

FAO SPECIES IDENTIFICATION SHEETS

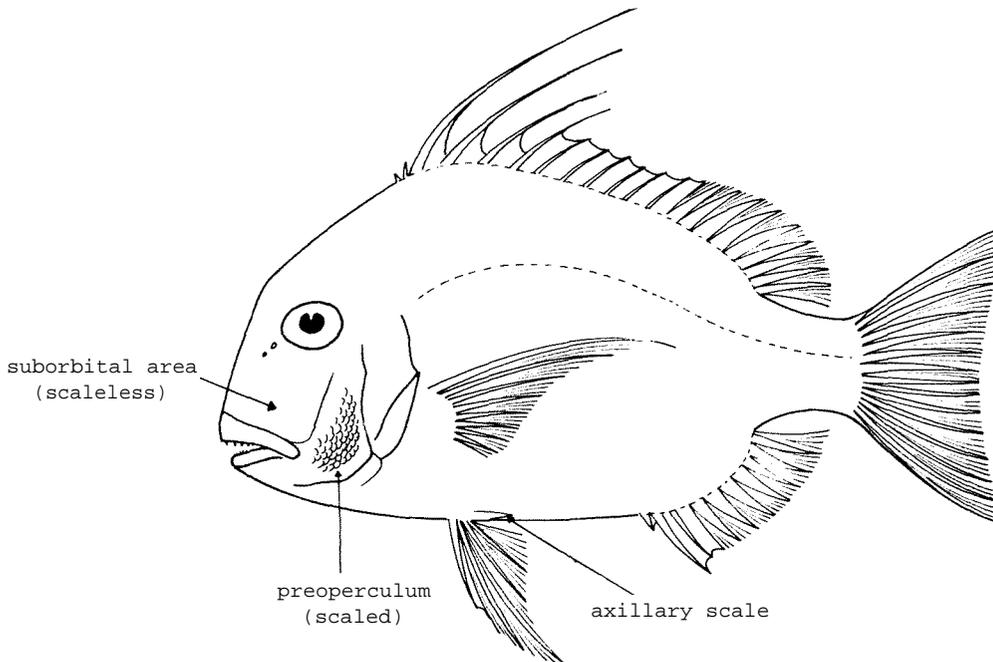
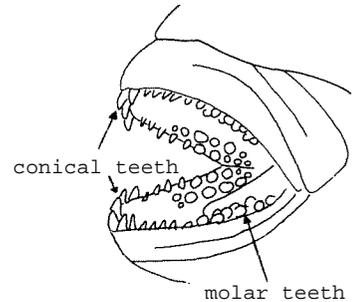
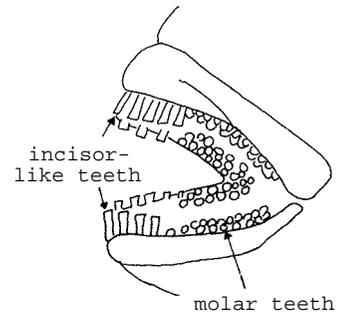
FISHING AREAS 57,71
(E Ind. Ocean)
(W Cent. Pacific)

SPARIDAE

Seabreams, porgies

Body oblong, usually deep and more or less compressed, head large, often with steep upper profile; snout scaleless. Mouth small, upper jaw not reaching beyond eye centre; hind tip of premaxilla overlaps maxilla. Jaw teeth usually differentiated into conical, incisor-like or canine teeth in front and rounded, molar-like teeth behind; palate usually toothless. Suborbital area scaleless, with hind margin not serrated. Posterior nostril the larger. Preoperculum scaled, without spines or serrations on margin. Dorsal fin single, with 10 to 13 stout spines and 10 to 15 soft rays, last spines and first rays usually of about same length, anterior spines sometimes elongate or filamentous; pectoral fins long and pointed; pelvic fins below or just behind pectoral fin base, with 1 spine and 5 soft rays, axillary scales present; anal fin with 3 spines and 8 to 12 rays, the spines, especially the 2nd, often stout; caudal fin emarginate or forked. Scales cycloid (smooth) or weakly ctenoid (rough to touch); a single, continuous lateral line.

Colour: overall colour very variable, from silvery to reddish to almost black; bright patterns not usually found, although some species have vertical bars on body, especially when young, and others have small spots along each scale row or small bright blue spots scattered on upper sides.



SIMILAR FAMILIES OCCURRING IN THE AREA:

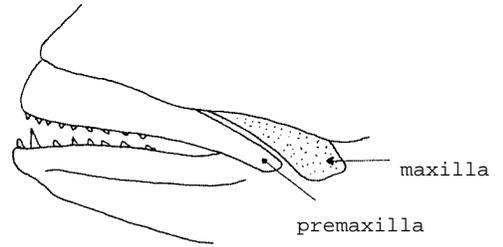
Pentapodidae: maxilla not overlapped by hind tip of premaxilla; also, molar teeth only in *Monotaxis*

Serranidae: similar species lack pelvic axillary scales.

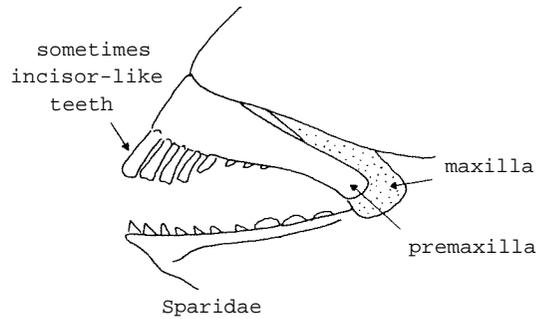
Kyphosidae: head small and scales present on snout.

Lutjanidae, Pomadasyidae: margin of preoperculum serrated; also, no molar teeth in jaws.

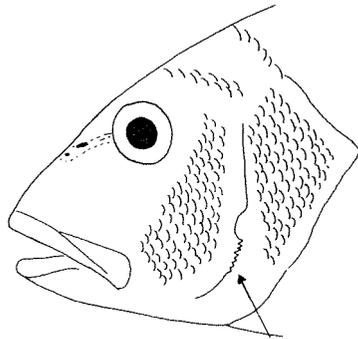
Lethrinidae: no scales on preoperculum and 8 to 9 rays in soft part of dorsal fin (10 or more in Sparidae).



Pentapodidae



Sparidae



preoperculum serrated

Lutjanidae

Key to Genera

1 a. Elongated spines in dorsal fin

2 a. Dorsal fin with 1st and 2nd spines minute (Fig. 1)

Argyrops

Argyrops

Fig. 1

2 b. Dorsal fin with 1st and 2nd spines well developed (Fig. 2)

Evynnis

1 b. No elongated spines in dorsal fin

3 a. 2nd anal spine much longer than 3rd (Fig. 3)

Mylio

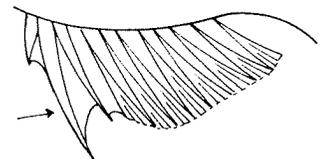
3 b. 2nd anal spine not markedly longer than 3rd

Evynnis

Fig. 2

4 a. No molar teeth present in jaws; back with 3 golden yellow spots

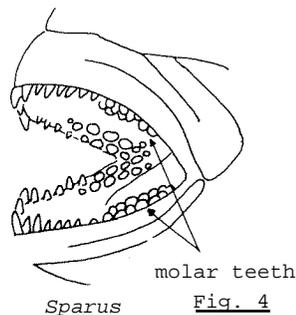
Taius



Mylio

Fig. 3

- 4 b. Molar teeth present in jaws (Fig. 4);
back without yellow spots
 - 5 a. Reddish with small blue spots on upper sides;
7 to 9 soft anal rays ... *Sparus*
 - 5 b. Not reddish in colour and without small blue spots; 11 to 12 soft anal rays *Rhabdosargus*



