

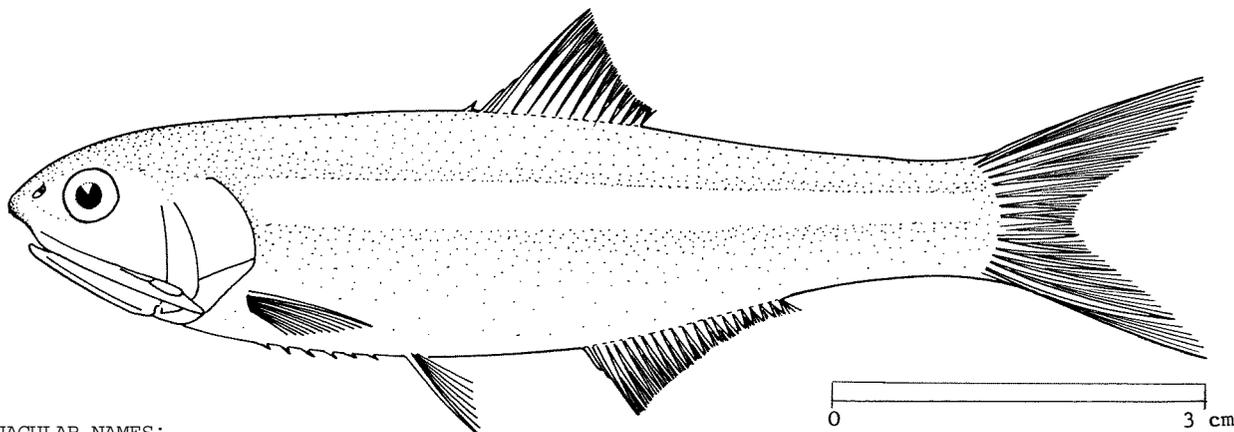
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: ENGRAULIDAE

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

Stolephorus tri (Bleeker, 1852)

SYNONYMS STILL IN USE: *Anchoviella tri*: Fowler, 1941
Stolephorus baganensis baganensis Hardenberg, 1933



VERNACULAR NAMES:

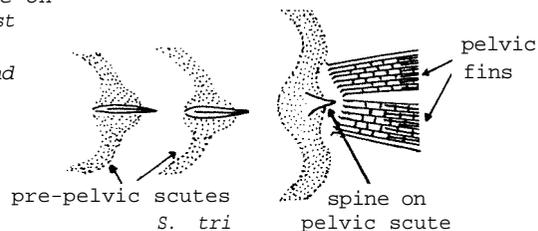
FAO: En - Spined anchovy
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

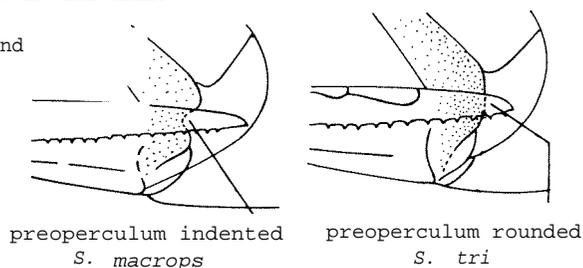
Body fusiform, somewhat compressed; belly with 5 to 7 needle-like scutes between pectoral and pelvic fin bases, and a spine on pelvic scute between fin bases; a small spine also present just before dorsal fin; snout projecting, bluntly pointed; maxilla tip pointed, reaching to gill opening; isthmus reaching to hind border of gill membrane. Anal fin origin below dorsal base; lower gill rakers 23 to 27.

Colour: pale cream when scales lost; bright silver stripe along flanks.



DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Stolephorus macrops: no spine on pelvic scute; hind border of pre-operculum indented near maxilla tip (evenly rounded in *S. tri*).



Other *Stolephorus* species: no spine before dorsal fin and small spine on pelvic scute; also, isthmus not reaching to hind border of gill membrane in *S. heterolobus*, *S. buccaneers*.

Engraulis: maxilla tip blunt and no scutes along belly.

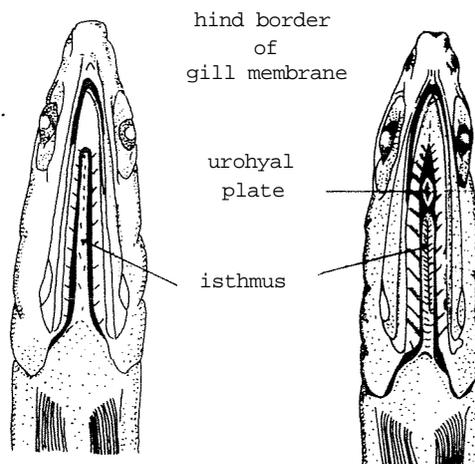
Thrissina: scutes also present behind pelvic fins (but not immediately in front of pectoral fins).

Thryssa: scutes present along entire belly, from isthmus to anal fin origin.

Lycothrissa: canine teeth present in jaws.

SIZE:

Maximum: 12 cm; common: 9 to 10 cm.



head viewed from below
S. tri *S. buccaneers*

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

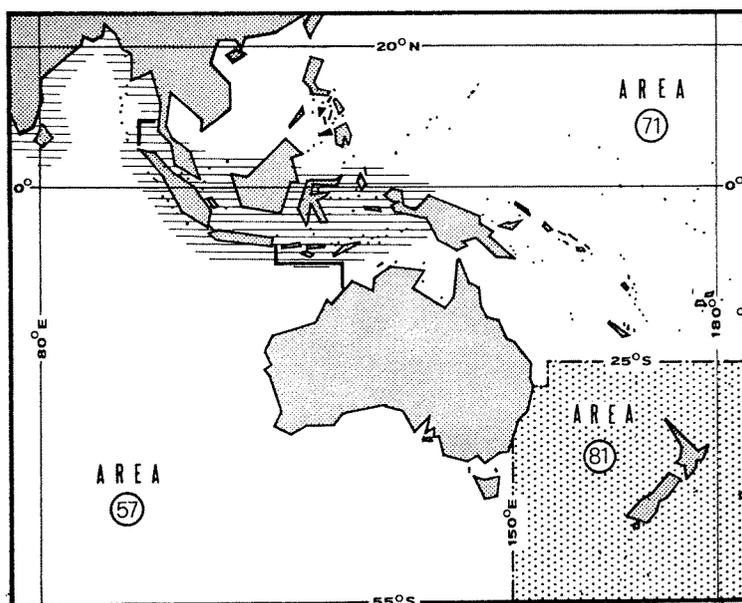
Throughout most of area, but not reported from South China Sea or Australia.

A coastal pelagic species.

Feeds on plankton organisms, especially zooplankton.

PRESENT FISHING GROUNDS:

Throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

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

area 57 (Eastern Indian Ocean): 12 800 tons (Australia: 100 tons; India: 12 700 tons)
area 71 (Western Central Pacific): 33 500 tons (Malaysia: 200 tons; Philippines: 33 300 tons)

Caught with purse seines, lift nets or bamboo-stake trape, often using light; also incidentally with bottom trawls.

Marketed fresh, dried, dried-salted or made into fish meal, fish sauce or fish balls.

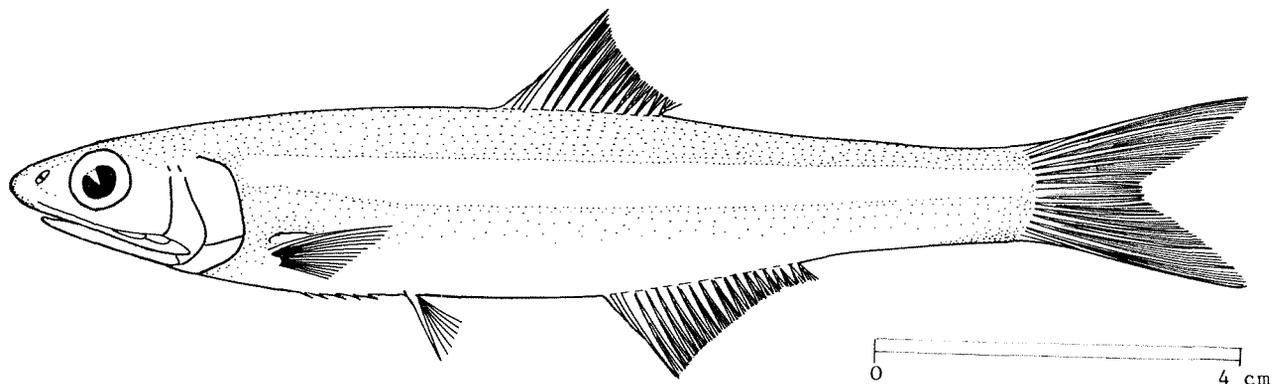
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: ENGRAULIDAE

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

Stolephorus indicus (van Hasselt, 1823)

SYNONYMS STILL IN USE: *Anchoviella indica*: Fowler, 1941



VERNACULAR NAMES:

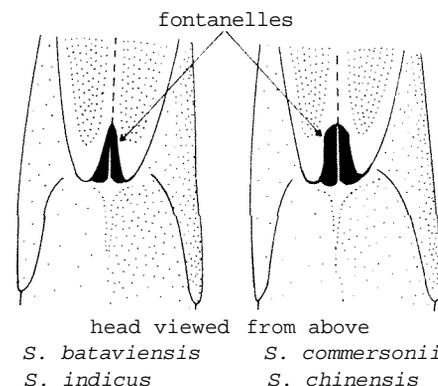
FAO: En - Indian anchovy
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body fusiform, nearly cylindrical; belly rounded, with 4 to 5 needle-like scutes between pectoral and pelvic fin bases. Snout prominent, rather pointed; maxilla tip pointed, projecting beyond anterior border of pre-operculum; posterior border of pre-operculum evenly rounded near maxilla tip; isthmus reaching to hind border of gill membrane. Posterior frontal fontanelles narrow, with straight borders. Anal fin origin below dorsal fin base. Lower gill rakers 21 to 27.

