

FAO SPECIES IDENTIFICATION SHEETS

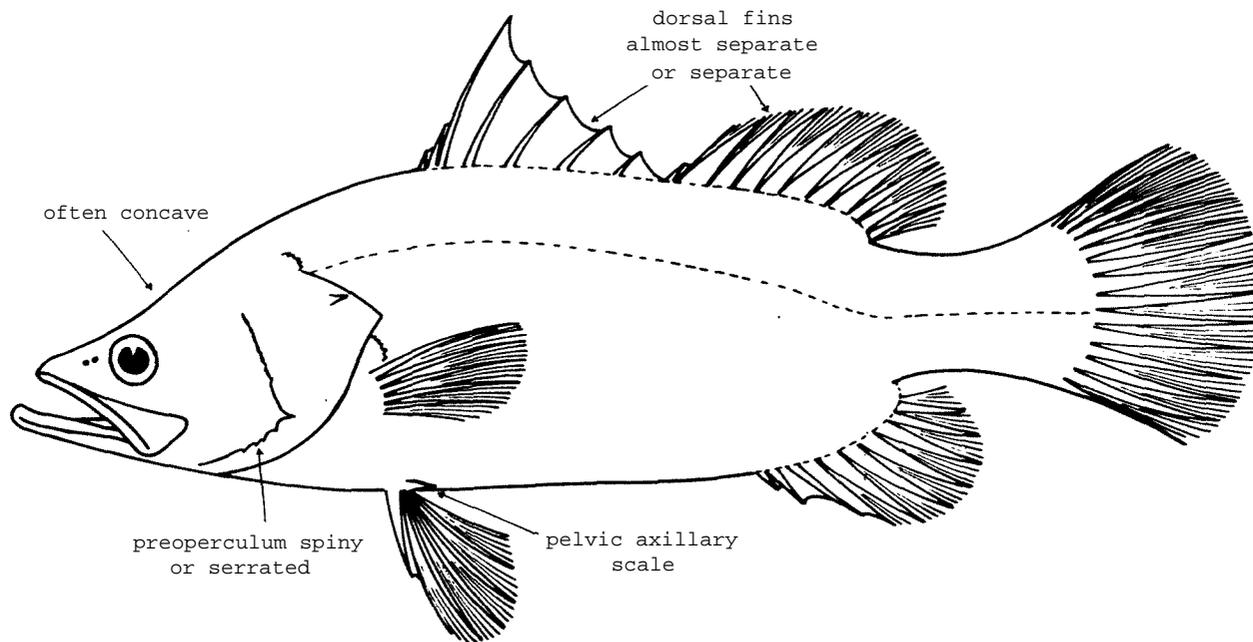
FISHING AREAS 57,71
(E Ind. Ocean)
(W Cent. Pacific)

CENTROPOMIDAE

Seaperches
(including AMBASSIDAE)

Body elongate or oblong, compressed, usually with convex dorsal profile (*often concave at nape*). Mouth moderate or large, jaws equal or with lower longer than upper; teeth small, in narrow or villiform bands on jaws, vomer and palatines, sometimes also on tongue (exceptionally the outer series of jaw teeth enlarged and canine-like). Pre-operculum with a serrated posterior border or with two ridges; serrated or spine/ below; operculum with or without spine. Dorsal fin either partly or wholly separated into two, with 7 to 9 strong spines in front, followed by 1 spine and 9 to 15 soft rays; pelvic fins below pectoral fins, with a strong spine and 5 soft rays; an axillary scale present in some genera; anal fin short, with 3 spines and 6 to 17 soft rays. Scales usually moderate or large, deciduous in some cases.

Colour: *Ambassis* species are usually silvery and somewhat translucent; *Lates* and *Psammoperca* species are usually dark grey or green above and silvery below.



SIMILAR FAMILIES OCCURRING IN THE AREA:

Sciaenidae: have only 2 spines in anal fin.

Lethrinidae: have a continuous and not deeply notched dorsal fin.

Serranidae: *Lateolabrax japonicus*, the only species which could be confused with commercially important Centropomidae in the area (*Lates calcarifer* and *Psammoperca waigiensis*), has a forked tail (rounded in *Lates* and *Psammoperea*) and spots on upper sides.