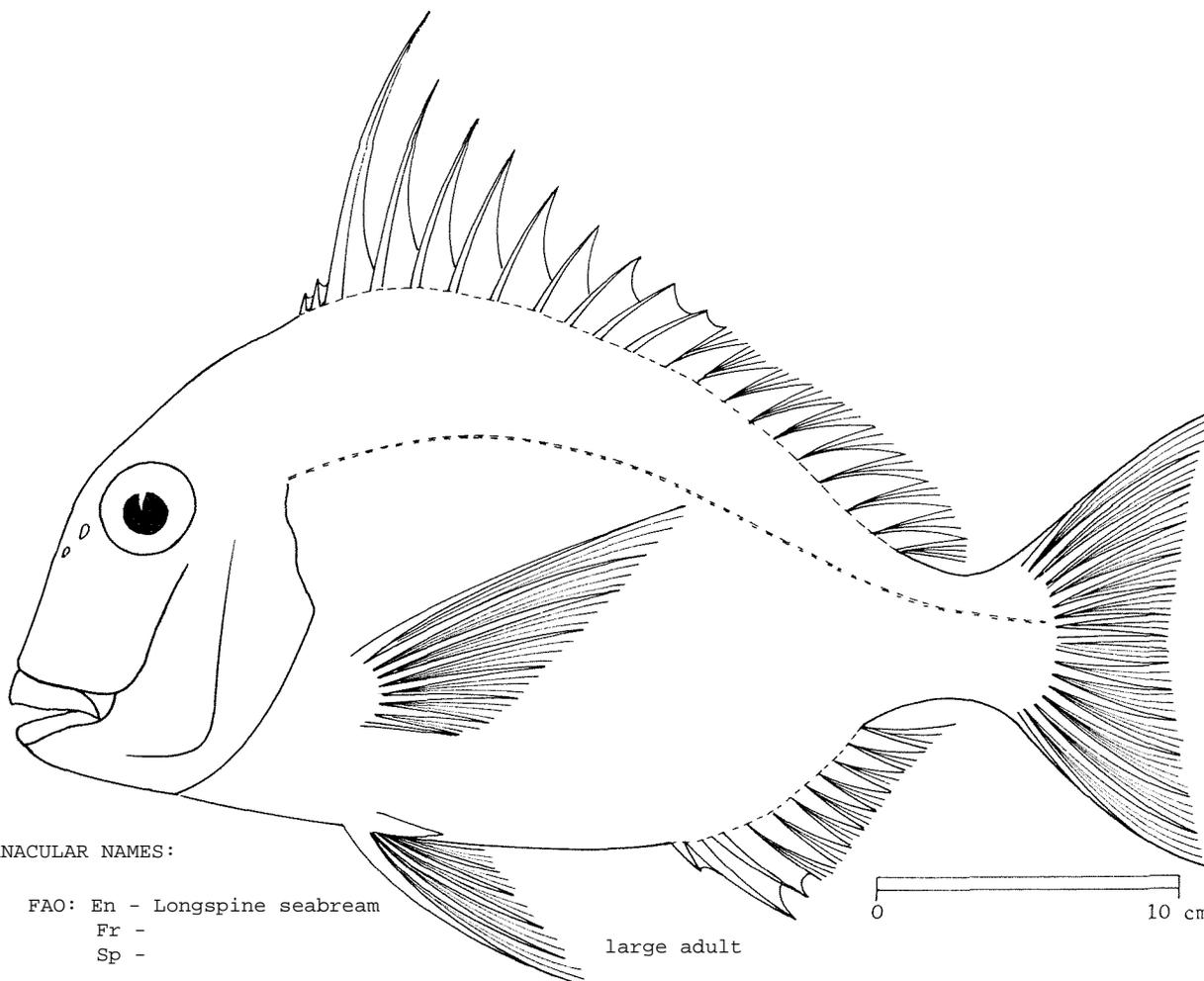
List of Species occurring in the Area*
(Code numbers are given for those species for which Identification Sheets are included)

<i>Argyrops filamentosus</i>		<i>Rhabdosargus sarba</i>	SPARID Rhab 1
<i>Argyrops spinifer</i>	SPARID Argy 1		
<i>Evynnis cardinalis</i>	SPARID Evyn 1	<i>Sparus auratus</i>	SPARID Spar 2
<i>Evynnis japonicus</i>		<i>Sparus major</i>	
<i>Mylio berda</i>	SPARID Myl 1	<i>Taius tumifrons</i>	SPARID Tai 1
<i>Mylio bifasciatus</i>			
<i>Mylio latus</i>	SPARID Myl 2		
<i>Mylio macrocephalus</i>			

* Probably incomplete. The family requires a full revision

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SPARIDAE

FISHING AREAS 57,71
(E Ind. Ocean)
(W Cent. Pacific)*Argyrops spinifer* (Forsskål, 1775)SYNONYMS STILL IN USE: *Sparus spinifer* Forsskål, 1775

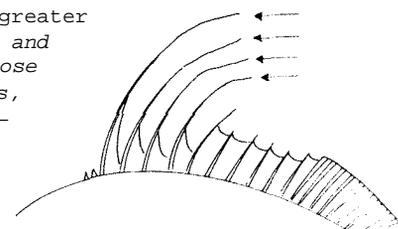
VERNACULAR NAMES:

FAO: En - Longspine seabream
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body robust and very deep, strongly compressed, depth of head much greater than its length, especially so in large fish; upper profile of head steep and almost straight or slightly concave from upper jaw to eye; eye large, close to front profile. Dorsal fin single, with 11 to 12 spines and 10 soft rays, the first 2 spines very short, 3rd to 5th spines (sometimes to 7th) flattened and much elongated (in young fish reaching to level of caudal fin, shorter in older fish); soft dorsal fin rays all approximately equal in length. Anal fin with 3 spines and 8 to 9 soft rays, 1st spine short, 2nd and 3rd of equal length or 2nd slightly longer. Caudal fin emarginate with pointed lobes. Scales large; soft parts of dorsal and anal fins with a low scaly sheath.



dorsal fin

A. *spinifer* (medium-sized adult)

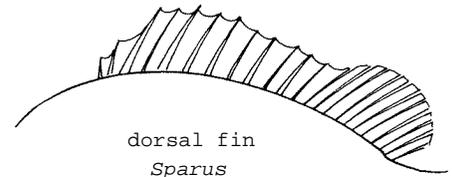
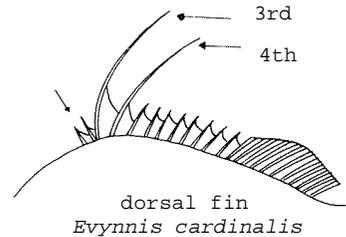
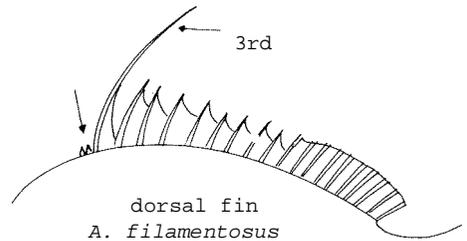
Colour: head and body mainly silvery with red iridescence, particularly on upper sides and head. Usually red on margin of upper part of gill cover; all fins red. Young fish with several vertical red bars on body.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Argyrops filamentosus: only the 3rd and sometimes the 4th dorsal fin spines elongated (3rd to 5th spines, and sometimes to 7th, elongated in *A. spinifer*); also, 2nd anal fin spine longer and stouter than 3rd spine.

Evynnis species: 1st and 2nd dorsal fin spines well developed, and only 3rd and 4th spines filamentous; also, head profile much less steep in *E. cardinalis*.

Sparus species: no elongated or filamentous spines in dorsal fin.



SIZE:

Maximum: 60 cm; common: 20 to 35 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

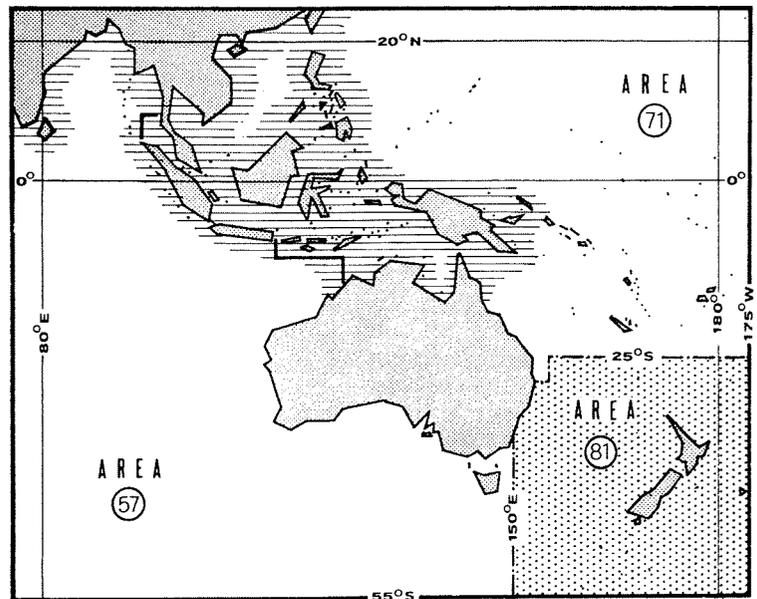
Throughout most of northern part of area southward to northern Australia; also, westward to East Africa.