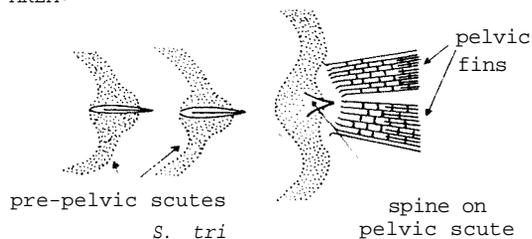
Colour: pale cream when scales lost; bright silver stripe along flanks.



DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Stolephorus commersonii, *S. chinensis*, *S. bataviensis*: maxilla longer, reaching beyond posterior border of pre-operculum; also, posterior frontal fontanelles broad and with sigmoid outer margins (but narrow and straight-sided in *S. bataviensis*).

Stolephorus tri: presence of a spine before dorsal fin and a spine on pelvic scute.



Stolephorus macrops, *S. andhraensis*, Species C of Ronquillo: hind border of preoperculum indented near maxilla tip.

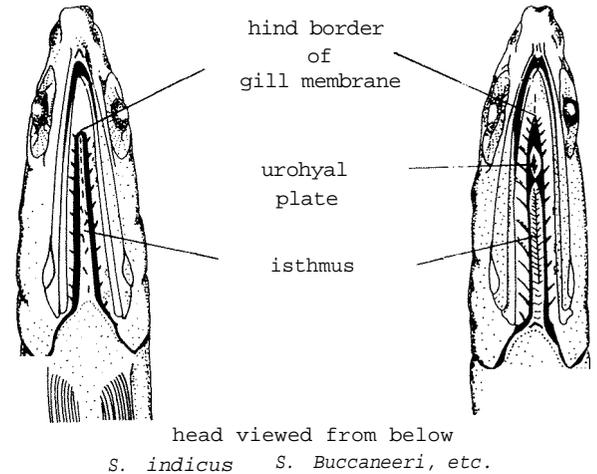
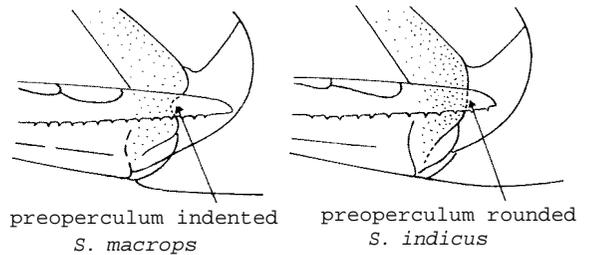
Other *Stolephorus* species: isthmus not reaching to hind border of gill membrane, leaving exposed a small (white or silver) diamond-shaped urohyal plate (easily visible without lens).

Engraulis: maxilla tip blunt and no scutes along belly.

Thryssa: scutes also present behind pelvic fins (but not immediately in front of pectoral fins).

Thryssa: scutes present along entire body, from isthmus to anal fin origin.

Lycotryssa: canine teeth present in jaws.



SIZE:

Maximum: 17 cm; common: 14 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

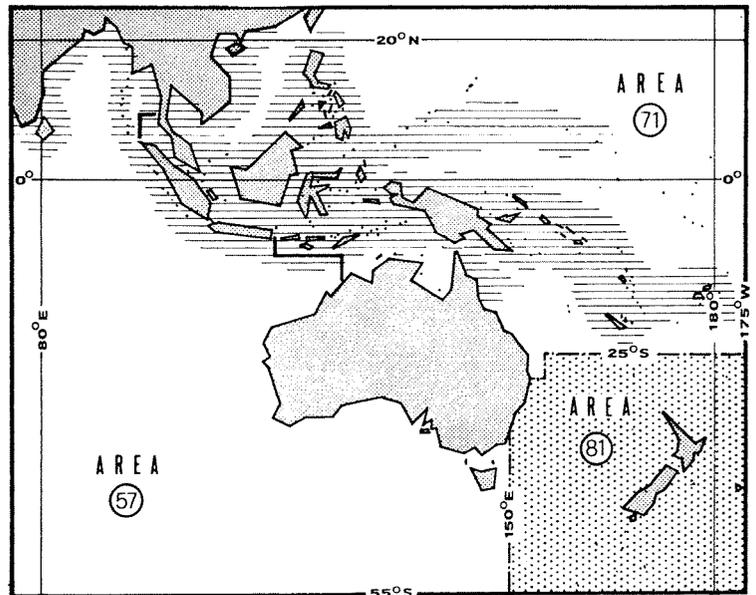
Throughout most of northern part of area, and southward to Queensland (Australia); also, westward to East Africa and eastward to Samoa.

A coastal pelagic species.

Feeds on plankton organisms.

PRESENT FISHING GROUNDS:

Throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

Separate statistics are not reported for this species. The total catch of Engraulidae in 1972

area 57 (Eastern Indian Ocean): 12 800 tons (Australia: 100 tons; India: 12 700 tons)
 area 71 (Western Central Pacific): 33 500 tons (Malaysia: 200 tons; Philippines: 33 300 tons)

Caught with purse seines, lift nets, traps and beach seines; also incidentally with bottom trawls

Marketed fresh, dried, dried-salted or made into fish meal, fish sauce or fish balls.

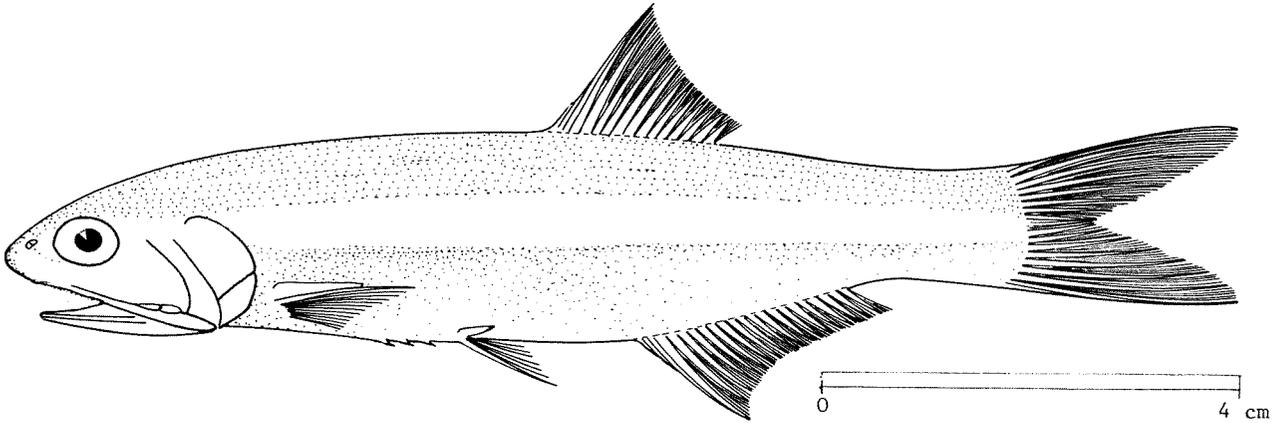
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: ENGRAULIDAE

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

Stolephorus commersonii Lacepède, 1803

SYNONYMS STILL IN USE: *Anchoviella commersonii*:Fowler, 1941



VERNACULAR NAMES:

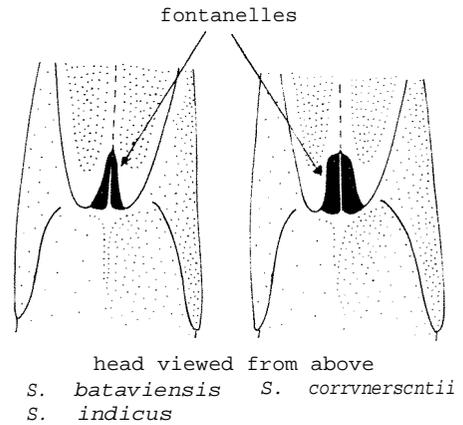
- FAO: En - Commerson's anchovy
- Fr -
- Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body fusiform, nearly cylindrical; belly rounded, with 3 to 4 (rarely 5) needle-like scutes between pectoral and pelvic fin bases. Snout prominent, rather pointed; maxilla long, its tip pointed and projecting to or beyond posterior border of pre-operculum; posterior border of pre-operculum evenly rounded near maxilla tip; isthmus reaching to hind border of gill membrane. Posterior frontal fontanelles broad, with sigmoid outer borders. Anal fin origin below dorsal fin base. Lower gill rakers more than 21.

Colour: pale cream when scales lost; bright silver stripe along flank.