Key to Genera

- 1 a. Pelvic fins with axillary scale; caudal fin rounded
 - 2 a. Upper jaw reaching to below eye *Psammoperca*
 - 2 b. Upper jaw reaching behind eye *Lates*
- 1 b. Pelvic fins without axillary scale; caudal fin forked ... *Ambassis*

List of Species occurring in the Area
 (Code numbers are given for those species
 for which Identification Sheets are included)

- | | | |
|-------------------------------|-------------------------------|--------------|
| <i>Ambassis agrammus</i> | <i>Ambassis papuensis</i> | |
| <i>Ambassis apogonoides</i> | <i>Ambassis reticulata</i> | |
| <i>Ambassis buruensis</i> | <i>Ambassis safgha</i> | |
| <i>Ambassis buton</i> | <i>Ambassis urotaenia</i> | |
| <i>Ambassis commersonii</i> | <i>Ambassis wolfii</i> | |
| <i>Ambassis confinis</i> | | |
| <i>Ambassis gigas</i> | | |
| <i>Ambassis gymnocephalus</i> | <i>Lates calcarifer</i> | CENTRP Lat 1 |
| <i>Ambassis interrupta</i> | | |
| <i>Ambassis kopsi</i> | | |
| <i>Ambassis macrotepis</i> | <i>Psarmoperca waigiensis</i> | |
| <i>Ambassis miops</i> | | |
| <i>Ambassis natua</i> | | |

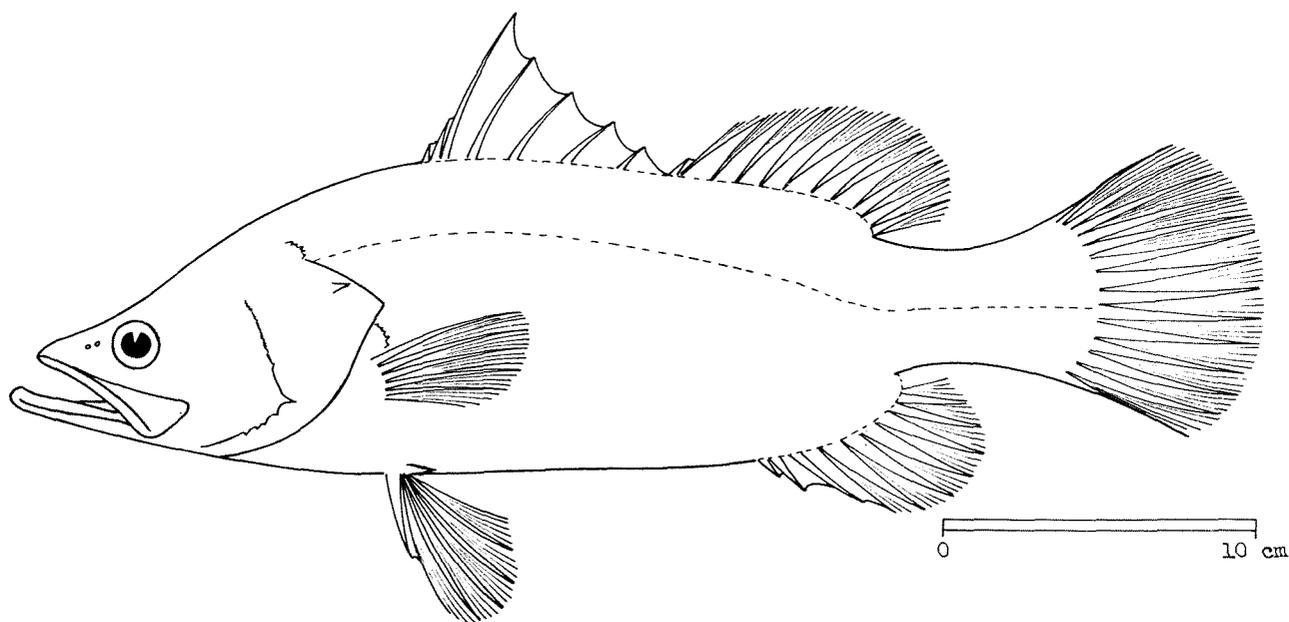
(The generic names *Chanda*, *Hamittonia*, *Bogoda*, *Pseudambassis*, etc. have been used for species of *Ambassis*, but this group of species is badly in need of revision.)

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: CENTROPOMIDAE

FISHING AREAS 57,71
(E Ind. Ocean)
(W Cent. Pacific)*Lates calcarifer* (Bloch, 1790)

SYNONYNE STILL IN USE: None



VERNACULAR NAMES:

FAO: En - Giant seaperch
Fr -
SP -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body elongate, compressed, with a deep caudal peduncle. Head pointed, with concave dorsal profile becoming convex in front of dorsal fin. Mouth large, slightly oblique, upper jaw reaching to behind eye; teeth villiform, no canines present. Lower edge of pre-operculum with a strong spine; operculum with a small spine and with a serrated flap above origin of lateral line. Dorsal fin with 7 to 9 spines and 10 to 11 soft rays; a very deep notch almost dividing spiny from soft part of fin; pectoral fin short and rounded, several short, strong serrations above its base; dorsal and anal fins both have scaly sheaths; anal fin rounded, with 3 spines and 7 to 8 soft rays; caudal fin rounded. Scales large, ctenoid (rough to touch).