Inhabits a wide range of bottoms, at depths of 5 to 100 m. Young fish of 5 to 10 cm are sometimes extremely abundant in very shallow water in sheltered bays. Larger fish occur in deeper water.

Feeds on bottom-living invertebrates.

PRESENT FISHING GROUNDS:

Shallow to moderate depths, throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

Separate statistics are not reported for this species. The total reported catch of Sparidae in 1972 was:

- area 57 (Eastern Indian Ocean: 1 500 tons (Australia only)
- area 71 (Western Central Pacific): 200 tons (Australia only)

Caught mainly with bottom trawls and set and handlines; also with stake traps and fish traps.

Marketed usually fresh, whole; small quantities are dried-salted.

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SPARIDAE

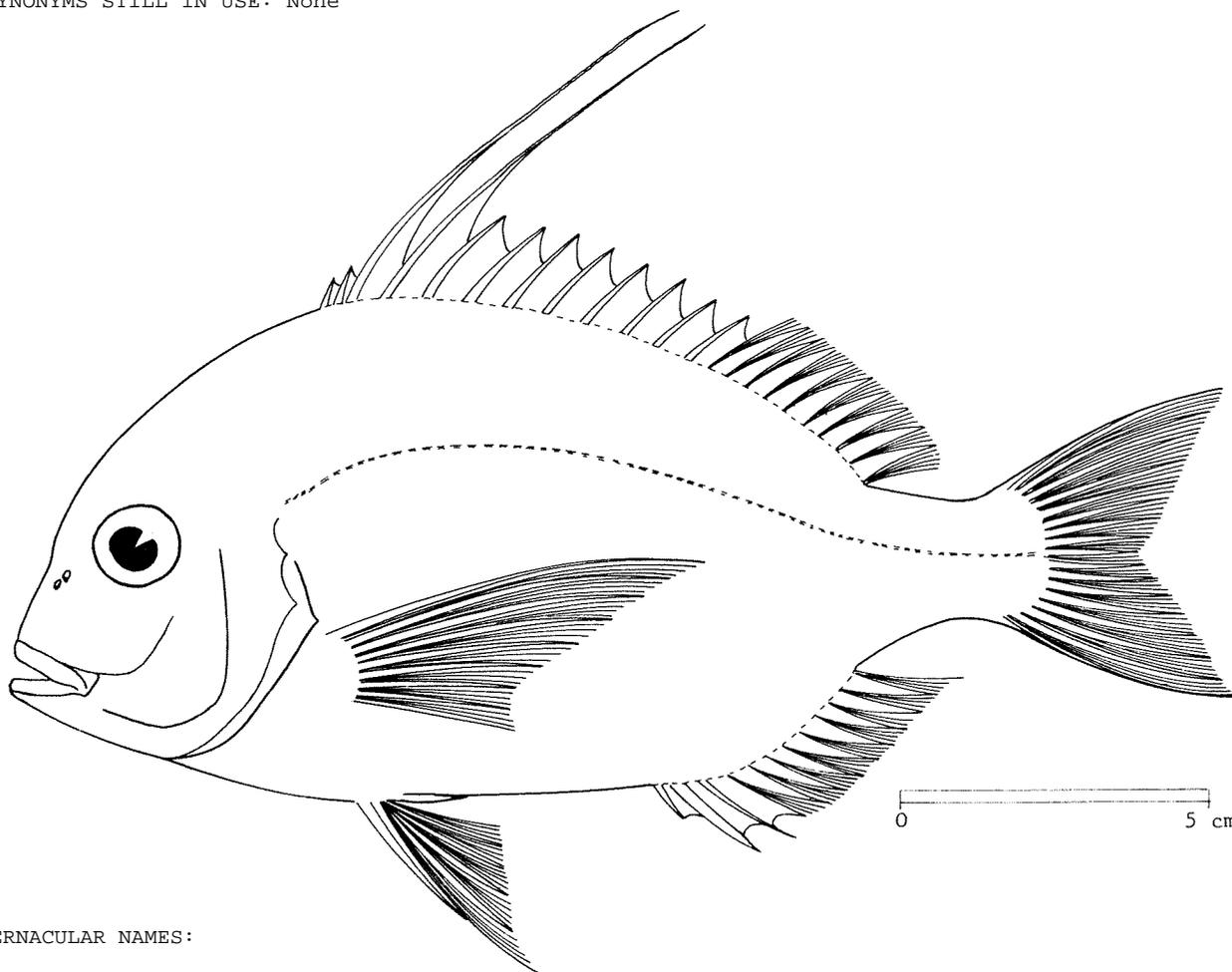
FISHING AREAS 57,71

(E Ind. Ocean)

(W Cent. Pacific)

Evynnis cardinalis (Lacepède, 1802)

SYNONYMS STILL IN USE: None



VERNACULAR NAMES:

FAO: En - Cardinal seabream
 Fr -
 Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body robust and deeper than head, strongly compressed, depth of head much greater than its length; upper profile of head oblique, often with a bulge near eye; eye moderate in size, close to front profile. Dorsal fin single, with 12 spines and 10 to 11 soft rays, the first 2 spines short but well developed, 3rd and 4th (and sometimes 5th) spines elongated as fine filaments, the remaining spines becoming slightly shorter toward tail; soft part of dorsal fin slightly higher than posterior part of spinous fin. Anal fin with 3 spines and 2 to 9 soft rays, 1st spine short, 2nd and 3rd about equal in length but 2nd a little shorter. Caudal fin slightly forked with pointed lobes. Scales large.

Colour: pale, silvery pink, but more red on head, upper sides, fins and especially on filaments of dorsal fin. Rows of pale blue spots along scale rows.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Evynnus japonicus: 3rd and 4th dorsal fin spines long but not filamentous.

Argyrops spinifer: front profile of head almost vertical; first 2 dorsal fin spines very short; also, dorsal fin spines 3 to 5 (sometimes 3 to 7) elongated as broad filaments, and in young fish, vertical red bars present on body.

Argyrops filamentosus: first 2 dorsal fin spines very short; also, only 3rd dorsal fin spine elongated.

Sparus species: lack elongated or filamentous spines in dorsal fin.

SIZE:

Maximum: 40 cm; common: 15 to 25 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Northern part of South China Sea to Japan, including northern part of the Philippines.

Occurs over a wide range of bottom types from the surface to 100 m, but is more common close to reefs or on rough bottoms. Small fish are very abundant at some localities in shallow, sheltered bays; larger fish usually occur in deeper water.

PRESENT FISHING GROUNDS:

Shallow parts of the continental shelf throughout its range, especially close to reefs or over rough bottoms.

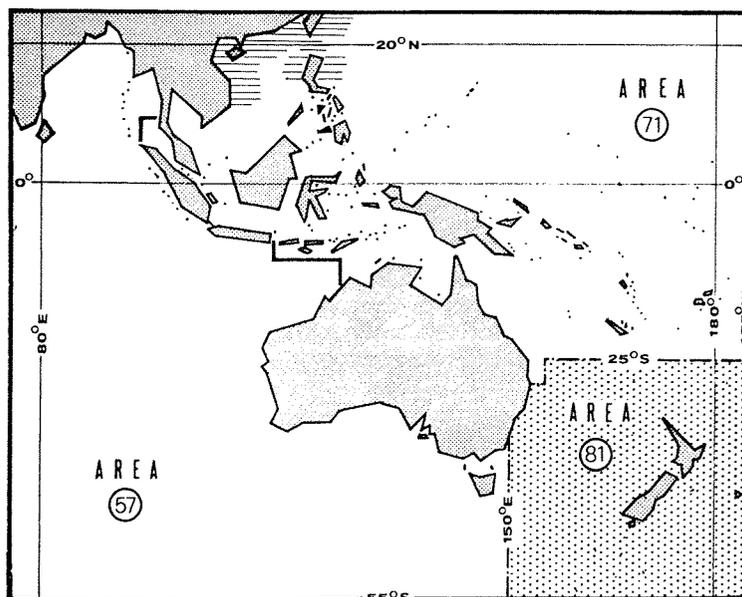
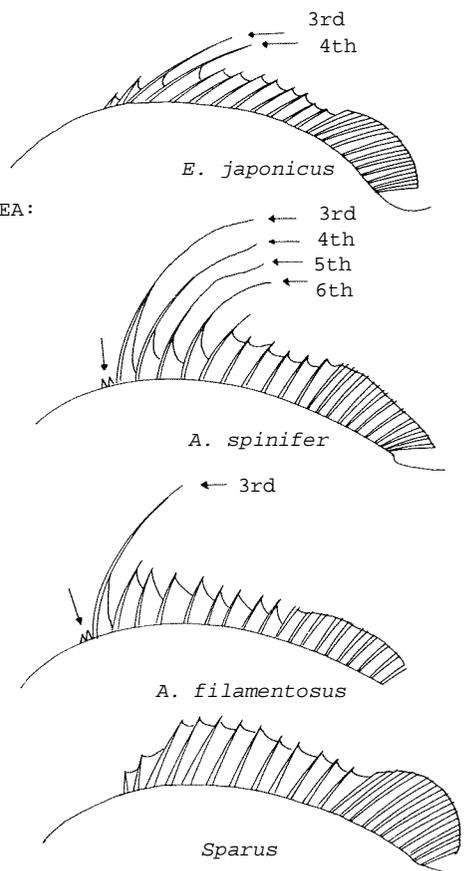
CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