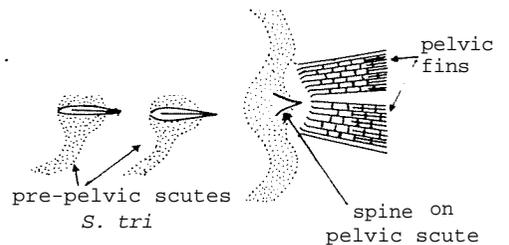


DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

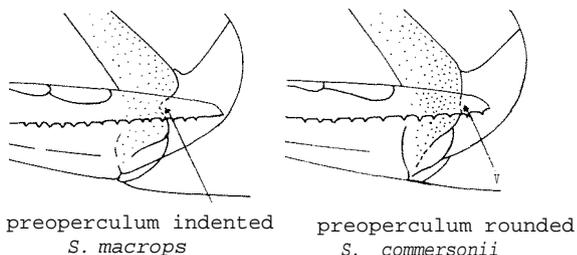
Stolephorus chinensis: 5 to 6 (usually 6) scutes between pectoral and pelvic fin bases (3 to 4, rarely 5 in *S. commersonii*).

Stolephorus bataviensis, *S. indicus*: narrow posterior frontal fontanelles with the outer borders straight; maxilla not reaching to posterior margin of pre-operculum in *S. indicus*.

Stolephorus tri: presence of a spine before dorsal fin and a spine on pelvic scute.



Stolephorus macrops, *S. andhraensis*, Species C of Ronquillo: hind border of preoperculum indented near maxilla tip.



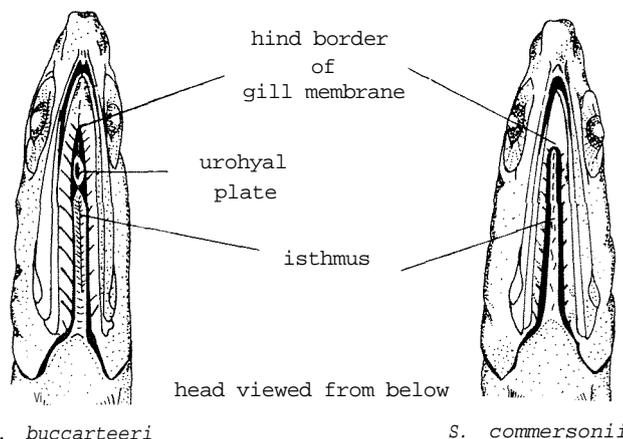
Other *Stolephorus* species: isthmus not reaching to hind border of gill membrane, leaving exposed a small (white or silver) diamond-shaped urohyal plate (easily visible without lens).

Engraulis: maxilla tip blunt and no scutes along belly.

Thrissina: scutes also present behind pelvic fins (but not immediately in front of pectoral fins).

Thryssa: scutes present along entire body, from isthmus to anal fin origin.

Lycothrissa: canine teeth present in jaws.



SIZE:

Maximum: 15 cm; common: about 12 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

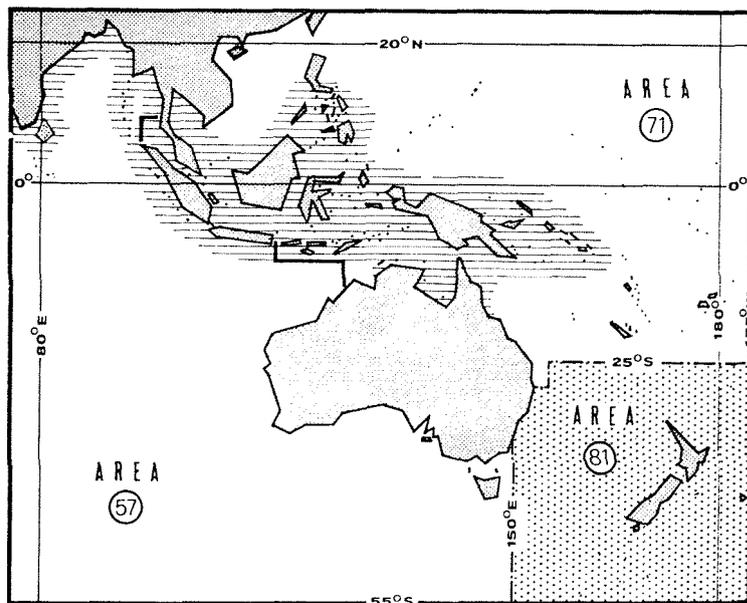
Throughout most of northern part of area, but not to Hong Kong; southward possibly to Queensland (Australia); also, westward to East Africa.

A coastal pelagic species.

Feeds on plankton organisms.

PRESENT FISHING GROUNDS:

Throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

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

- area 57 (Eastern Indian Ocean): 12 800 tons (Australia: 100 tons; India: 12 700 tons)
- area 71 (Western Central Pacific): 33 500 tons (Malaysia: 200 tons; Philippines: 33 300 tons)

Caught by purse seines, beach seines, bamboo-stake traps, often using light; also incidentally with bottom trawls.

Marketed fresh, dried, dried-salted or made into fish meal, fish sauce or fish balls.

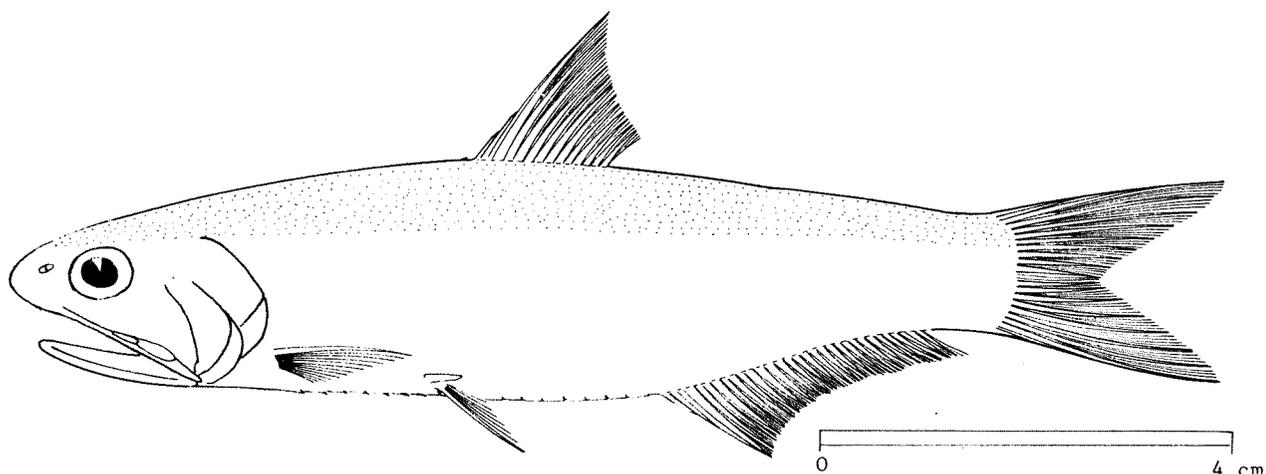
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: ENGRAULIDAE

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

Thrissina baelana (Forsskål, 1775)

SYNONYMS STILL IN USE: *Engraulis baelana*: Weber & de Beaufort, 1913
Thrissocles baelama: Fowler, 1941



VERNACULAR NAMES:

FAO: En - Baelama anchovy
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

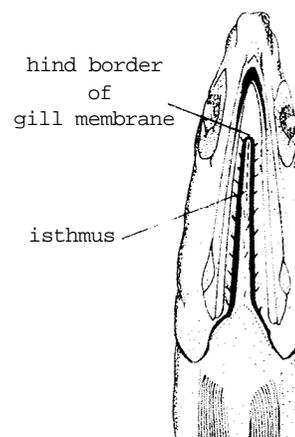
Body fusiform, a little compressed; belly rounded, with 5 to 7 barely keeled scutes between pectoral and pelvic fin base and 8 to 10 slightly sharper scutes behind pelvic fin base; occasionally, a single plate-like scute at isthmus; a small blunt spine before dorsal fin origin. Snout prominent, a little pointed; maxilla tip pointed and projecting just beyond articulation of lower jaw; isthmus reaching to hind border of gill membrane. Anal fin origin a little behind last dorsal fin ray; 27 to 33 anal fin rays
Lower gill raisers 20 to 23.

Colour: back dark. blue or brown, flanks silvery; no silver lateral stripe.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Stolephorus: no scutes behind pelvic fin base.

Thryssa: keeled scutes along entire belly from isthmus to anal fin origin.



T. baelama
head viewed
from below

Enngraulia: no abdominal scutes.

Lycothrissa: canine teeth present in jaws.