Colour: two phases, either olive brown above with silver sides and belly (usually juveniles) or green/blue above and silver below. No spots or bars present on fins or body.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Psammoperca Waigiensis: lower edge of operculum smooth, tongue with patch of small teeth (no teeth on tongue in *L. calcarifer*) and upper jaw reaching to below eye (behind eye in *L. calcarifer*).

Lateolabrax japonicus: black spots on the body and fins, a slightly forked tail, dorsal fin with 13 to 14 spines, the 4th spine longest (3rd spine longest in *L. calcarifer*).

Ambassis species: caudal fin forked; also, no axillary scale at base of pelvic fin.

SIZE:

Maximum: 200 cm; common: 25 to 100 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

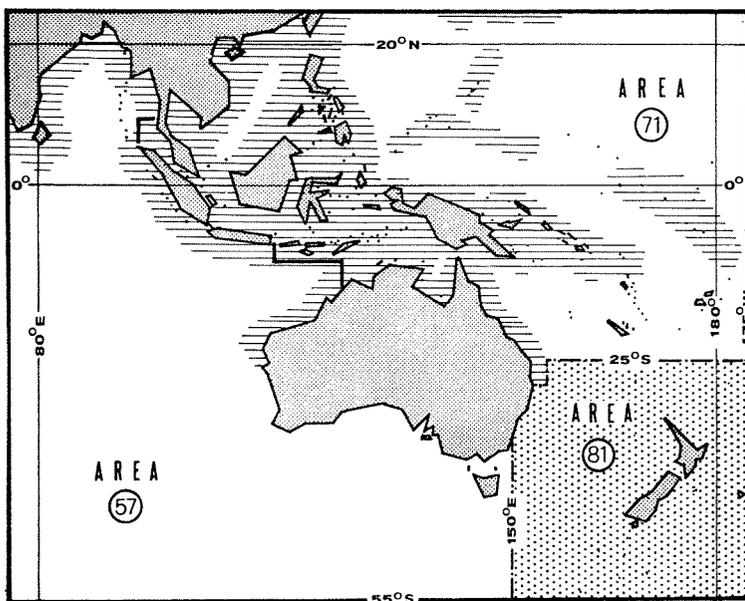
Throughout northern part of area and southward to Queensland (Australia); also, westward to East Africa.

Coastal waters, estuaries and lagoons, including brackish waters. Usually occurs at depths of 10 to 40 m.

Feeds on fish and crustaceans.

PRESENT FISHING GROUNDS:

Caught in estuaries and coastal waters, down to 40 m. Catch rates often show seasonal fluctuation, e.g. in Hong Kong much of the catch is landed in winter when the fish congregate off the mouth of the Pearl River.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught mainly with bottom trawls, handlines, bottom gillnets and traps; also esteemed as an exciting sport fish.

Marketed mostly fresh.

FAO SPECIES IDENTIFICATION SHEETS

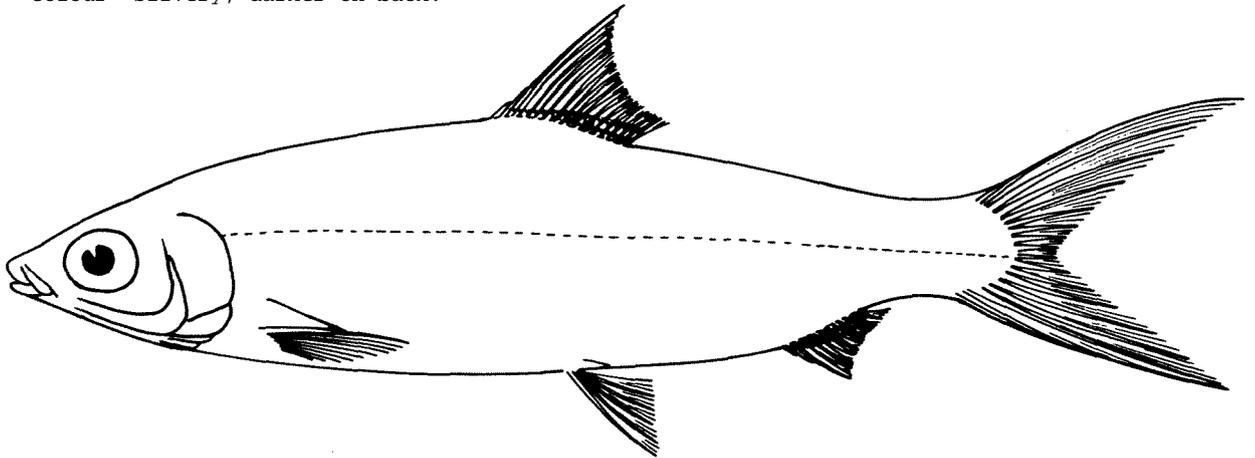
FISHING AREAS 57,71
(E Ind. Ocean)
(W Cent. Pacific)