Separate statistics are not reported for this species. The total reported catch of Sparidae in 1972 was:

- area 57 (Eastern Indian Ocean): 1 500 tons (Australia only)
- area 71 (Western Central Pacific): 200 tons (Australia only)

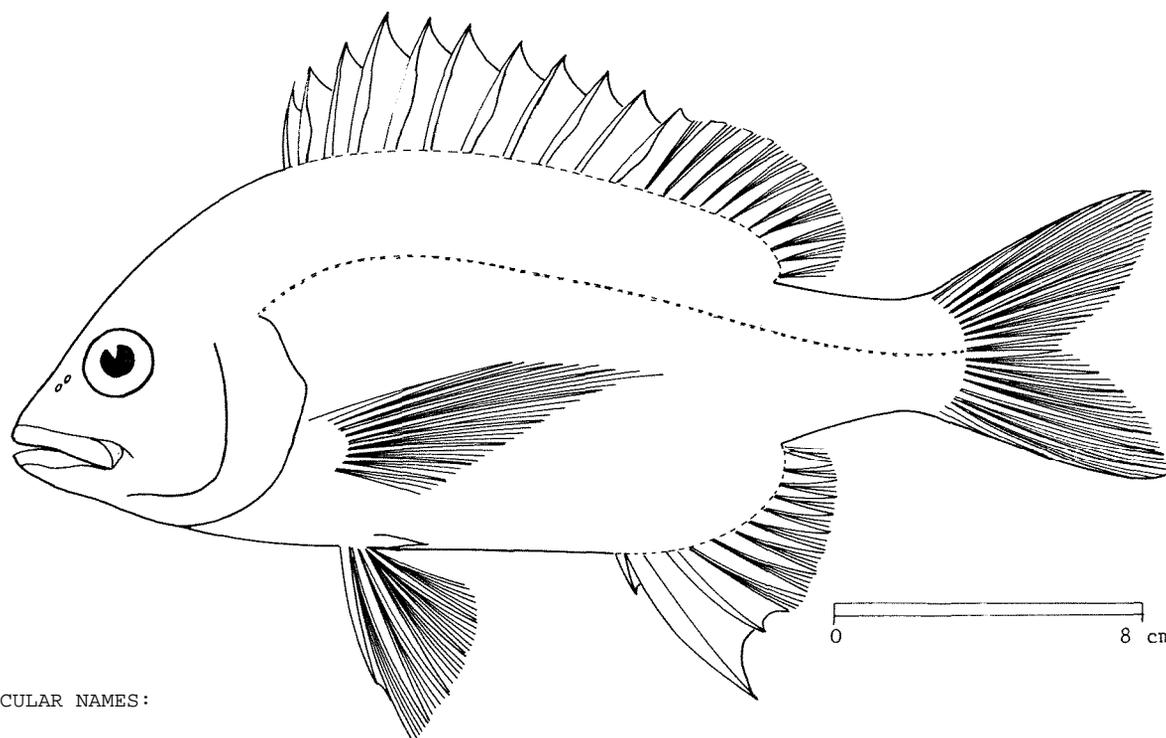
Caught mainly with bottom trawls, longlines and handlines.

Marketed mostly fresh, whole.



FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SPARIDAE

FISHING AREAS 57, 71
(E Ind. Ocean)
(W Cent. Pacific)*Myllo berda* (Forsskål, 1775)SYNONYMS STILL IN USE: *Sparus berda* Forsskål, 1775

VERNACULAR NAMES:

FAO: En - Picnic seabream
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body fairly deep, compressed; head large, rather pointed, *its upper profile oblique, often with a bulge above eye*; eye moderate in size. Operculum with a small spine. Dorsal fin single with 11 spines and 11 to 12 soft rays; 1st spine nearly as long as 2nd, which is shorter than the 3rd; 3rd to 5th spines longest, but with no filaments or elongated spines; spines appear alternately broad and narrow on either side; soft part of dorsal fin equal to or lower than spiny part. Pelvic fins with a strong spine. Anal fin with 3 spines and 8 to 9 soft rays, the 1st spine short (much shorter than eye diameter), 2nd spine very long and strong, flattened laterally, 3rd spine shorter than 2nd, but 1st soft anal rays longer than 3rd spine. Caudal fin slightly forked with rounded lobes. Scales large; dorsal and anal fins with a scaly sheath.

Colour: grey, dark silver/grey, or dull olive/brown, with silvery or brassy reflections; upper part of body and base of scales darkest; lower part of head and body paler. Dorsal and anal fins with darker margins; dorsal fin spines often silvery; pectoral fins dusky yellow, pelvic and anal fins blackish. Caudal fin darker at margin.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Mylio latus: pale spots along scale rows, a dark spot at origin of lateral line and pelvic and anal fins dusky at base, yellow at margin.

Mylio macrocephalus: all fins black or dusky.

Gymnocranius griseus: has vertical darker bands on body (especially in juveniles) and 2nd anal fin spine not longer or stouter than 3rd spine.

Haplogenyis species: spiny and soft parts of dorsal fin separated by deep notch; also, caudal fin usually rounded.

Girella species: 14 to 15 spines in dorsal fin (10 in *M. berda*); also, spines in dorsal fin not appearing alternately broad and narrow.

Glaucosoma species: 2nd anal fin spine not stouter and longer than 3rd spine; also, caudal fin truncate.

SIZE:

Maximum: 80 cm; common: 30 to 50 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Throughout northern part of area and southward to Queensland and northwest coast of Australia; also, westward to Red Sea and northward to Japan.

A bottom-living fish, found mainly on rough and muddy-sand grounds in coastal waters, especially around river mouths and in estuaries, from shallow water to depths of 50 m. Young fish usually occur in shallow, sheltered bays.

Feeds on a wide range of bottom-living animals including molluscs, crustaceans, worms and echinoderms.

PRESENT FISHING GROUNDS:

Coastal waters throughout its range.

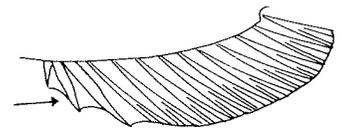
CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

Separate statistics are not reported for this species. The total reported catch of Sparidae in 1472 was:

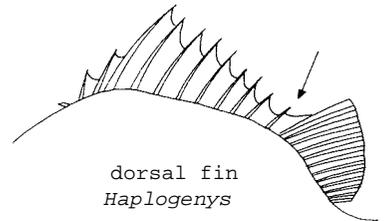
- area 57 (Eastern Indian Ocean): 1 500 tons (Australia only)
- area 71 (Western Central Pacific): 200 tons (Australia only)

Caught mainly with bottom trawls, handlines, gill nets and stake traps.

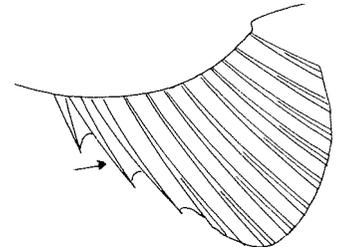
Marketed mostly fresh, whole; sometimes sold alive.