SIZE:

Maximum: 15 cm; common: 10 to 12 cm

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

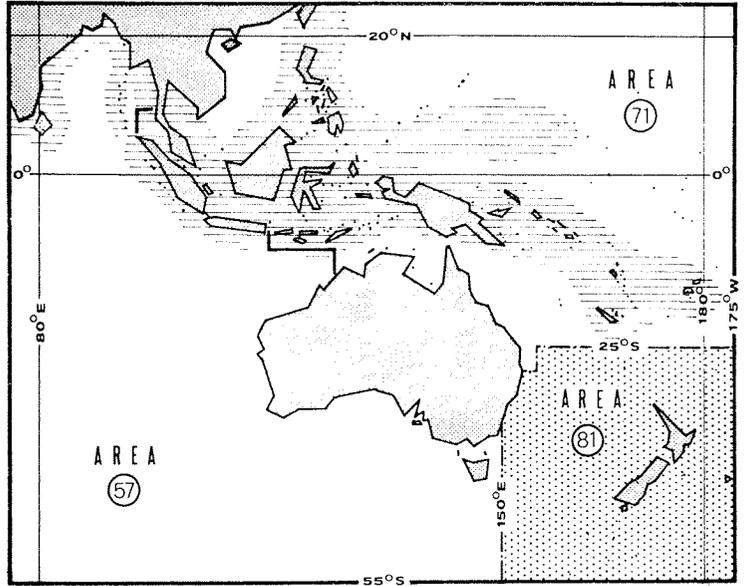
Throughout most of area, northward to Amoy, but not recorded from Australian coasts; also, westward to East Africa.

A coastal pelagic species.

Feeds on plankton organisms.

PRESENT FISHING GROUNDS:

Throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

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

area 57 (Eastern Indian Ocean): 12 800 tons (Australia: 100 tons; India: 12 700 tons)
area 71 (Western Central Pacific): 33 500 tons (Malaysia: 200 tons; Philippines: 33 300 tons)

Caught with purse seines, beach seines, and bamboo-stake traps, often using light; also incidentally with bottom trawls.

Marketed fresh, dried, dried-salted or made into fish meal, fish sauce or fish balls.

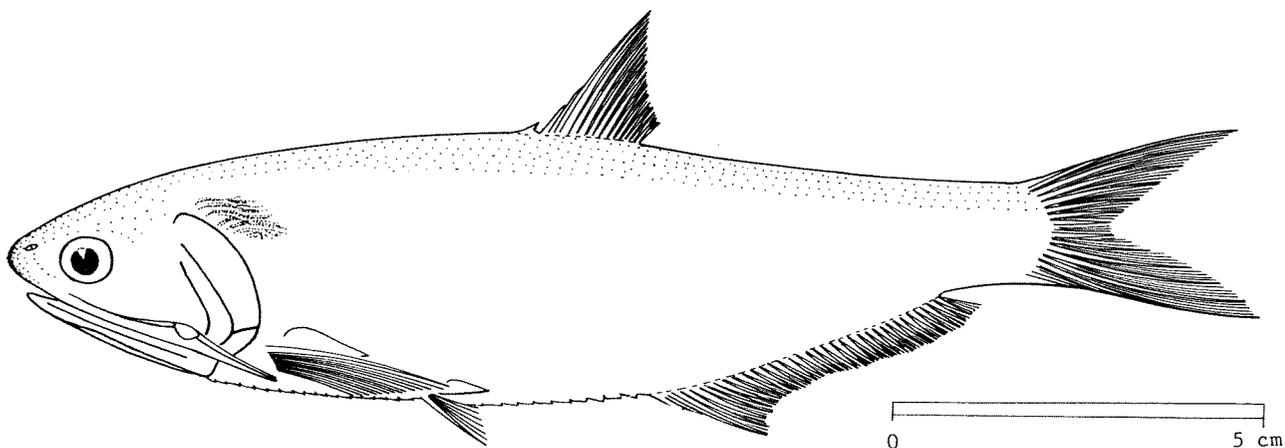
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: ENGRAULIDAE

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

Thryssa mystax (Schneider, 1801)

SYNONYMS STILL IN USE: *Engraulis mystax*: Weber & de Beaufort, 1913
Thrissocles mystax: Fowler, 1941



VERNACULAR NAMES:

FAO: En - Moustached thryssa
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

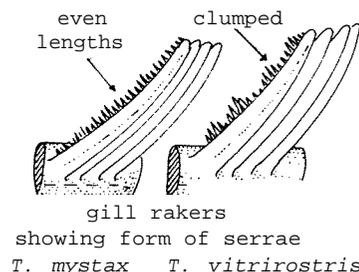
Body fusiform, fairly strongly compressed; belly keeled, with 16 to 19 scutes in front of pelvic fin base, and 9 to 11 scutes behind; a small, sharp spine before dorsal fin origin. Snout prominent, bluntly rounded; maxilla long, its tip pointed and reaching to or beyond base of first pectoral ray; mouth not strongly oblique; lower gill rakers 14 to 17, inner edges of rakers with small serrae not forming distinct clumps. Dorsal fin with 13 to 16 rays, anal fin with 35 to 41 rays.

Colour: back brown or blue, flanks silvery; dark venulose area at shoulder; gill cavity light orange in life.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Thryssa purava: mouth strongly oblique, 43 to 49 anal fin rays (35 to 41 in *T. mystax*) and 14 to 17 scutes before pelvic fins (16 to 19 in *T. mystax*).

Thryssa dussumieri, *T. vitrirostris*: serrae on the inner face of the gill rakers forming distinct clumps; maxilla reaching more than half way along pectoral fins in *T. dussumieri*.



Thryssa hamiltonii, *T. malabarica*, *T. kammalensis*: maxilla shorter, not reaching to pectoral fin base.

Thryssa setirostris: maxilla very long, reaching beyond tips of pelvic fins.

Thrissina: no scutes immediately before pectoral fin base.

Setipinna: 1st pectoral fin ray filamentous.

Lycothrissa: canine teeth present in jaws.

Papuengraulis: strongly keeled scutes present only before pectoral fin base.

SIZE:

Maximum: 20 cm; common: about 17 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

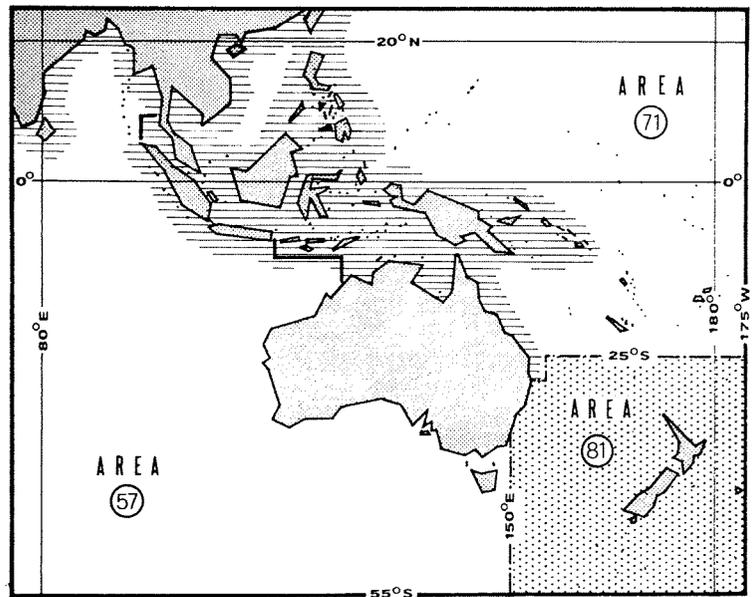
Throughout most of area, northward to Amoy, and southward to Queensland (Australia).

A coastal pelagic species.

Feeds on plankton organisms.

PRESENT FISHING GROUNDS:

Throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

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

area 57 (Eastern Indian Ocean): 12 800 tons (Australia: 100 tons; India: 12 700 tons)
area 71 (Western Central Pacific): 33 500 tons (Malaysia: 200 tons; Philippines: 33 300 tons)

Caught with beach seines, purse seines and bamboo-stake traps, often using light; also incidentally with bottom trawls.

Marketed fresh, dried, dried-salted or made into fish meal, fish sauce or fish balls.

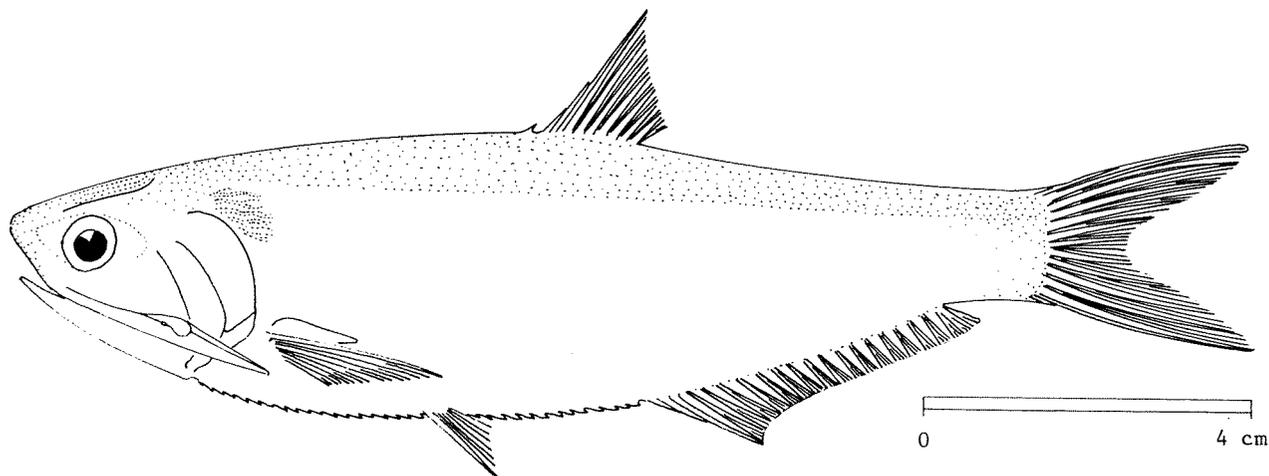
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: ENGRAULIDAE

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

Thryssa vitirostris (Gilchrist & Thompson, 1908)

SYNONYMS STILL IN USE: *Thrissocles vitirostris*: Fowler, 1941



VERNACULAR NAMES:

FAO: En - Orangemouth thryssa
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

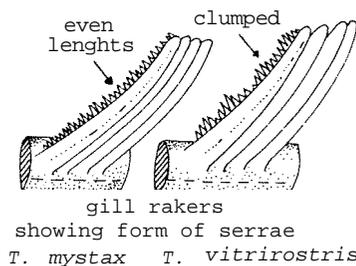
Body fusiform, fairly strongly compressed; belly keeled, with 16 to 19 scutes in front of pelvic fin base, and 9 to 12 scutes behind; a small, sharp spine before dorsal fin origin. Snout prominent, bluntly rounded; maxilla long, its tip pointed and reaching to base of 1st pectoral fin ray; mouth not strongly oblique; lower gill rakers 20 to 24, inner edges of rakers with small serrae forming distinct clumps.