CHANIDAE

Milkfishes

Body elongate, moderately compressed, without scutes along belly. Adipose (fatty) tissue covering eye. 4 branchiostegal rays. Maxilla short, not reaching back beyond eye centre; lower jaw with symphyseal tubercle. Supramaxillae not present. No gular plate (small bony plate between arms of lower jaw). Dorsal and anal fins with basal sheath of scales; large axillary scales at base of pectoral and pelvic fins; caudal fin deeply forked. Scales small, cycloid (smooth); lateral line present.

Colour: silvery, darker on back.



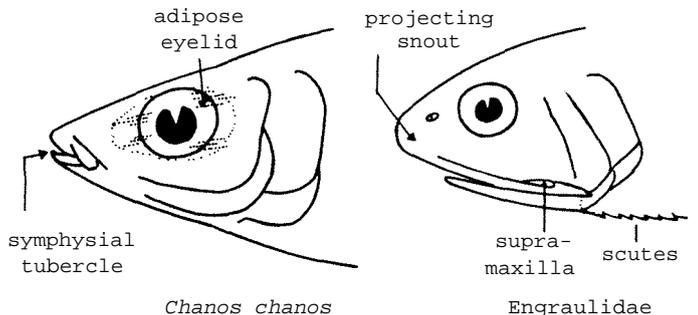
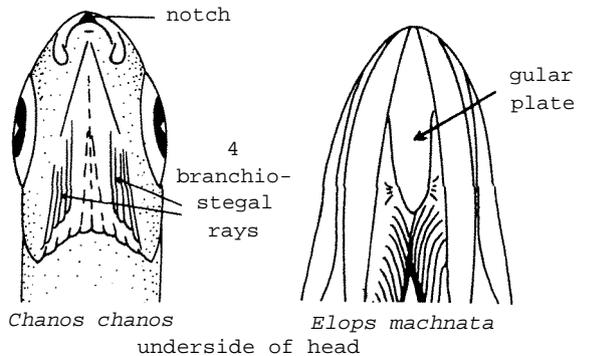
SIMILAR FAMILIES OCCURRING IN THE AREA:

Clupeidae: usually have abdominal scutes; also, no lateral line and more than 4 branchiostegal rays (except *Hyperlophus*, which has predorsal scutes).

Megalopidae: have a gular plate, large scales and last dorsal ray prolonged into a filament.

Elopidae: have a gular plate, a long maxilla (reaching far behind eye) and supramaxillae in upper jaw.

Engraulidae: have a pig-like snout, keeled scutes on belly, 1 or 2 supra-maxillae in upper jaw and no lateral line.



Key to Genera

Chanos only

List of Species occurring in the Area
(Code numbers are given for those species
for which Identification Sheets are included)

Chanos chanos

CHAN Chan 1

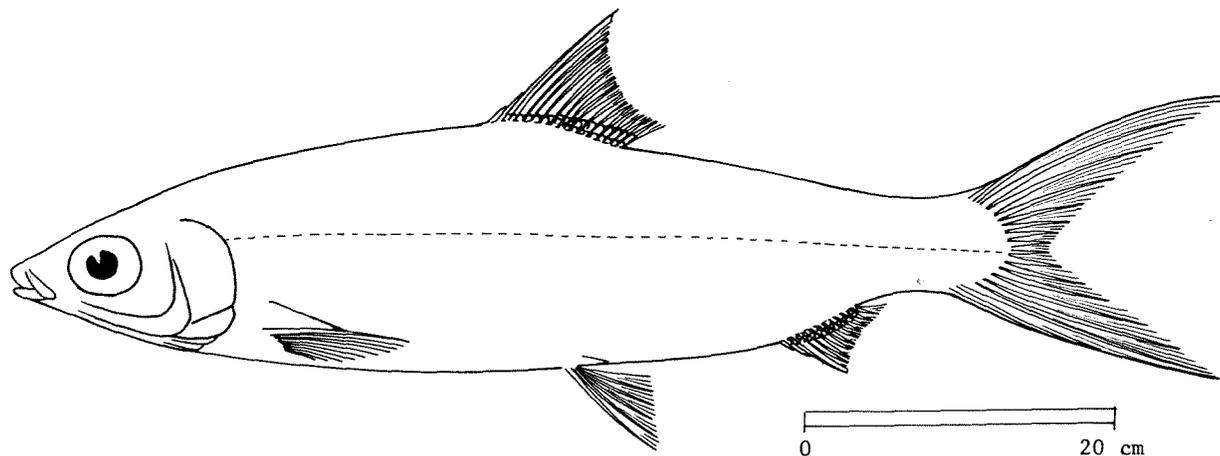
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: CHANIDAE