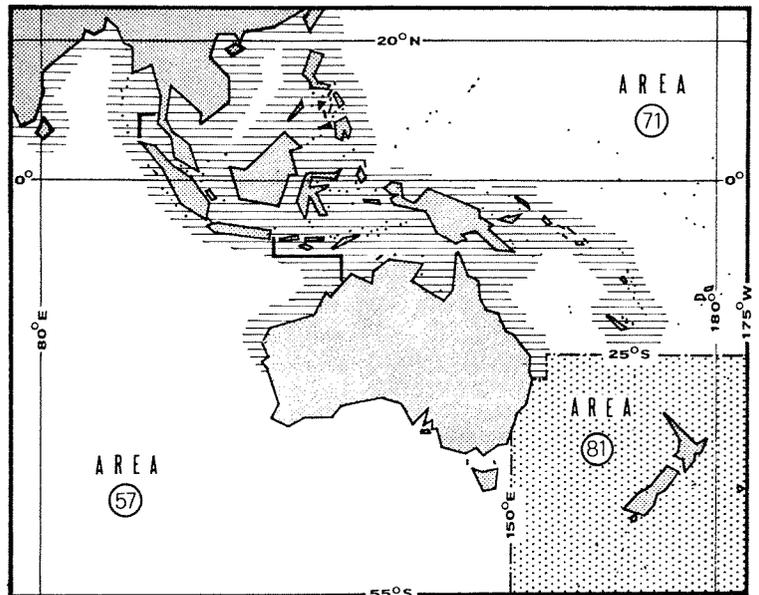
anal fin
Gymnocranius griseus



dorsal fin
Haplogenyis



anal fin
Glaucosoma



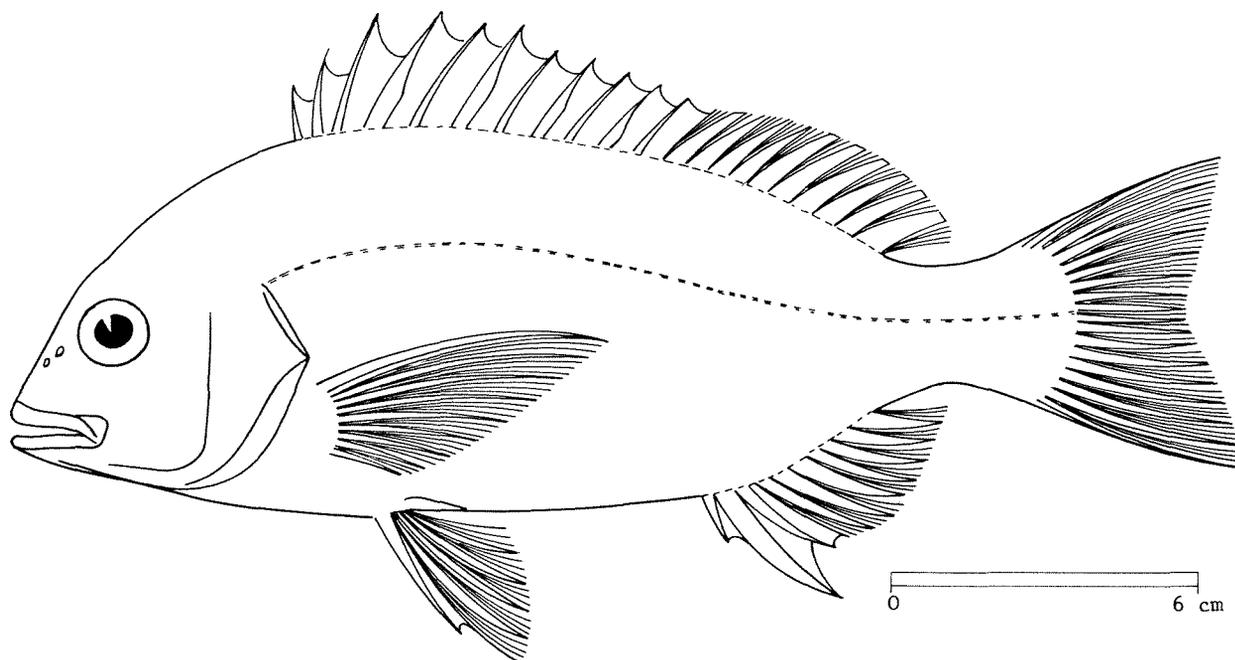
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SPARIDAE

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

<i>Mylio latus</i> (Houttuyn, 1782)

STILL IN USE: *Sparus latus* Houttuyn, 1782
? *Sparus datnia* (Hamilton - Buchanan, 1822)



VERNACULAR NAMES:

FAO: En - Yellowfin seabream
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body fairly deep, compressed. Head large, rather pointed; snout profile oblique, with a slight bulge above eye; eye moderate in size. Operculum with a small spine. Dorsal fin single, with 11 to 13 spines and 10 to 11 soft rays, the 1st spine about 1/2 the length of 2nd which is shorter than 3rd, 4th spine longest; spines appear alternately broad and narrow on either side; soft rays about same length as last spine. Anal fin with 3 spines and 8 to 9 soft rays, 1st spine short, 2nd very stout and larger than 3rd; 1st anal soft rays longer than 3rd spine. Caudal fin deeply emarginate with rounded lobes. Scales large; soft dorsal and anal fins with a scaly sheath.

Colour: silver grey, darker above, belly usually yellowish. Scales with dark bases and silvery edges (especially above lateral line); often a dark band between eyes and a dark spot at origin of lateral line. Pelvic fins yellow, pectoral and anal fins dusky at base, yellow at margin. Belly and lower caudal fin lobe yellow.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Mylio macrocephalus: all fins black or dusky.

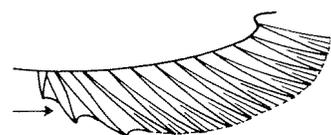
Mylio berda: pectoral fins yellow but pelvic and anal fins black or dusky; also, no silvery edges to scales and no dark spot at origin of lateral line.

Gymnocranius griseus: vertical darker bands on body (especially in juveniles) and 2nd anal fin spine not longer or stouter than 3rd spine.

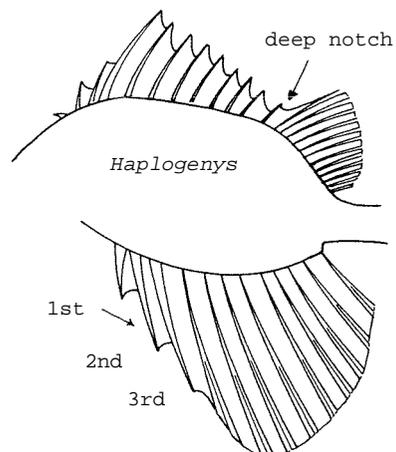
Haplogenyis species: spinous and soft parts of dorsal fin separated by a deep notch; also, caudal fin usually rounded.

Girella species: 14 to 15 spines in dorsal fin (11 to 13 in *M. latus*); also, spines in dorsal fin not appearing alternately broad and narrow.

Glaucosoma species: 2nd anal fin spine not stouter and longer than 3rd spine; also, caudal fin truncate.



anal fin
Gymnocranius griseus



SIZE:

Maximum: 45 cm; common: 20 to 35 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

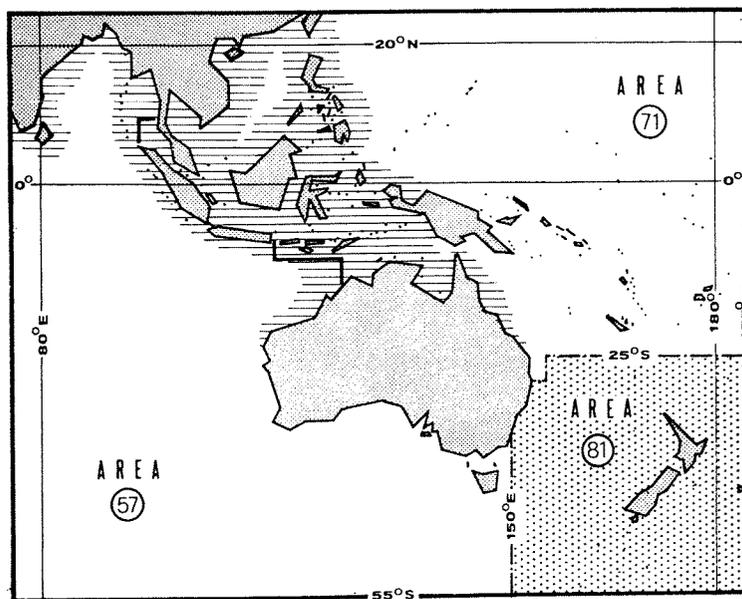
Throughout most of northern part of area and southward to northern coasts of Australia; also, westward to East Africa and northward to Japan.