Colour: back brown or blue, flanks silvery; dark venulose area at shoulder; gill cavity bright orange in life.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Thryssa dussumieri: maxilla longer, reaching 1/2 to 7/8 along pectoral fin.

Thryssa mystax, *T. purava*: only 14 to 19 gill rakers (20 to 24 in *T. vitirostris*); serrae not clumped along the inner edge of each raker.



T. mystax *T. vitirostris*

Thryssa hamiltonii, *T. malabarrica*, *T. kariunalensis*: maxilla shorter, not reaching to base of 1st pectoral fin ray.

Thryssa setirostris: maxilla very long, reaching beyond tips of pelvic fins.

Thrissina: no scutes immediately before pectoral fin base.

Setipinna: 1st pectoral fin ray filamentous.

Lycothrissa: canine teeth present in jaws.

Papuengraulis: scutes strongly keeled only before pectoral fin base.

SIZE:

Maximum: 21 cm; common: 14 to 15 c

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

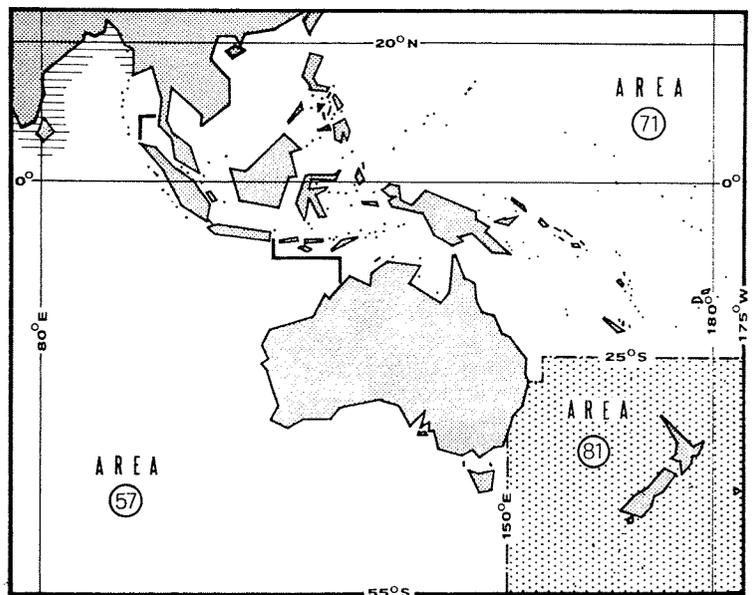
Coasts of India; also found westward to East African coasts.

A coastal pelagic species.

Feeds on plankton organisms.

PRESENT FISHING GROUNDS:

Throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

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

area 57 (Eastern Indian Ocean): 12 800 tons (Australia: 100 tons; India: 12 700 tons)
area 71 (Western Central Pacific): 33 500 tons (Malaysia: 200 tons; Philippines: 33 300 tons)

Caught mainly with purse seines, beach seines, bamboo-stake traps and lift nets.

Marketed fresh, dried, dried-salted or made into fish meal, fish sauce or fish balls.

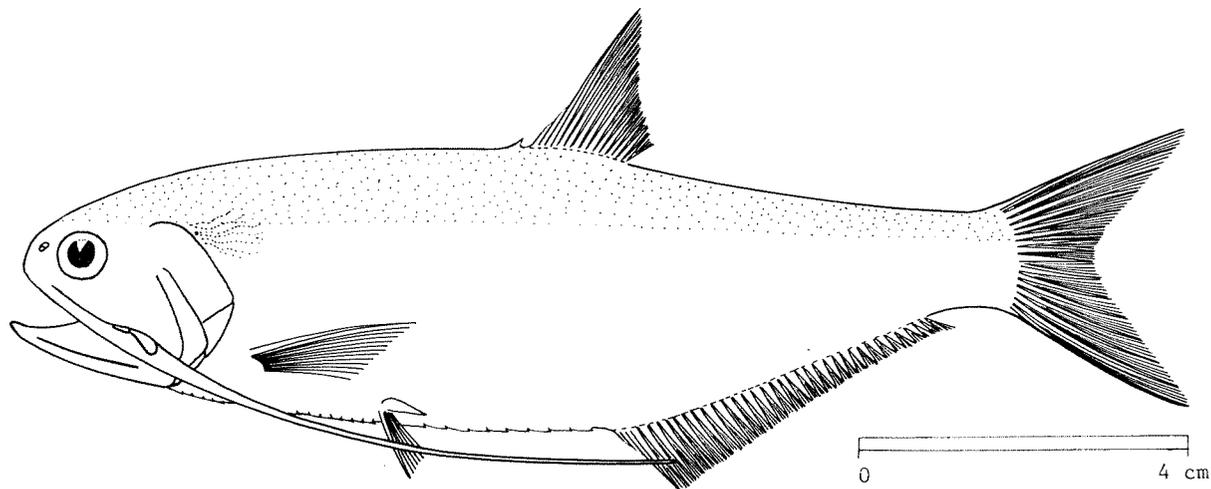
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: ENGRAULIDAE

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

Thryssa setirostris (Broussonet, 1782)

SYNONYMS STILL IN USE: *Thrissocles setirostris*: Fowler, 1941



VERNACULAR NAMES:

FAO: En - Longjaw thryssa
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS

Body fusiform, fairly strongly compressed; belly keeled, with 16 to 18 scutes in front of pelvic fin base, and 8 to 9 behind; a small, sharp spine before dorsal fin origin. Snout bluntly rounded; maxilla very long, reaching beyond tip of pectoral fin, often to anal fin origin; lower jaw not slender but rising steeply in mouth; lower gill rakers 11 to 12.

Colour: back brown or blue, flanks silvery; faint venulose area at shoulder.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Other *Thryssa* species, *Thrissina*, *Setipinna*, *Lycothrissa*, *Papuengraulis*: maxilla much shorter, at most not reaching beyond pectoral fin tip; lower jaw slender, not rising steeply in mouth. Also, *Setipinna* has a pectoral filament and *Lycothrissa* has canine teeth.

SIZE:

Maximum: 18 cm; common: 13 to 15 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

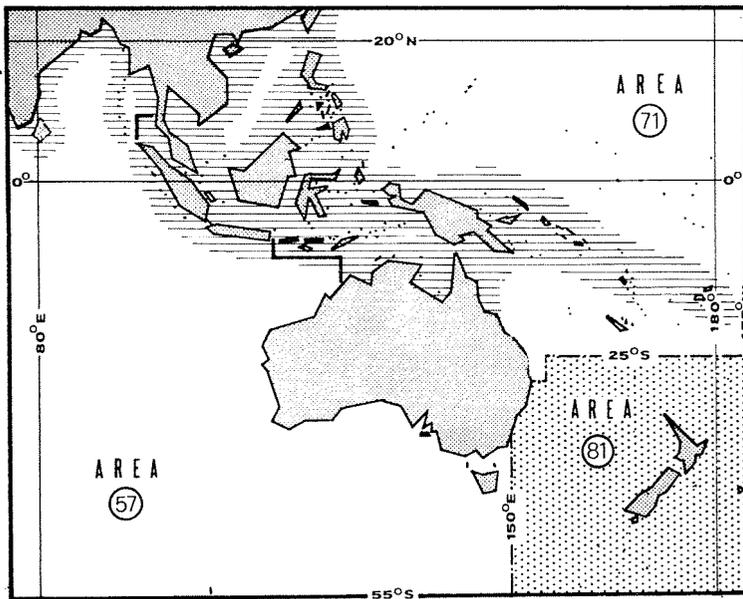
Throughout most of area, southward to North Queensland (Australia), northward to Amoy; also westward to East Africa.

A pelagic species.

Feeds on plankton organisms.

