IN THE AREA:

Code numbers are given for those species for which Identification Sheets are included

Euleptorhamphus viridis (van Hasselt, 1823)

Hemiramphus archipelagicus Collette & Parin, 1978

HEMIR Hemir 5

Hemiramphus far (Forsskål, 1775)

HEMIR Hemir 4

Hemiramphus lutkei (Valenciennes, 1846)

HEMIR Hemir 6

Hemiramphus marginatus (Forsskål, 1775)

Hyporhamphus (Reporhamphus) affinis (Günther, 1866)

Hyporhamphus (Reporhamphus) balinensis (Bleeker, 1858)

Hyporhamphus (Hyporhamphus) capensis (Thominot, 1866)

Hyporhamphus (Hyporhamphus) improvisus (Smith, 1933)

Hyporhamphus (Reporhamphus) dussumieri (Valenciennes, 1846)

HEMIR Hypor 3

Hyporhamphus (Reporhamphus) erythrorinchus (Le Sueur, 1821)

Hyporhamphus (Reporhamphus) gamberur (Rüppell, 1835)

Hyporhamphus (Hyporhamphus) limbatus (Valenciennes, 1846)

HEMIR Hypor 4

Hyporhamphus (Reporhamphus) quoyi (Valenciennes, 1846)

Hyporhamphus (Hyporhamphus) sindensis (Regan, 1905)

Hyporhamphus (Hyporhamphus) unicuspis Collette & Parin, 1978

Hyporhamphus (Hyporhamphus) xanthopterus (Valenciennes, 1876)

Oxyporhamphus convexus (Weber & de Beaufort, 1922)

Oxyporhamphus micropterus micropterus (Valenciennes, 1846)

Rhynchorhamphus arabicus Parin & Shcherbachev, 1972

Rhynchorhamphus georgii (Valenciennes, 1846)

Rhynchorhamphus malabaricus Collette, 1976

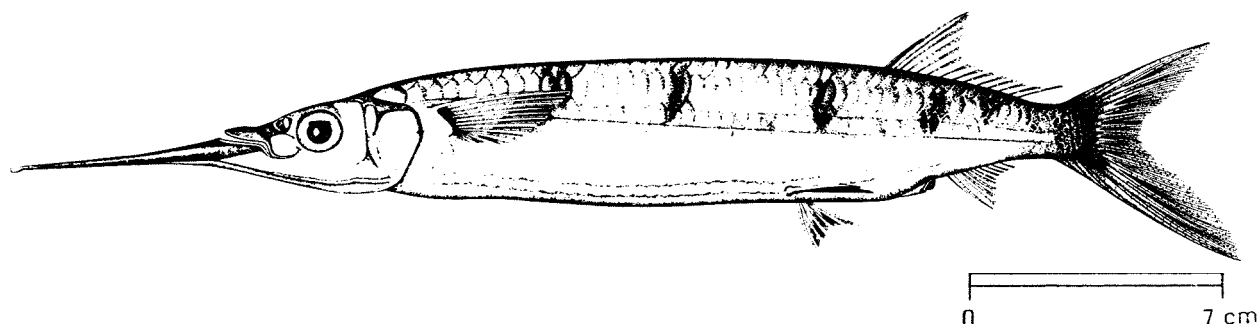
HEMIR Rhynch 1

Prepared by B.B. Collette, National Marine Fisheries Service, Systematics Laboratory, NOAA, Washington C.C., USA

Species illustrations provided by author

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: HEMIRAMPHIDAE

FISHING AREA 51
(W. Indian Ocean)Hemiramphus far (Forsskål, 1775)OTHER SCIENTIFIC NAMES STILL IN USE: Hemiramphus commersoni Cuvier, 1829

VERNACULAR NAMES:

FAO : En - Black-barred halfbeak
 Fr - Demi-bec bagnard
 Sp - Agujeta manchada

NATIONAL:

DISTINCTIVE CHARACTERS:

An elongate fish with a greatly prolonged, beak-like lower jaw; upper jaw short, triangular and scaleless; preorbital ridge (bony ridge behind nostril) absent. Total number of gillrakers on first gill arch 25 to 36, usually 29 to 33; 6 to 10 on upper and 19 to 26 on lower limb of arch. No spines in fins; dorsal fin rays 12 to 14; anal fin rays 10 to 12, usually 11; pectoral fins short, not reaching past nasal pit when folded forward and with 11 to 13 rays, usually 12; caudal fin deeply forked, lower lobe much longer than upper. Predorsal scales 32 to 39, usually 34 to 37.