Inhabits shallow coastal waters to depths of 50 m, and enters river mouths and estuaries.

Carnivorous, feeding on echinoderms, worms, crustaceans and molluscs.

PRESENT FISHING GROUNDS:

Coastal waters, throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

Separate statistics are not reported for this species. The total reported catch of Sparidae in 1972 was:

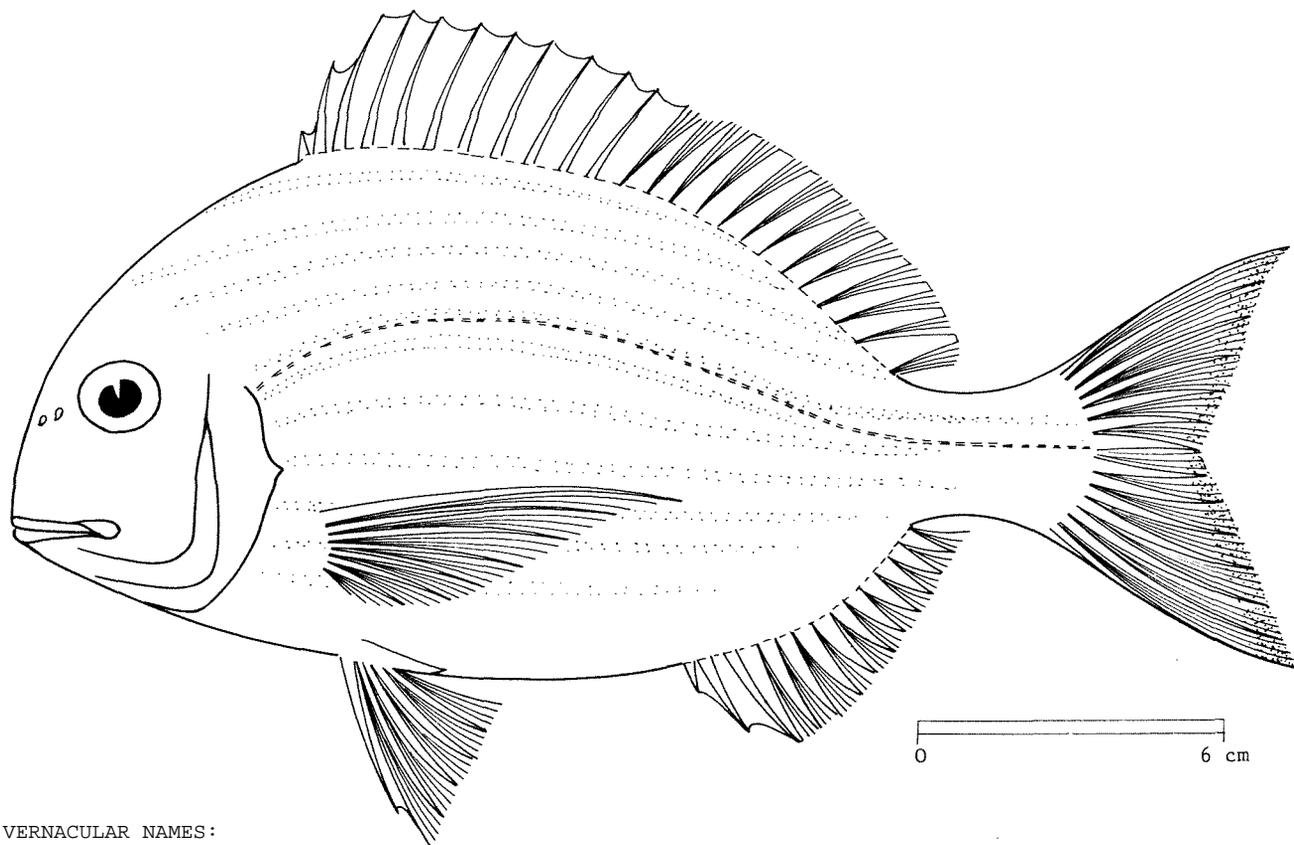
- area 57 (Eastern Indian Ocean): 1 500 tons (Australia only)
- area 71 (Western Central Pacific): 200 tons (Australia only)

Caught mainly with bottom trawls, gill nets and lines; also with stake traps.

Marketed mostly fresh, whole; sometimes sold alive.

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SPARIDAE

FISHING AREAS 57, 71
(E Ind. Ocean)
(W Cent. Pacific)*Rhabdosargus sarba* (Forsskål, 1775)SYNONYMS STILL IN USE: *Sparus sarba* Forsskål, 1775

VERNACULAR NAMES:

FAO: En - Goldlined seabream
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body deeper than head, compressed; head large, its length about 1/4 of standard length; upper profile convex, most strongly arched from snout to origin of dorsal fin; eye moderate in size. Mouth almost horizontal and low, close to the almost straight ventral profile; 4 to 5 rows of molar teeth in posterior part of upper, jaw, 3 to 4 rows in lower jaw, the last molar in each jaw largest. Dorsal fin single, with 11 to 12 spines and 13 to 15 soft rays, 3rd to 5th spines the longest. Anal fin with 3 spines and 11 to 12 soft rays, 1st spine short, 2nd slightly longer than or equal to 3rd, 1st soft ray longer than 3rd spine. Caudal fin deeply emarginate. Scales cycloid (smooth); dorsal and anal fins with a scaly sheath.

Colour: overall colour silver grey; each scale has a golden centre, so as to form longitudinal lines on body; belly with a yellow band, less conspicuous in large fish; dorsal fin hyaline at base, dusky at margin; pectoral and pelvic fins yellow; anal fin with hyaline base, yellow toward margin.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Mylio latus and *M. macrocephalus*: 2nd dorsal fin spine only 1/2 the length of 3rd spine (almost equal in *R. sarba*) and 2nd spine of anal fin much longer than 3rd spine; also, spines in dorsal fin appear alternately broad and narrow on each side.

Mylio berda: 2nd anal fin spine much longer than 3rd spine, and darker colouration without longitudinal rows of spots; also, spines in dorsal fin appear alternately broad and narrow.

Gymnocranius griseus: no horizontal rows of spots but has vertical bands on body and head (particularly in juveniles); also, dorsal fin with 10 spines and 10 soft rays (11 to 12 and 13 to 15 in *R. sarba*).

Girella species: 14 to 15 spines in dorsal fin (11 to 12 in *R. sarba*).

SIZE:

Maximum: 40 cm; common: 15 to 30 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Throughout most of northern part of area and southwards to New South Wales and northwestern coasts of Australia; also, westwards to East Africa and northwards to Japan.

A bottom-living coastal fish which often enters rivers and estuaries.

Spawning in Australia takes place near river mouths and after a short planktonic period the young fish move into estuaries where they spend a year before gradually moving into deeper water.

PRESENT FISHING GROUNDS:

Inshore waters and estuaries throughout its range.

CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

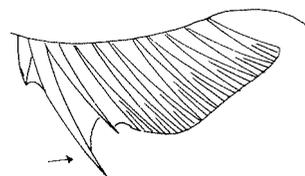
Separate statistics are not reported for this species. The total reported catch of Sparidae in 1972 was:

area 57 (Eastern Indian Ocean): 1 500 tons (Australia only)

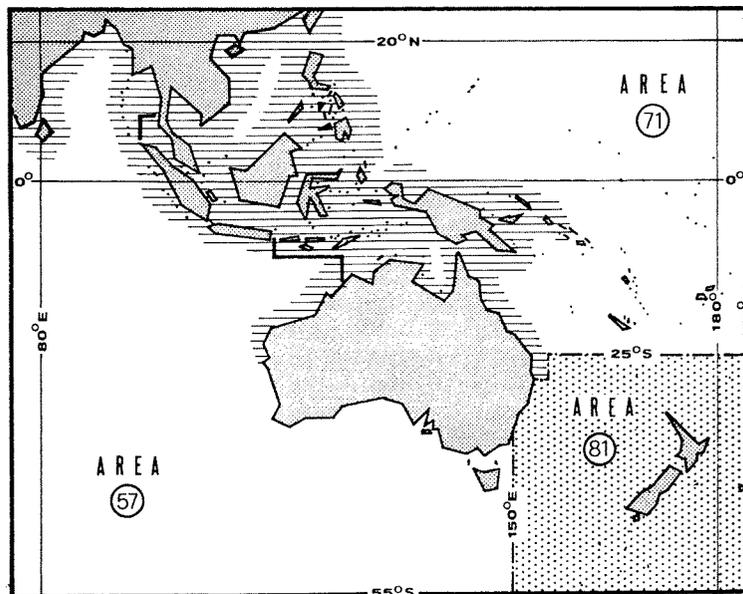
area 71 (Western Central Pacific): 200 tons (Australia only)

Caught mainly with bottom trawls, gillnets and stake traps; also fished for sport.