PRESENT FISHING GROUNDS:

Throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

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

area 57 (Eastern Indian Ocean): 12 800 tons (Australia: 100 tons; India: 12 700 tons)
area 71 (Western Central Pacific): 33 500 tons (Malaysia: 200 tons; Philippines: 33 300 tons)

Caught with purse seines, beach seines, lift nets and traps.

Marketed fresh, dried, dried-salted or made into fish meal, fish sauce or fish balls.

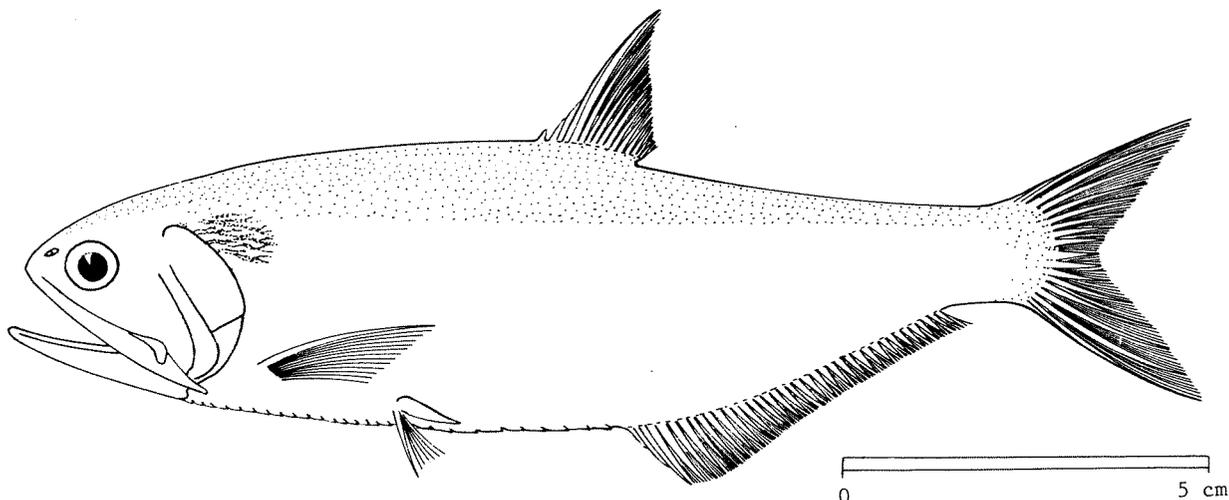
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: ENGRAULIDAE

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

Thryssa hamiltonii (Gray, 1835)

SYNONYMS STILL IN USE: *Thrissocles hamiltonii*: Fowler, 1941



VERNACULAR NAMES:

FAO: En - Hamilton's thryssa
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body fusiform, fairly strongly compressed; belly keeled, with 17 scutes in front of pelvic fin base and 10 to 11 scutes behind; a small, sharp spine before dorsal fin origin. Snout prominent, bluntly rounded; maxilla reaching only a little beyond gill opening, not to pectoral fin base; mouth not strongly oblique; lower gill rakers 12 to 14. Anal fin rays 38 to 43.

Colour: back brown or blue, flanks silvery; dark venulose area on shoulder.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Thryssa malabarica, *T. kammalensis*: 16 to 29 lower gill rakers (12 to 14 in *T. hamiltonii*).

Other *Thryssa* species: maxilla longer, reaching at least to base of 1st pectoral fin ray.

Thryssina: no scutes immediately before pectoral fin base.

Setipinna: 1st pectoral fin ray filamentous.

lycothrissa: canine teeth present in jaws.

Papuengraulis: strongly keeled scutes present only before pectoral fin base.

SIZE:

Maximum: 20 cm; common: about 17 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

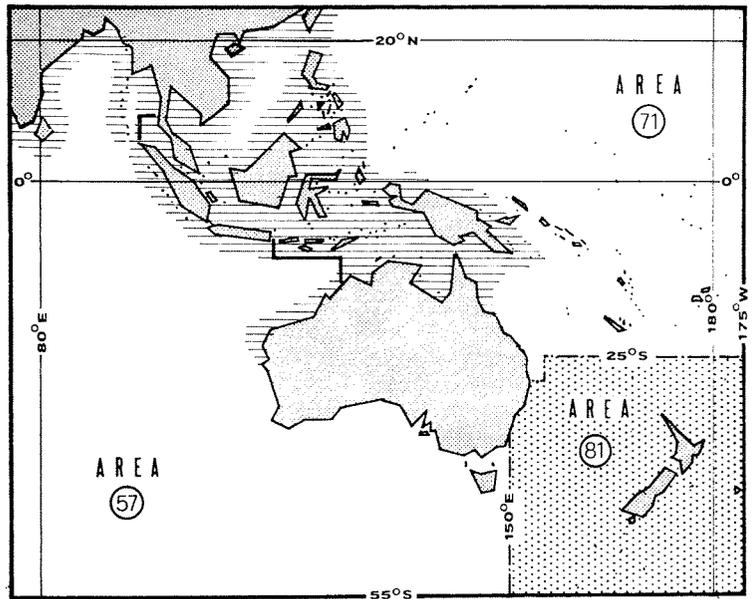
Throughout most of area, southward to North Queensland (Australia).

A pelagic species, occurring in large shoals.

Feeds on plankton organisms.

PRESENT FISHING GROUNDS:

Throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

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

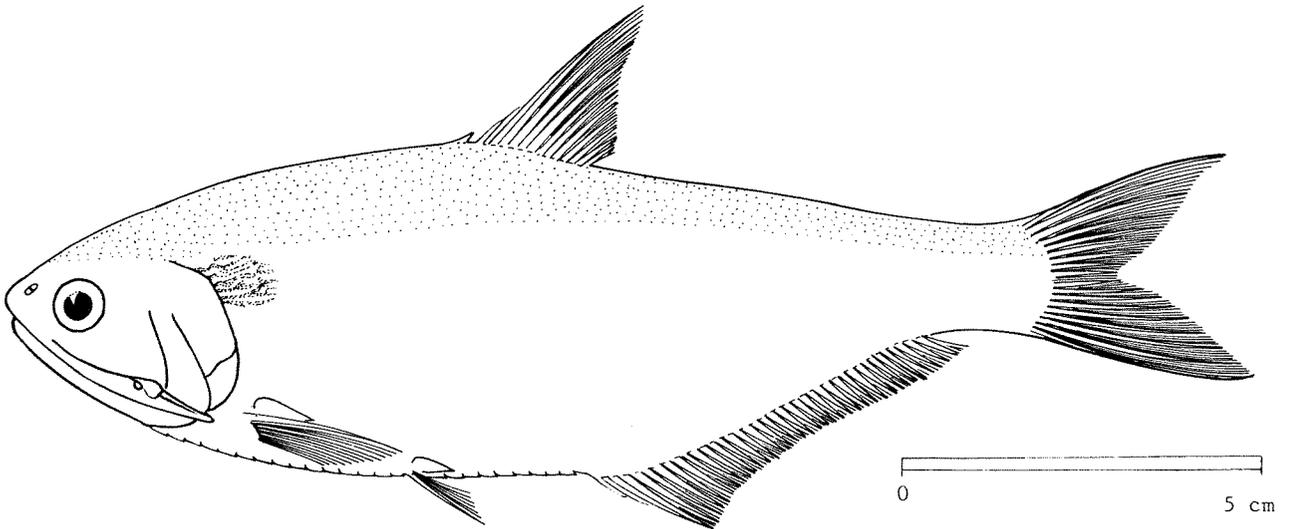
area 57 (Eastern Indian Ocean): 12 800 tons (Australia: 100 tons; India: 12 700 tons)
area 71 (Western Central Pacific): 33 500 tons (Malaysia: 200 tons; Philippines: 33 300 tons)

Caught with purse seines, beach seines and bamboo-stake traps.

Marketed fresh, dried, dried-salted or made into fish meal, fish sauce or fish balls.

FAO SPECIES IDENTIFICATION SHEETS

FAMILY: ENGRAULIDAE

FISHING AREAS 57,71
(E Ind. Ocean)
(W Cent. Pacific)*Thryssa malabarica* (Bloch, 1795)SYNONYMS STILL IN USE: *Thrissocles malabarica*: Fowler, 1941
Thrissocles scratchleyi: (Ramsey & Ogilby, 1886)

VERNACULAR NAMES:

FAO: En - Malabar thryssa
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body fusiform, fairly strongly compressed; belly keeled, with 15 to 17 scutes in front of pelvic fin base, and 9 to 10 scutes behind; a small, sharp spine before dorsal fin origin. Snout fairly prominent, bluntly pointed; maxilla reaching only a little beyond gill opening, not to pectoral fin base; mouth not strongly oblique; lower gill rakers 16 to 20. Anal fin rays 38 to 43.

Colour: back brown or blue, flanks silvery; dark venulose area on shoulder.

DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA:

Thryssa kammalensis: 27 to 29 lower gill rakers (16 to 20 in *T. malabarica*); only 34 rays in anal fin (38 to 43 in *T. malabarica*).

Thryssa hamiltonii: only 12 to 14 lower gill rakers (16 to 20 in *T. malabarica*).

Other *Thryssa* species: maxilla longer, reaching at least to base of 1st pectoral fin ray.

Thrissina: no scutes immediately before pectoral fin base.

Setipinna: 1st pectoral fin ray filamentous.

