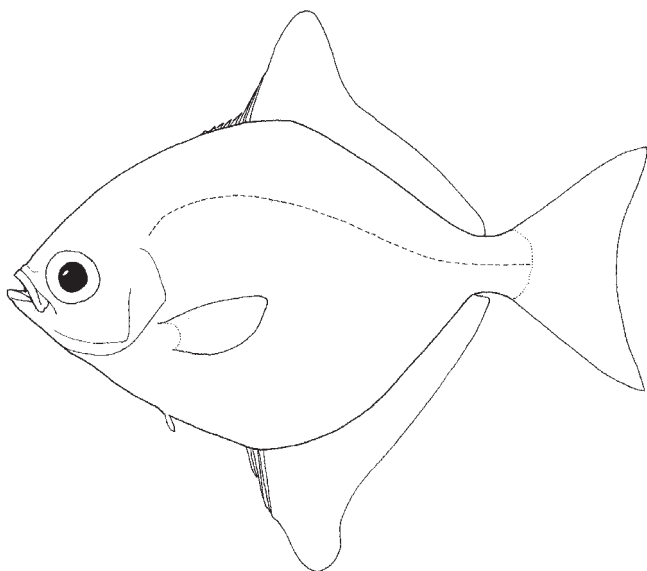


MONODACTYLIDAE

Moonfishes

by M. Kottelat

Diagnostic characters: **Body oval, deep, strongly compressed** (size to about 25 cm). Eye moderately large, its diameter longer than snout length. Mouth small and oblique. Jaws with bands of small conical teeth; vomer, palatines, and tongue with granular teeth. Gill membranes free from isthmus, separate. Branchiostegals 6. Dorsal fin with V to VIII spines and 26 to 31 soft rays; **anterior soft dorsal-fin rays elongated**, situated over midlength of body or somewhat in front, in a single species at least as long as 1/2 body depth. Anal fin with III spines and 26 to 31 soft rays; **anterior soft anal-fin rays elongated**, situated below midlength of body or somewhat in front, longer than elongated soft dorsal-fin rays. Caudal fin truncate to forked. Body, head, and unpaired fins covered by small, deciduous scales. **Colour:** body and head silvery, in most species with 1 or more black vertical bar through eye, in front of pectoral-fin base (usually continuous with black margin along anterior edge of anal fin) and on body; tip of dorsal and anal fins black in most species.

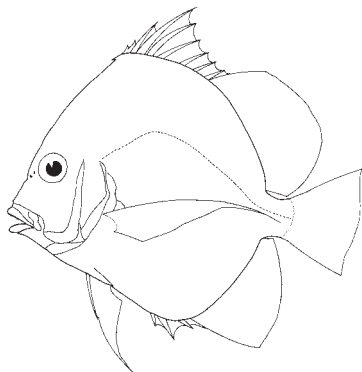


Habitat, biology, and fisheries: Occur in shoals in estuaries, lagoons, and over shallow coral reefs, in brackish and sea water, sometimes in fresh water. Minor commercial importance, occasionally sold fresh in local markets. Some are caught for the aquarium-fish trade.

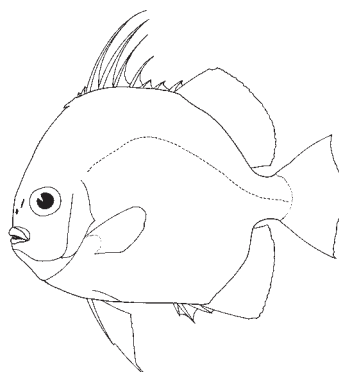
Remarks: Some authors place *Schuetta* in the Monodactylidae, but Tominaga (1968) considered it a separate family. A single species has classically been recognized in the area, *Monodactylus argenteus*. *M. kottelati* has recently been discovered in Sri Lanka and Laccadive Archipelago (India); this species appears to be much rarer. In Sri Lanka, both species occur in sympatry, with *M. kottelati* occupying deeper areas with higher tidal flow. More than 1 species apparently occur around Sumatra and one of them has been identified as *M. kottelati* on the basis of juveniles; this should be confirmed with examination of adult specimens.