FISHING AREAS 57,71
(E Ind. Ocean)
(W Cent. Pacific)

Chanos chanos (Forsskål)

SYNONYMS STILL IN USE: None



VERNACULAR NAMES:

FAO: En - Milkfish
Fr -
SP -

NATIONAL:

DISTINCTIVE CHARACTERS:

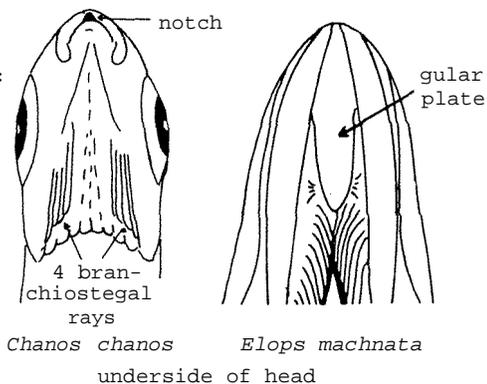
Body elongate, moderately compressed, with no scutes along belly. 4 branchiostegal rays. Mouth small, transverse, without teeth; upper jaw slightly projecting, with no supramaxillae; lower jaw with a small symphyseal tubercle at tip, fitting into a notch. No gular plate. Dorsal fin at mid point of body with 13 to 17 soft rays; anal fin short, with 9 to 11 soft rays, close to caudal fin; pectoral and pelvic fins with large axillary scales; caudal fin deeply forked. Scales small, cycloid (smooth); lateral line present.

Colour: back olive green, sides silvery. Dorsal, anal and caudal fins with black margin. Inside of pectoral and pelvic fins dark.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Clupeidae: abdominal scutes present; also, no lateral line and more than 4 branchiostegal rays (except *Hyperlophus*, which has pre-dorsal scutes).

Megalops cyprinoides: a gular plate present, but scales very large and last dorsal ray prolonged into a filament.



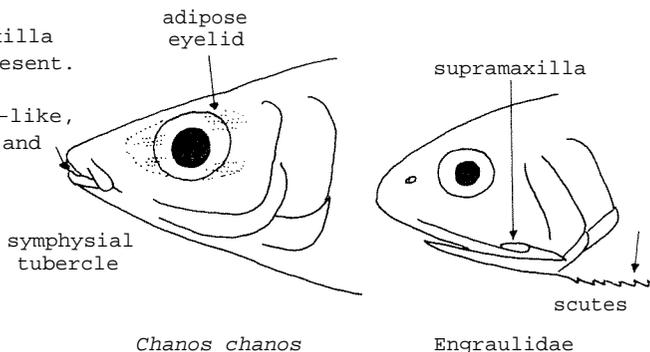
Chanos chanos *Elops machnata*
underside of head

Elops machnata: a gular plate present but maxilla long (reaching far behind eye) and supramaxillae present.

Species of Engraulidae (anchovies): snout pig-like, keeled scutes on belly, supramaxillae in upper jaw and no lateral line.

SIZE:

Maximum: 180 cm; common: about 100 cm.



GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Throughout entire area; also found throughout Indo-Pacific.

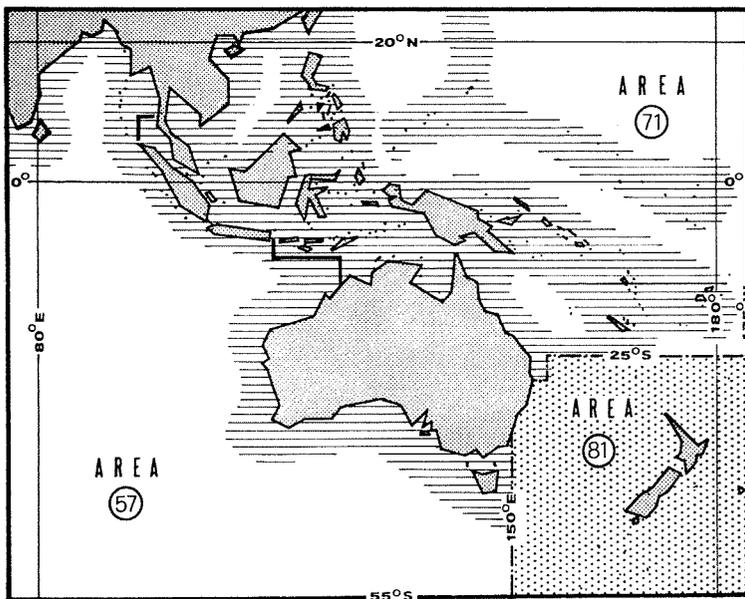
Found in coastal waters, entering estuaries, rivers and lakes.