Lycothrissa: canine teeth present in jaws.

Papuengraulis: strongly keeled scutes present only before pectoral fin base.

SIZE:

Maximum: 35 cm (as *T. scratchleyi*),
20 cm (as *T. malabarica*);
common: about 17 cm.

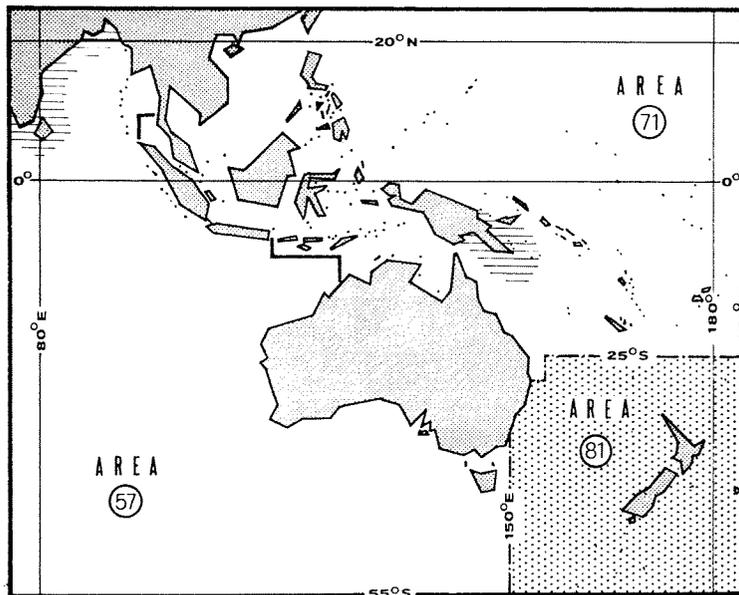
GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

Pakistan to Indian coasts, and (as *T. scratchleyi*) New Guinea.

Inhabits coastal waters and estuaries.

PRESENT FISHING GROUNDS:

Throughout its range.



CATCHES, MAIN FISHING GEAR AND PRINCIPAL FORMS OF UTILIZATION:

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

area 57 (Eastern Indian Ocean): 12 800 tons (Australia: 100 tons; India: 12 700 tons)
area 71 (Western Central Pacific): 33 500 tons (Malaysia: 200 tons; Philippines: 33 300 tons)

Caught with beach seines, bamboo-stake traps, and possibly with gill nets; also incidentally with bottom trawls.

Marketed fresh, dried, dried-salted or made into fish meal, fish sauce and fish balls.

FAO SPECIES IDENTIFICATION SHEETS

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

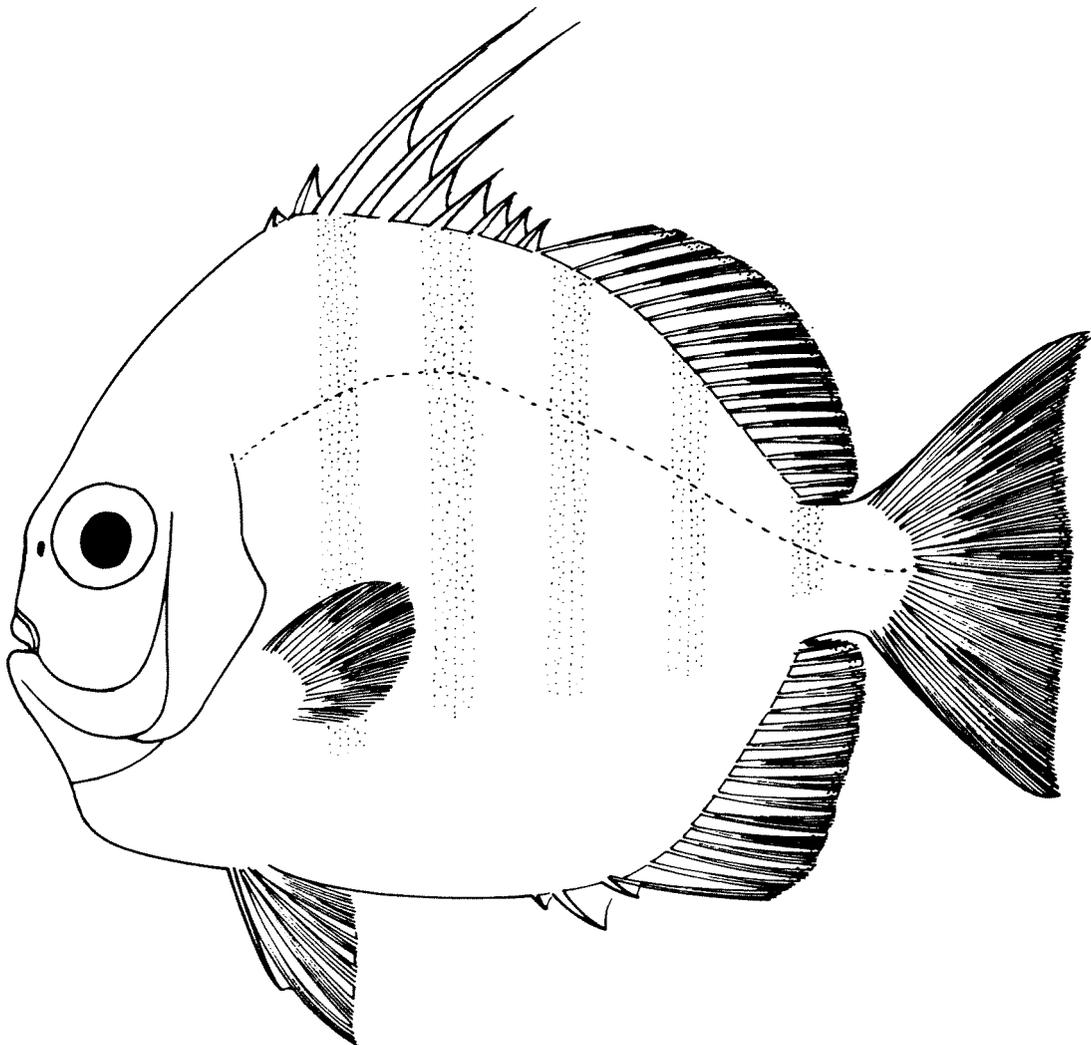
EPHIPPIDAE

Spadefishes

(Some authors place in this family the Drepanidae and Platacidae)

Body deep, almost circular, and strongly compressed; head fairly short with steep upper profile; scales dense but irregular on head, but absent on part of operculum and near mouth; mouth very small, terminal but not protractile; teeth small and setiform. Dorsal fin with 10 spines (the 1st forward pointing and visible only in the young), the spinous part separated from the soft part by a deep notch; pectoral fins small, rounded; pelvic fins present; anal fin with 3 spines; caudal fin somewhat emarginate. Scales of moderate size, smooth; lateral line angularly arched.

Colour: 4 to 5 vertical black bands on body from dorsal fins almost to belly; margins of soft dorsal, pelvic, anal and caudal fins dusky black.



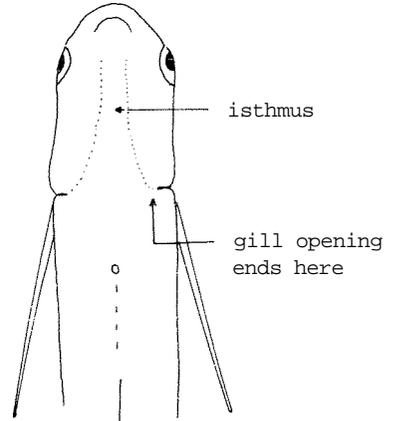
SIMILAR FAMILIES OCCURRING IN THE AREA:

Drepanidae: pectoral fins long and flaccid and mouth protractile, forming a downward-pointing tube; also, dorsal fin spines shorter.

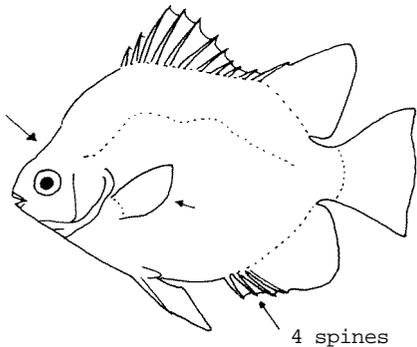
Platacidae: spines in dorsal fin increasing in length posteriorly and not separated from soft part of fin by a notch.

Stromateidae (deep-bodied species): no pelvic fins in adults and gill membranes broadly united to isthmus (gill openings mere lateral slits).

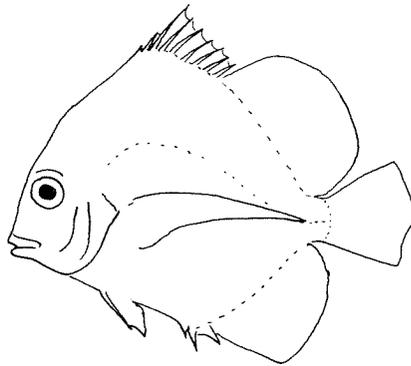
Scatophagidae: 4 anal fin spines and snout profile concave.