Similar families occurring in the area

Drepanidae, Ehippidae: pelvic fins well developed; gill membrane attached to isthmus.

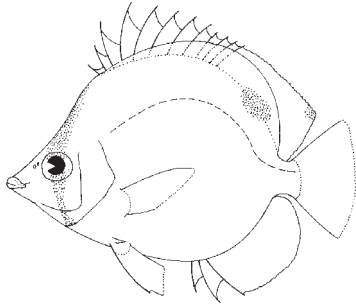


Drepanidae

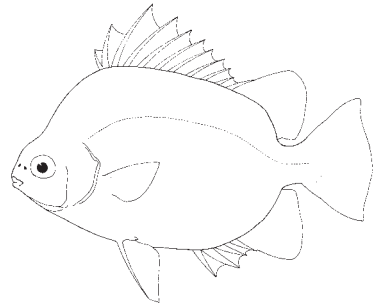


Ehippidae

Chaetodontidae, Scatophagidae: pelvic fins well developed; dorsal fin with X to XVII spines; spinous part of dorsal fin well separated from soft-rayed part.



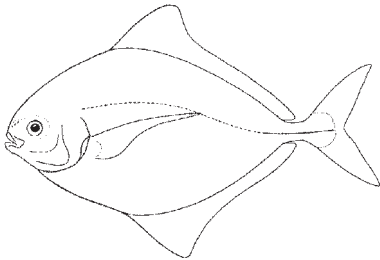
Chaetodontidae



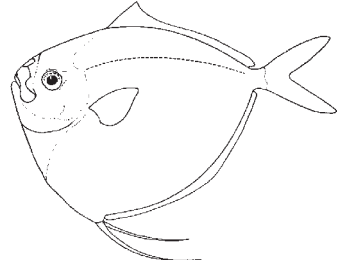
Scatophagidae

Carangidae: caudal fin forked; anal fin with II spines.

Menidae: ventral profile conspicuously more convex than dorsal profile; caudal fin forked; dorsal fin without spines in adults; first 2 pelvic-fin rays elongated.



Carangidae



Menidae

Key to the species of Monodactylidae occurring in the area

- 1a. Pelvic fins normally developed; caudal fin forked *Schuettea scalaripinnis*
- 1b. Pelvic fins rudimentary or absent in adults; caudal fin truncate to slightly emarginate → 2

- 2a. Body depth 1.2 to 1.6 times in standard length; distance between tips of dorsal and anal fins 0.8 to 0.9 times in standard length; caudal fin emarginate; posterior edge of dorsal and anal fins distinctly concave *Monodactylus argenteus*
- 2b. Body depth 1 to 1.1 times in standard length; distance between tips of dorsal and anal fins 0.6 to 0.7 times in standard length; caudal fin truncate to very slightly emarginate; posterior edge of dorsal and anal fins almost straight *Monodactylus kottelati*

List of species occurring in the area

The symbol is given when species accounts are include.

- Monodactylus argenteus* (Linnaeus, 1758)
- Monodactylus kottelati* Pethiyagoda, 1991
- Schuettea scalaripinnis* Steindachner, 1866

References

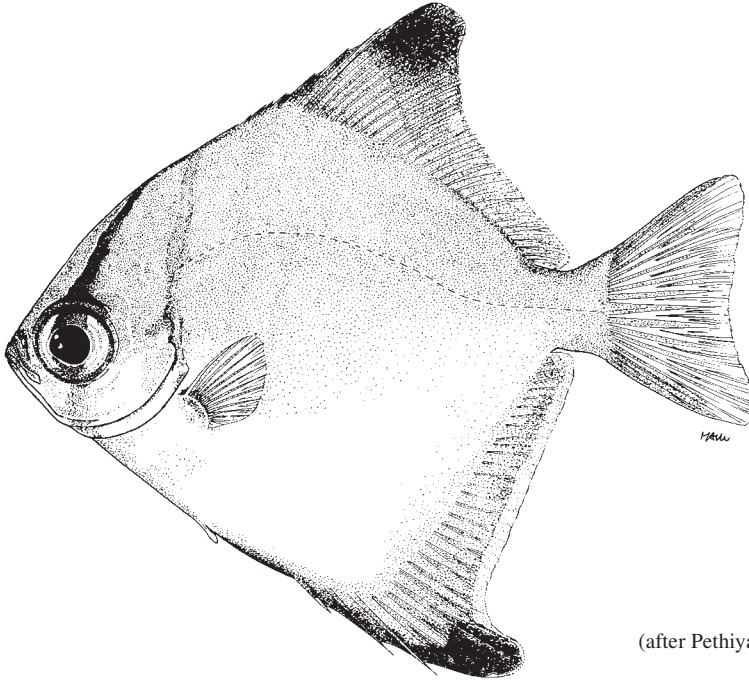
Pethiyagoda, R. 1991. *Monodactylus kottelati*, ein neues Flossenblatt aus Sri Lanka (Pisces: Monodactylidae). *Aquar. Terrar. Zeitschr.*, 44:162-167.