Feeds on bottom invertebrates

For further details, see FAO Species Synopsis No. FB/54 (1960).

PRESENT FISHING GROUNDS:

Shallow waters of the continental shelf; also largely cultured in tanks and ponds (the larvae being brought in from the sea for this purpose).



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

Separate statistics for this species are reported by the Philippines only (1972: 98 900 tons).

Caught mainly with scoop nets, drag nets, set nets and traps.

Marketed fresh, smoked, canned or frozen.

FAO SPECIES IDENTIFICATION SHEETS

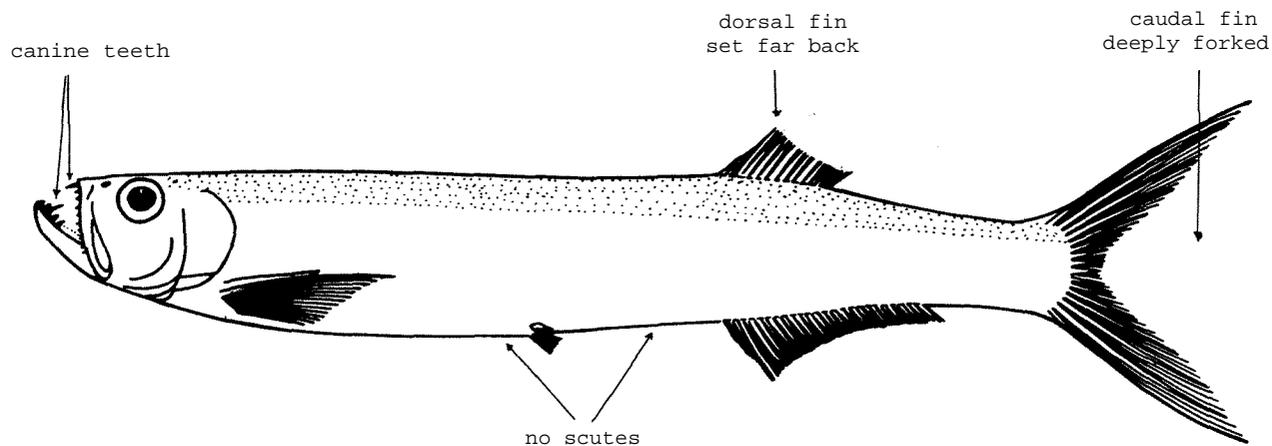
FISHING AREAS 57,71
(E Ind. Ocean)
(W Cent. Pacific)

CHIROCENTRIDAE

Wolf-herrings

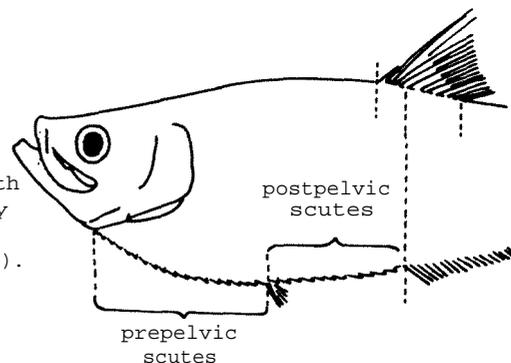
Very elongate, highly compressed fishes resembling the Clupeidae (herrings, sardines) but without scutes along belly. Large canine teeth in both jaws. No spiny rays in fins; a single dorsal fin set well behind midpoint of body; pectoral fins set low on body; pelvic fins about equidistant between pectoral base and anal origin; anal fin origin below anterior dorsal fin base; caudal fin deeply forked.

Colour: blue/green on back, sides silvery.



SIMILAR FAMILIES OCCURRING IN THE AREA:

Other fishes of similar appearance usually lack canine teeth in jaws; also, some have scutes along belly (Clupeidae) or body tapering to a point (*Trichiuridae*), or dorsal fin more advanced (*Engraulidae*), or two dorsal fins and body rounded (*Sphyraenidae*).