Marketed mostly fresh, whole.



Mylio
anal fin



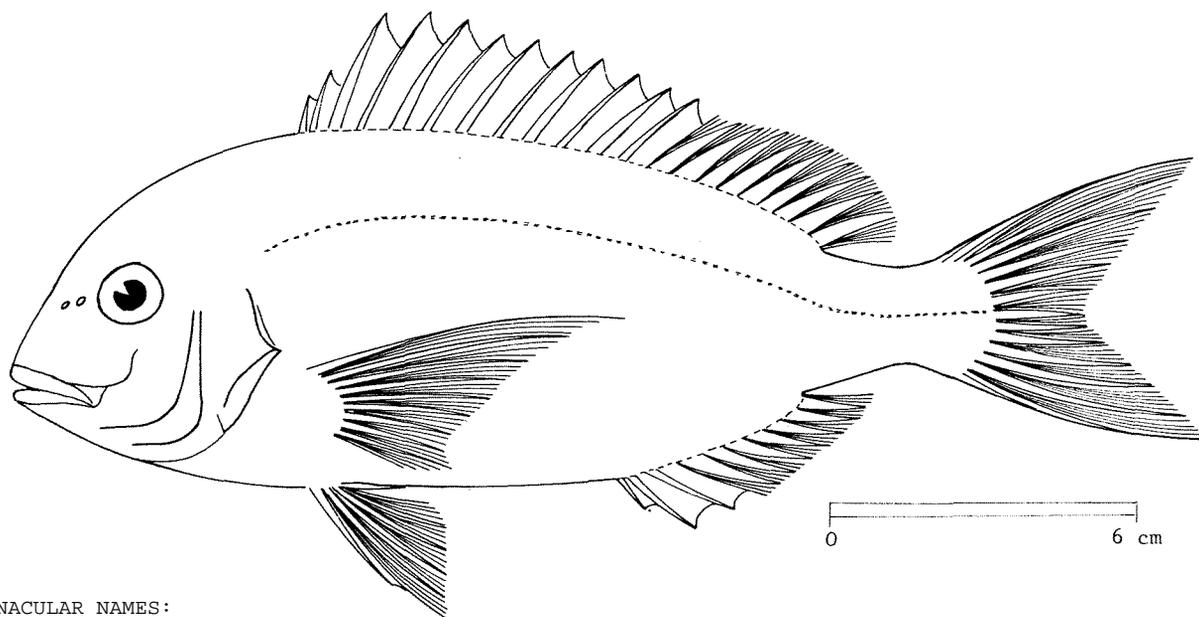
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SPARIDAE

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

Sparus major (Temminck & Schlegel, 1842)

SYNONYMS STILL IN USE: *Chrysophris major* Temminck & Schlegel, 1842
Pagrosomus major (Temminck & Schlegel, 1842)



VERNACULAR NAMES:

FAO: En - Silver seabream
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body robust, oblong, moderately compressed; upper profile of head convex with a bulge above eye in large specimens; eye moderate in size. Lower jaw slightly shorter than upper. Dorsal fin single, with 12 strong spines and 10 to 12 soft rays, the spines not elongated into filaments, 1st spine about 1/2 the length of 2nd, which is about 1/2 as long as 3rd, 3rd to 7th spines longest, other spines gradually decreasing in length along fin. Anal fin with 3 stout spines and 7 to 9 soft rays, 1st spine short, about 1/2 the length of 2nd; 2nd and 3rd spines about equal in length. Caudal fin forked with pointed lobes. Scales moderately large, absent from bases of soft dorsal and anal fins.

Colour: head and upper body red/brown, sides and belly silvery. Numerous small bright blue spots on upper sides. Fins red or faint red; caudal fin with a white lower margin.

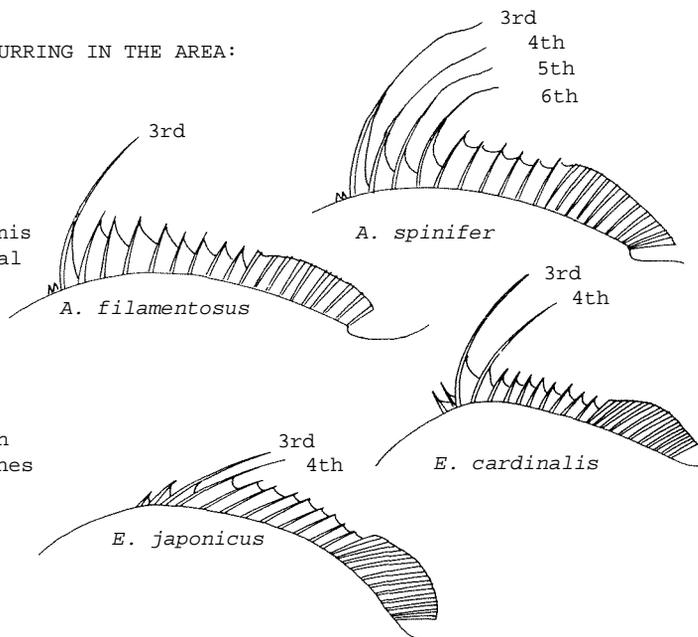
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Sparus auratus: difficult to separate on anatomical grounds. Occurs in Australia and New Zealand. Some authors include this species in *S. major*.

Argyrops spinifer, *A. filamentosus* and *Evynnis cardinalis*: at least some anterior spines of dorsal fin extended into long filaments.

Evynnis japonicus: 3rd to 4th dorsal fin spines much longer than other spines, though not filamentous.

Taius tumifrons: body mainly silvery, red on head and back; 3 golden yellow saddle-like blotches on back, and no blue spots on upper flanks.



SIZE:

Maximum: 70 cm; common: 20 to 40 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

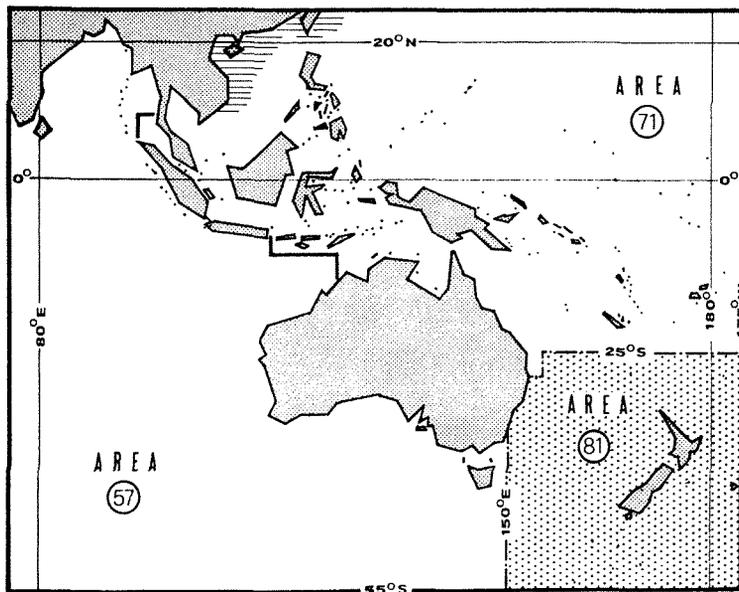
Northeastern part of South China Sea (excluding the Philippines); also, northward to Japan.

Bottom-living at depths of 10 to 150 m, often on rough grounds, but also on softer bottoms. Adult fish migrate into shallower parts of their depth range to spawn in late spring and summer; juvenile fish occur mainly in the shallower areas.

Feeds on a wide range of bottom-living invertebrates, including echinoderms, worms, molluscs and crustaceans; also on fishes.