Tominaga, Y. 1968. Internal morphology, mutual relationships and systematic position of the fishes belonging to the family Pempheridae. *Japan. J. Ichthyol.*, 15:43-95.

Monodactylus argenteus (Linnaeus, 1758)

Frequent synonyms / misidentifications: None / None.

FAO names: En - Silver moony; Fr - Lune d'argent; Sp - Ramball plateado.



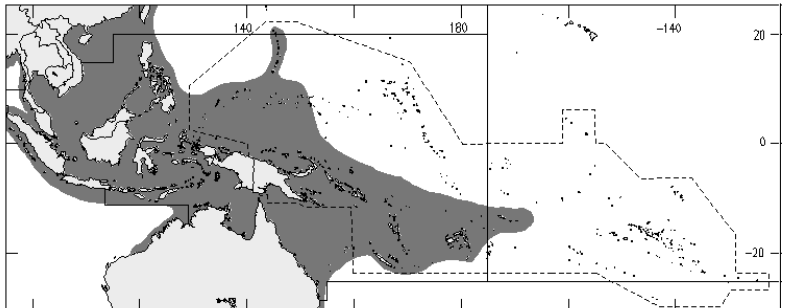
(after Pethiyagoda, 1991)

Diagnostic characters: Body oval, deep, strongly compressed. Body depth 1.2 to 1.6 times in standard length; distance between tips of dorsal and anal fins 0.8 to 0.9 times in standard length. Eye moderately large, its diameter longer than snout length. Mouth small and oblique. Jaws with bands of small conical teeth. Gill membranes free from isthmus, separate. Dorsal fin with VII or VIII spines and 26 to 31 soft rays; **anterior soft dorsal-fin rays elongated**, situated over midlength of body. Anal fin with III spines and 26 to 31 soft rays; **anterior soft anal-fin rays elongated**, situated below midlength of body, longer than elongated soft dorsal-fin rays. **Posterior edge of dorsal and anal fins distinctly concave. Caudal fin slightly emarginate. Pelvic fins rudimentary or absent in adults.** Body, head, and unpaired fins covered by small, deciduous scales. **Colour:** adults silvery, tip of dorsal and anal fins dusky; juveniles silvery, with a curved black vertical bar through eye and 1 in front of pectoral-fin base; tip of dorsal and anal fins black; anterior edge of anal fin with broad black margin.

Size: Maximum total length about 25 cm.

Habitat, biology, and fisheries: Inhabits estuaries and lagoons, usually in shallow water, often in schools, with a preference for around and under floating or sunken logs and branches. Juveniles occasionally enter rivers but are rarely recorded from fresh waters. Sold fresh in local markets. Juveniles are caught for the aquarium-fish trade.

Distribution: Widespread in the tropical Indo-West Pacific, from South Africa and Red Sea to Australia, Samoa, and southern Ryukyu Islands.



Monodactylus kottelati Pethiyagoda, 1991

Frequent synonyms / misidentifications: None / *Monodactylus argenteus* (Linnaeus, 1758).

FAO names: En - Angel mono; Fr - Monodactyle voile.