Key to Genera

Chirocentrus only

FAO Sheets

CHIROCENTRIDAE

Fishing Areas 57,71

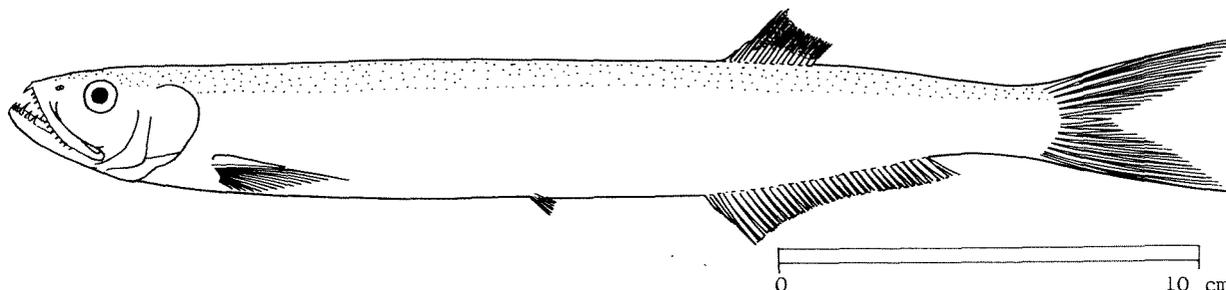
List of Species occurring in the Area
(Code numbers are given for those species
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Chirocentrus dorab CHIROC Chiroc 1

Chirocentrus nudus CHIROC Chiroc 2

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: CHIROCENTRIDAE

FISHING AREAS 57,71
(E Ind. Ocean)
(W Cent. Pacific)*Chirocentrus dorab* (Forsskål, 1775)SYNONYMS STILL IN USE: *Chirocentrus hypselosoma* Bleeker, 1852

VERNACULAR NAMES:

FAO: En - Dorab wolf-herring
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body elongate, strongly compressed, belly sharp but without scutes; scales very small, easily shed. Dorsal and anal fins set far back on body; pelvic fins very small. Large canine teeth in both jaws, note especially two canine teeth on pre-maxillae (front part of upper jaw) pointing forward. Anal fin origin about under that of dorsal fin; anal fin base twice or more than twice length of dorsal fin base.

Colour: blue/green on back, flanks silvery; upper part of dorsal fin black.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Chirocentrus nudus: pectoral fin length 13 to 18% of standard length (11 to 13% in *C. dorab*) and head depth at eye 10 to 13% of standard length (8 to 11% in *C. dorab*); dorsal fin white or colourless.

Clupeidae: scutes present along belly.

Trichiuridae: body tapering to a point.

SIZE:

Maximum: about 100 cm;
common: about 30 to 50 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

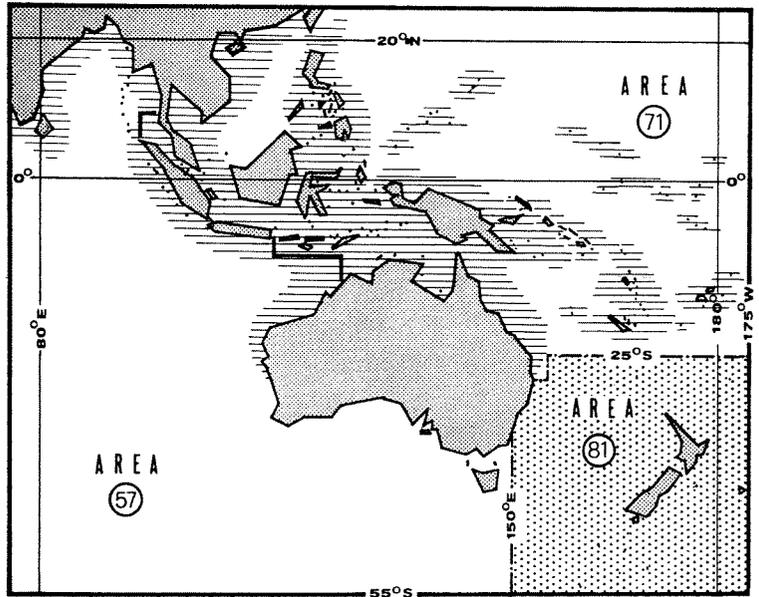
Throughout whole of northern part of area and tropical Australian waters; also, westward to East Africa and northward to Japan.

Coastal waters, pelagic, from the shore to about 120 m; common but -not abundant.

Predator, probably feeding on small fishes, crustaceans.

PRESENT FISHING GROUNDS:

Caught throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

C. dorab and *C. nudus* are usually included in a single statistical category. The total reported catch of wolf-herrings, in 1972 was:

area 57 (Eastern Indian Ocean): 4 500 tons (India only)
area 71 (Western Central Pacific): 4 200 tons (Malaysia: 4 100 tons;
Singapore: 100 tons)

Caught with fish traps, gill nets and bottom trawls.