PRESENT FISHING GROUNDS:

Throughout its range; often close to rough grounds. Probably over-fished in certain areas.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

Separate statistics are not reported for this species. The total reported catch of Sparidae in 1972 was:

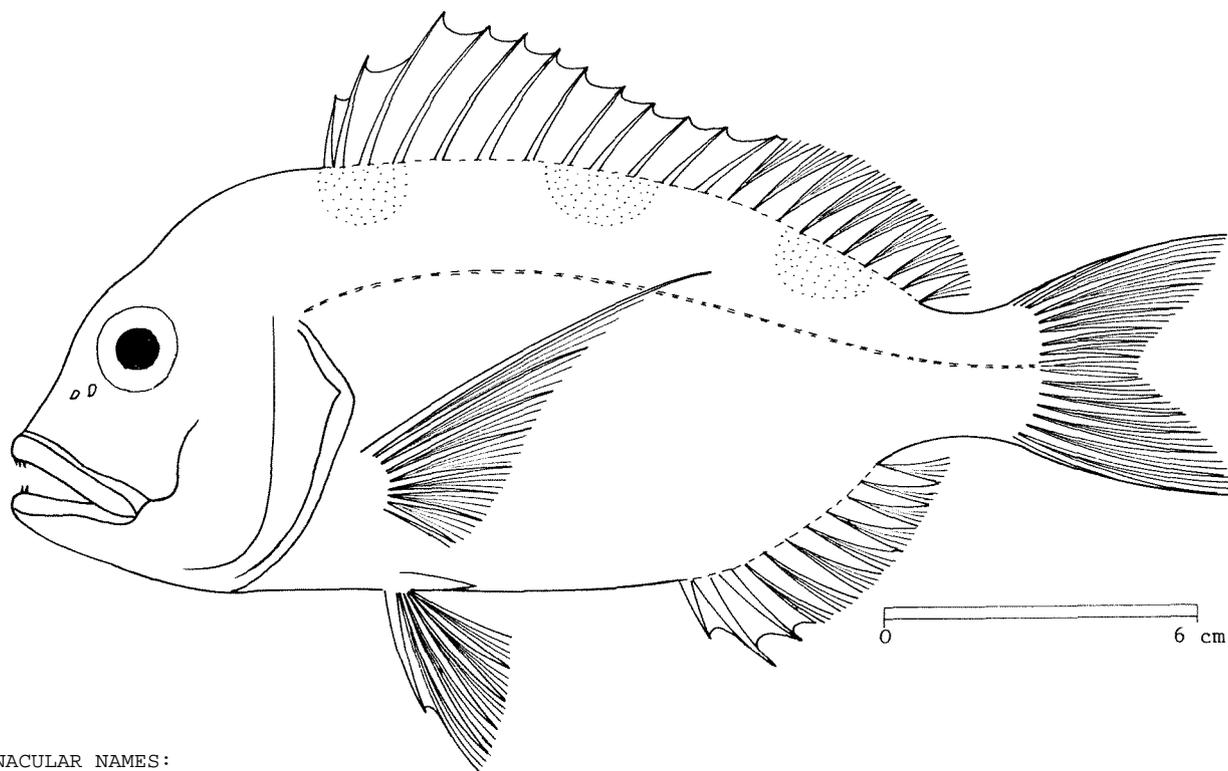
- area 57 (Eastern Indian Ocean): 1 500 tons (Australia only)
- area 71 (Western Central Pacific): 200 tons (Australia only)

Caught mainly with bottom trawls and bottom long lines.

A popular food fish throughout its range. It is particularly high priced in Japan where it is much sought for ceremonial banquets when it is eaten raw. It is also prepared into a wide range of food products.

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: SPARIDAE

FISHING AREAS 57,71
(E Ind. Ocean)
(W Cent. Pacific)*Taius tumifrons* (Temminck & Schlegel, 1842)SYNONYMS STILL IN USE: *Dentex tumifrons* (Temminck & Schlegel, 1842)

VERNACULAR NAMES:

FAO: En - Yellowback seabream
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

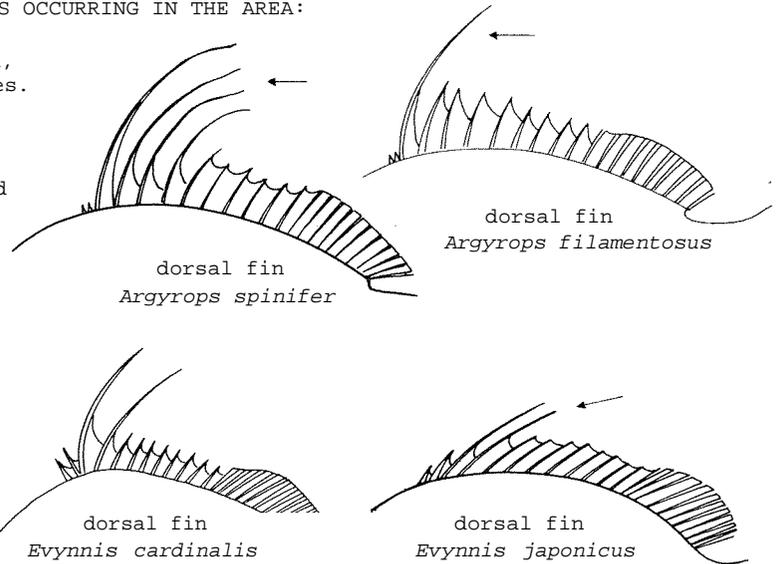
Body deep and compressed; head large, slightly deeper than long, its upper profile oblique, with prominent bulge near eye, especially in larger fish; eye moderate in size, close to front profile. Dorsal fin single, with 12 spines and 10 soft rays, none of the spines extended or filamentous; 3rd to 5th spines longest. Anal fin with 3 spines and 8 soft rays, 1st spine about 1/2 as long as 2nd which is equal to or slightly longer than 3rd. Caudal fin forked. Scales large; dorsal and anal fins with low scaly sheath.

Colour: back and upper sides orange/brown, lower sides and belly silvery; 3 golden/yellow saddle-like blotches on back, the 1st at origin of dorsal fin; dorsal, anal and caudal fins orange/red.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Sparus major: no yellow saddles on back, but small blue spots scattered on upper sides.

Argyrops spinifer, *A. filamentosus*, *Evynnis cardinalis* and *E. japonicus*: at least some anterior spines in dorsal fin elongated or filamentous.



SIZE:

Maximum: 40 cm; common: 15 to 25 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

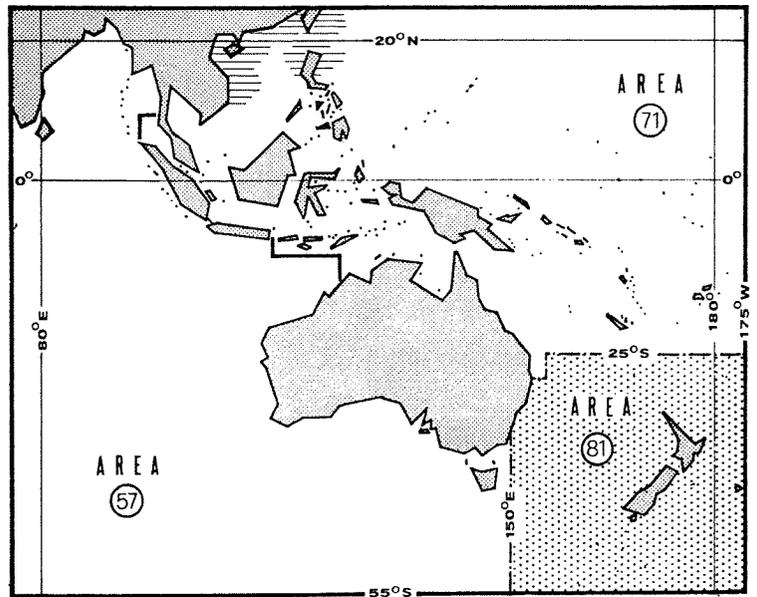
Northern part of South China Sea, including northern coasts of the Philippines; also, northward to Japan.

Lives on mud and muddy-sand bottoms, from depths of 50 to 250 m. Spawns in late spring.

Feeds on a wide range of bottom-living invertebrates and on fish.

PRESENT FISHING GROUNDS:

Deeper waters of the continental shelf; in northern part of South China Sea most abundant southeast of Hainan.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

Separate statistics are not reported for this species. The total reported catch of Sparidae in 1972 was:

area 57 (Eastern Indian Ocean): 1 500 tons (Australia only)
area 71 (Western Central Pacific): 200 tons (Australia only)

Caught mainly with bottom trawls and bottom longlines.

Marketed mostly fresh, whole; also dried-salted.