Colour: dark bluish above, silvery white below, with 3 to 9 (usually 4 to 6) vertical bars on the sides. Beak dark, with a bright red fleshy tip.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Hemiramphus marginatus and He. lutkei: both lack the prominent vertical bars on the sides. They can be further distinguished from He. far by the following characters:

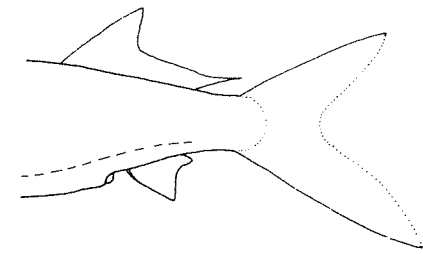
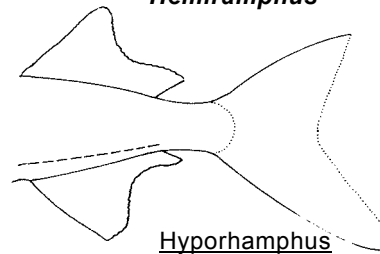
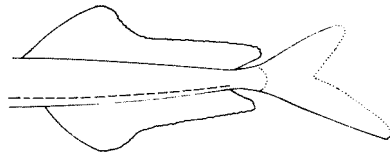
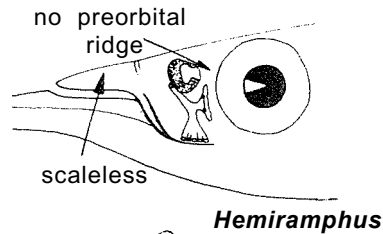
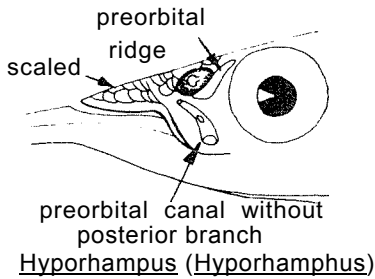
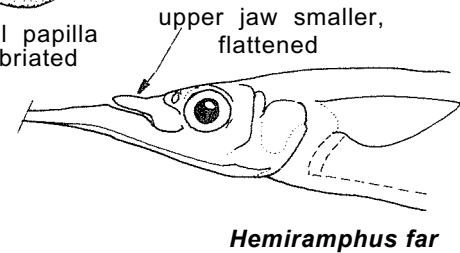
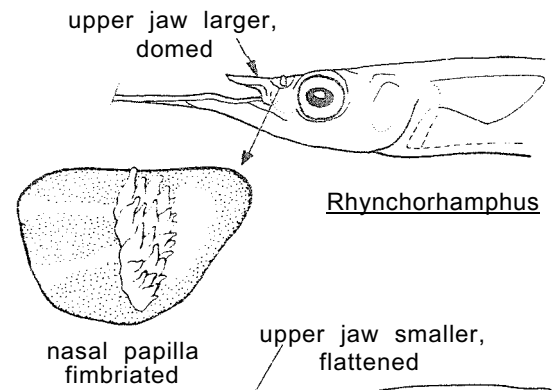
He. lutkei: pectoral fin very long, reaching beyond anterior margin of nasal pit when folded forward (just reaching pit in He. far), contained 4.8 to 5.4 times in standard length (5.4 to 6.6 times in He. far); more anal fin rays, usually 12 (usually 11 in He. far), fewer pectoral fin rays, usually 11 usually 12 in He. far, and more gillrakers, 33 to 46, usually 36 to 43 (25 to 36, usually 33 or fewer in He. far).

He. marginatus: lower jaw shorter, usually shorter than head length or equal to it (lower jaw length greater than head length in He. far).

Rhynchorhamphus species: upper jaw strongly arched and covered with scales (nearly flat and naked in Hemiramphus); nasal organ divided into fimbriae (a simple flattened lobe in Hemiramphus); more gillrakers, 47 to 78 (25 to 48 in Hemiramphus).

Hyporhamphus species: upper jaw covered with scales (scaleless in Hemiramphus); preorbital ridge present (absent in Hemiramphus); caudal fin slightly forked (deeply forked with lower lobe much longer than upper in Hemiramphus); more anal fin rays, 13 to 19 (10 to 14 in Hemiramphus).

Euleptorhamphus viridis: body more slender: bases of dorsal and anal fins much longer, fins with many more rays (20 to 25 in dorsal and anal fins).



SIZE:

Euleptorhamphus

Hyporhamphus

Hemiramphus far

Maximum: about 44 cm total length; 33 cm standard length (from tip of upper jaw to base of caudal fin). Common to 27 cm standard length.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

An Indo-West Pacific species. Within Fishing Area 51, found from South Africa northward along the East African coast including Madagascar, Mauritius, the Comores Islands, Seychelle Islands, and Zanzibar through the Red Sea and along the coasts of Pakistan, India and Sri Lanka. Also found in the Eastern Indian Ocean and Western Central Pacific, extending westward to the Philippine Islands, New Caledonia and Okinawa. Also has gone through the Suez Canal to colonize the eastern Mediterranean Sea.