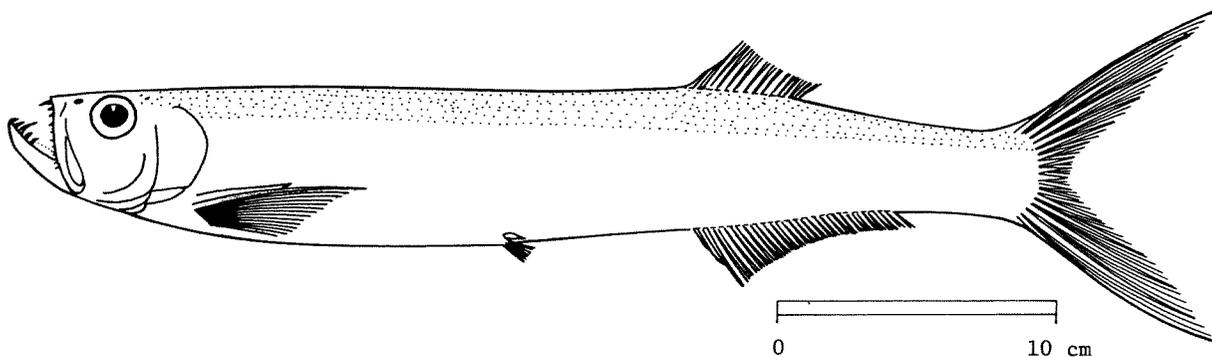
Marketed fresh and made into fish balls.

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: CHIROCENTRIDAE

FISHING AREAS 57,71
(E Ind. Ocean)
(W Cent. Pacific)*Chirocentrus nudus* Swainson, 1839

SYNONYMS STILL IN USE: None



VERNACULAR NAMES:

FAO: En - Whitefin wolf-herring
Fr -
SP -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body elongate, strongly compressed, belly sharp but without scutes; scales very small, deciduous. Dorsal and anal fins set far back on body; pelvic fins very small. Large canine teeth in both jaws, note especially two large canine teeth on pre-maxillae (front part of upper jaw) pointing forward. Anal fin origin only slightly behind that of dorsal; anal fin base twice or more than twice length of dorsal fin base.

Colour: blue/green on back, flanks silvery; dorsal fin entirely white or colourless.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Chirocentrus dorab: pectoral fin length 11 to 137 of standard length (13 to 187 in *C. nudus*) and head depth at eye 8 to 117 of standard length (10 to 137 in *C. nudus*); also, upper part of dorsal fin black.

Clupeidae: scutes present along belly.

Trichiuridae: body tapering to a point.

SIZE:

Maximum: about 100 cm; common: 30
common: 30 to 50 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

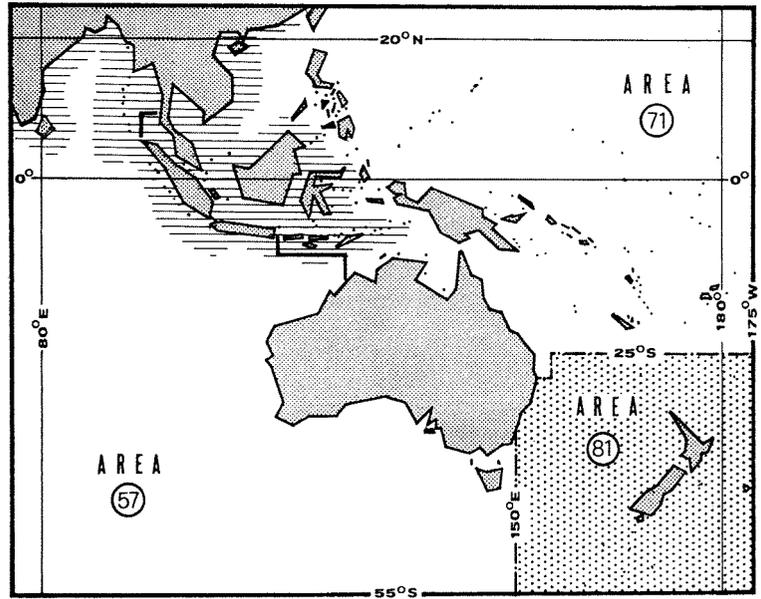
Throughout most of northern part of area, but perhaps not to Australian coasts; also, westward to East African coasts and northward to Canton.

Coastal waters, pelagic; common but not abundant.

Predator, probably feeding on small fishes, crustaceans.

PRESENT FISHING GROUNDS:

Caught throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

C. dorab and *C. nudus* are usually included in a single statistical category. The total reported catch of wolf-herrings in 1972 was:

area 57 (Eastern Indian Ocean): 4 500 tons (India only)
area 71 (Western Central Pacific): 4 200 tons (Malaysia: 4 100 tons;
Singapore: 100 tons)

Caught with fish traps, gill nets and bottom trawls.

Marketed fresh and made into fish balls.