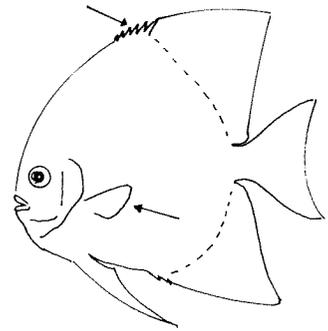
Stromateidae



Scatophagidae



Drepanidae



Platacidae

Key to Genera

Ephippus only

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

Ephippus orbis EPHIP Ehip 1

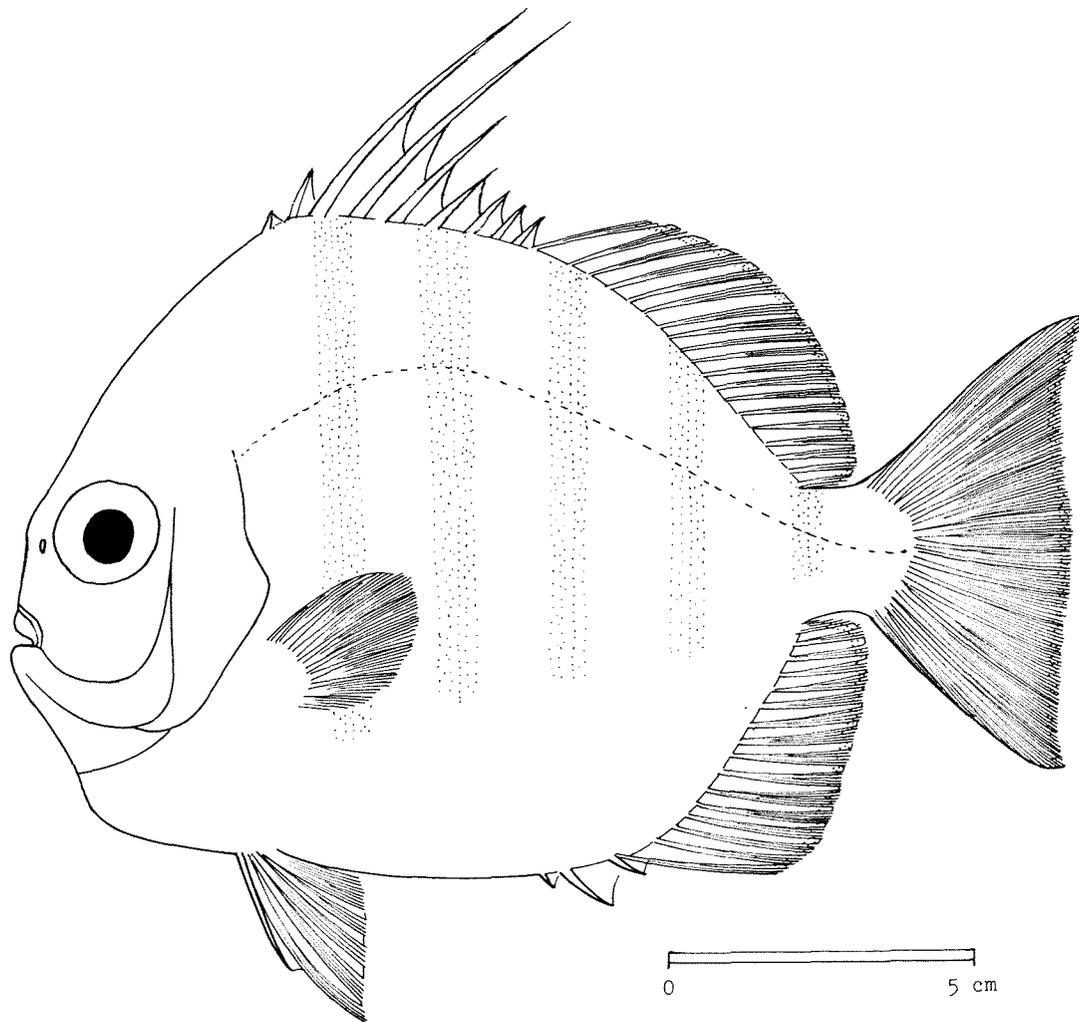
FAO SPECIES IDENTIFICATION SHEETS

FAMILY: EPHIPPIDAE

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

Ehippus orbis (Bloch, 1787)

SYNONYMS STILL IN USE: *Chaetodon orbis* Bloch, 1787



VERNACULAR NAMES:

FAO: En - Spadefish
Fr -
Sp -

NATIONAL:

DISTINCTIVE CHARACTERS:

Body deep, nearly circular, strongly compressed, not angular at dorsal and anal fin origins. Mouth small, terminal, not protactile; teeth in bands, setiform, none on palate. Operculum covered with scales almost to its ventral edge. First dorsal fin with 1 forward-pointing spine (visible only

in young specimens) and 9 normal spines and 19 to 20 soft rays, the 4th dorsal spine longest; pectoral fins short and rounded, anal fin with 3 spines and 15 to 16 soft rays.

Colour: 4 to 5 vertical black bands on body from dorsal fins almost to belly; margins of soft dorsal, pelvic, anal and caudal fins dusky black.

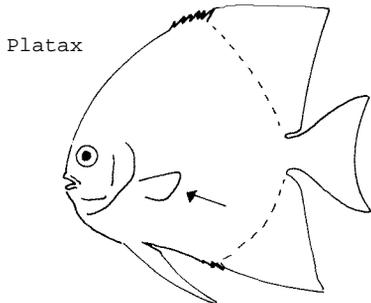
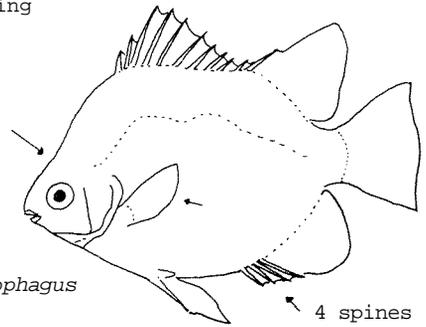
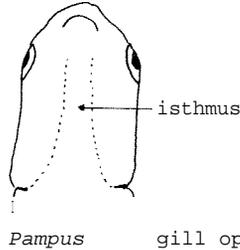
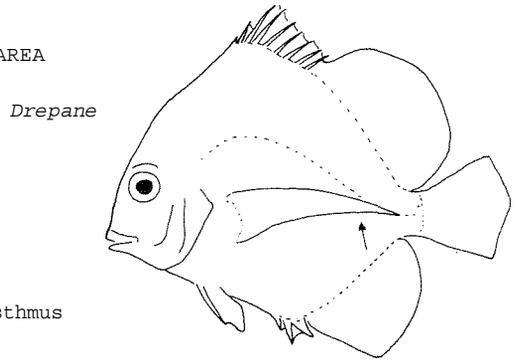
DISTINGUISHING CHARACTERS OF SIMILAR SPECIES OCCURRING IN THE AREA

Drepane species: pectoral fins long, falcate; mouth protractile, forming a downward-directed tube; also, dorsal fin spines shorter.

Platax species: spines of dorsal fin increasing in length posteriorly; no notch between spinous and soft parts of dorsal fin.

Pampus species: no pelvic fins in adults and gill membranes broadly united to isthmus (gill openings mere lateral slits).

Scatophagus species: 4 anal spines; also, head profile concave above snout.



SIZE:

Maximum: 25 cm; common: 15 cm.

GEOGRAPHICAL DISTRIBUTION AND BEHAVIOUR:

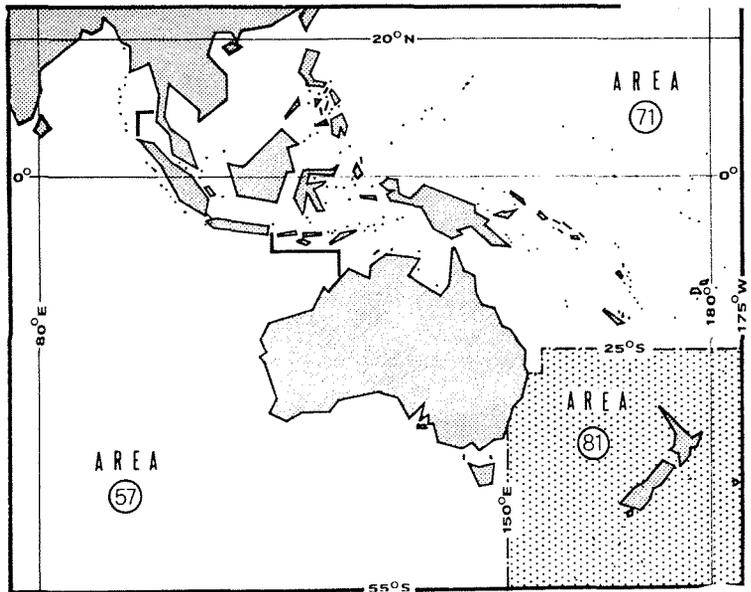
Throughout northern part of area and southward to tropical coasts of Australia; also, westward to East Africa.

Found in shallow water at depths of 10 to 30 m.

Feeds on bottom-living invertebrates and fishes.

PRESENT FISHING GROUNDS:

Throughout its range.



CATCHES, MAIN FISHING AND PRINCIPAL FORMS OF UTILIZATION:

Separate statistics are not reported for this species.

Caught mainly with bottom trawls and traps.

Marketed fresh and dried-salted.