Found in the proximity of continental coasts and islands, chiefly in areas of rich submerged vegetation.

Adults feed mainly on sea grasses, to a lesser extent on green algae and diatoms.

PRESENT FISHING GROUNDS:

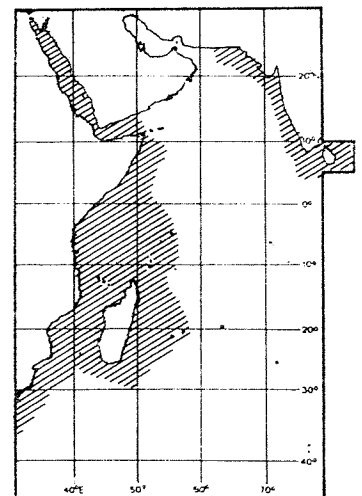
There is a fairly good fishery at Rameswaram and Kitakkarai, Tamil Nadu, India, from November to April.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

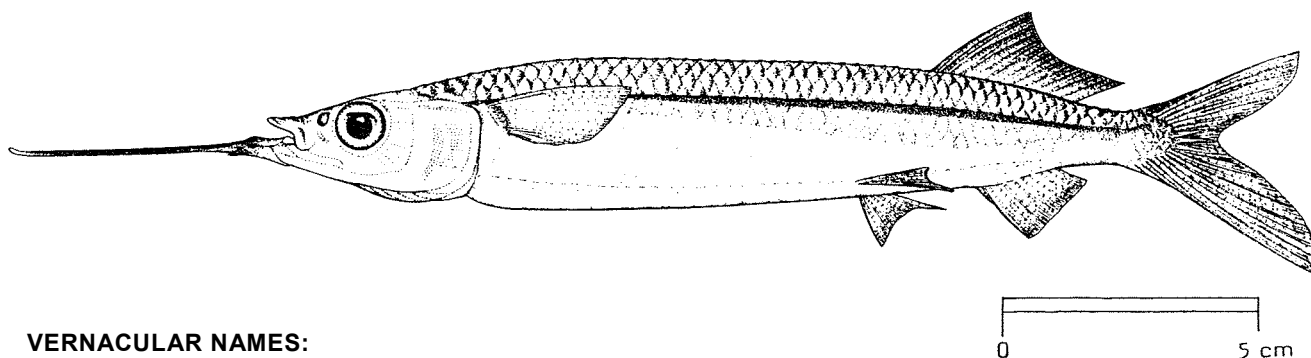
Taken with gillnets and shore seines on the west coast of India, with dragnets or by drifting a fine line with tiny hooks baited with shrimp in South Africa.

Marketed mostly fresh and dried salted.



FAO SPECIES IDENTIFICATION SHEETS

FAMILY: HEMIRAMPHIDAE

FISHING AREA 51
(W. Indian Ocean)Hemiramphus archipelagicus Collette & Parin, 1978OTHER SCIENTIFIC NAMES STILL IN USE: None, but after misidentified as Hemiramphus marginatus (Forsskål, 1775)

VERNACULAR NAMES:

FAO : En - Jumping halfbeak
 Fr - Demi-bec saltou
 Sp - Agujeta saltona

NATIONAL:

DISTINCTIVE CHARACTERS:

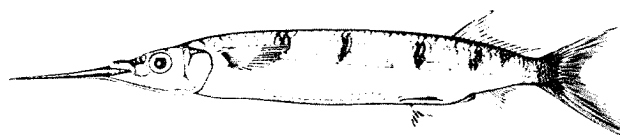
An elongate fish with a greatly prolonged, beak-like lower jaw; upper jaw short, triangular and scaleless; preorbital ridge (bony ridge behind nostril) absent. Total number of gillrakers on first gill arch 25 to 32; 6 to 8 on upper, and 19 to 24 on lower limb of arch. No spines in fins; dorsal fin rays 12 to 15; anal fin rays 10 to 13; pectoral fins short, not reaching past nasal pit when folded forward and with 11 to 13 rays, usually 12; caudal fin deeply forked, lower lobe much longer than upper. Predorsal scales 32 to 37, usually 34 to 36.

Colour: dark bluish above, silvery white below, without any vertical bars on sides. Beak dark with a bright red fleshy tip.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Hemiramphus far: 4 to 6 dark vertical bars on the sides (absent in He. archipelagicus).

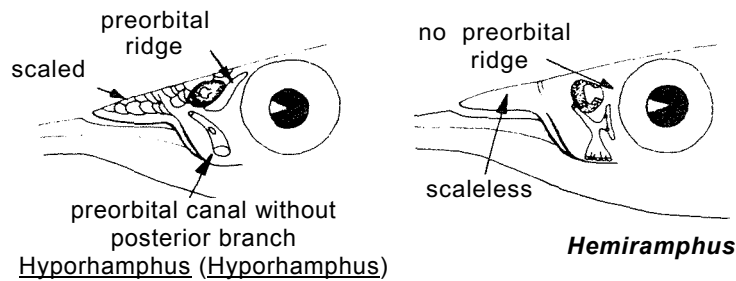
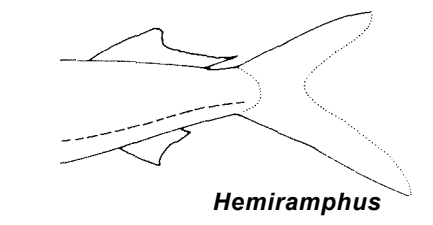
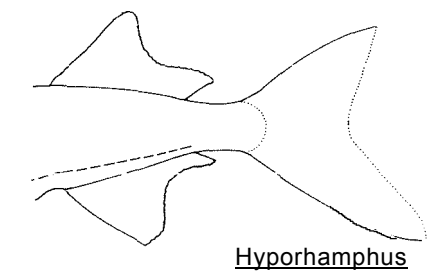
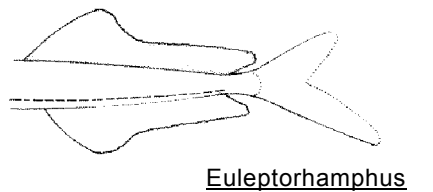
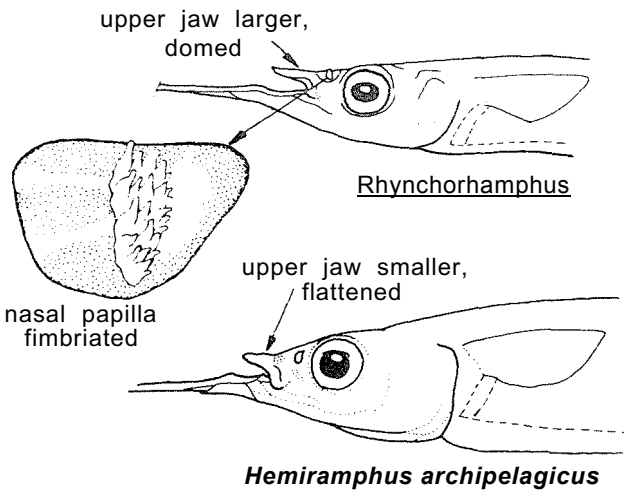
He. lutkei: pectoral fin much longer, extending beyond anterior margin of the nasal pit when extended forward (just reaching pit in He. Archipelagicus), more gillrakers on the first arch 33 to 46, usually 36 or more (25 to 32 n He. archipelagicus); more predorsal scales 25, to 43, usually 37 or more (32 to 37, usually 36 or less in He. archipelagicus), and a narrower interorbital distance, less than orbit diameter (equal to or greater than orbit diameter in He. archipelagicus).

Hemiramphus far

Rhynchorhamphus species: upper jaw strongly arched and covered with scales (nearly flat and naked in Hemiramphus); nasal organ divided into fimbriae (a simple flattened lobe in Hemiramphus); more gillrakers, 47 to 78 (25 to 48 in Hemiramphus).

Hyporhamphus species: upper jaw covered with scales (scaleless in Hemiramphus); preorbital ridge present (absent in Hemiramphus); caudal fin slightly forked (deeply forked with lower lobe much longer than upper in Hemiramphus); more anal fin rays, 13 to 19 (10 to 14 in Hemiramphus).

Euleptorhamphus viridis: body more slender; bases of dorsal and anal fins much longer, fins with many more rays (20 to 25 in dorsal and anal fins).



SIZE:

Maximum: about 34 cm total length; 23 cm standard length (from tip of upper jaw to base of caudal fin).

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Within the area, known from the western part of the Indian Ocean from Bombay to the southern tip of India and Sri Lanka. Also found in the Eastern Indian Ocean and Western Central Pacific, extending eastward to New Guinea and western Polynesia.

Inhabits the immediate vicinity of coasts, but juveniles of this species may sometimes be found with floating plants carried out to sea.

PRESENT FISHING GROUNDS:

West coast of India.

CATCHES, FISHING GEAR AND FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Taken with purse seines at Karwar on the west coast of India and by dol nets at Bombay.

Marketed fresh and dried salted.