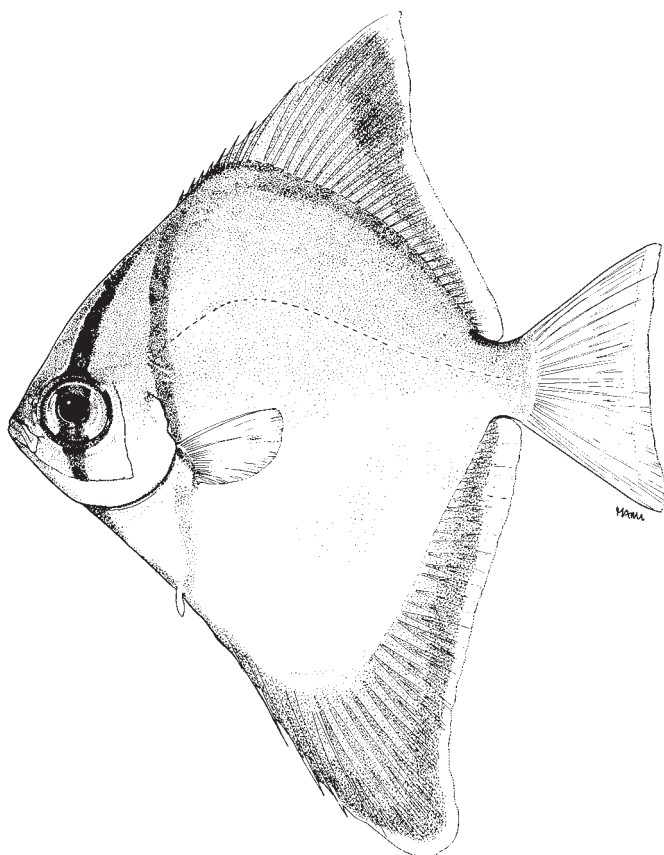
Diagnostic characters: Body oval, very deep, strongly compressed. Body depth 1 to 1.1 times in standard length; distance between tips of dorsal and anal fins 0.6 to 0.7 times in standard length.

Eye moderately large, its diameter longer than snout length. Mouth small and oblique. Jaws with bands of small conical teeth. Gill membranes free from isthmus, separate. Dorsal fin with VIII spines and 28 to 30 soft rays; **anterior soft dorsal-fin rays very elongated**, situated over midlength of body. Anal fin with III spines and 28 to 30 soft rays; **anterior soft anal-fin rays very elongated**, situated below midlength of body, longer than elongated soft dorsal-fin rays. **Posterior edge of dorsal and anal fins almost straight. Caudal fin truncate to very slightly emarginate. Pelvic fins rudimentary or absent in adults.** Body, head, and unpaired fins covered by small, deciduous scales. **Colour:** adults silvery, dorsal and anal fins dusky, blackish at the tip; juveniles silvery, with a curved black vertical bar through eye and one in front of pectoral-fin base; dorsal and anal fins blackish, denser black at the tip; anterior edge of anal fin with broad black margin.

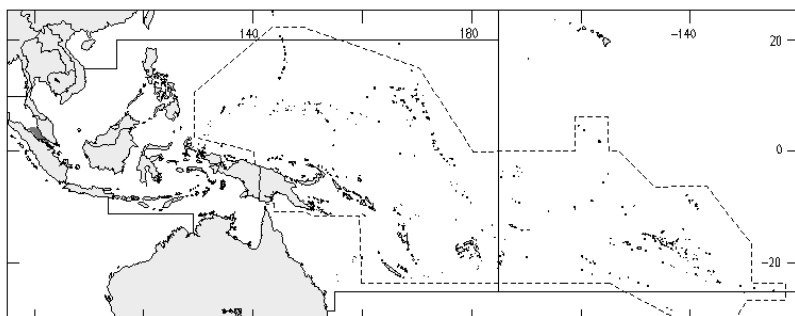
Size: Largest known specimen 10 cm total length, but probably reaches a larger size.

Habitat, biology, and fisheries: Inhabits estuaries and lagoons, usually in water deeper than 5 m, often in schools, often around sunken logs and branches; not known to tolerate fresh waters. Apparently unknown in local markets. Juveniles are caught for the aquarium-fish trade.

Distribution: Definitely known only from a single locality in Sri Lanka and the Laccadive Archipelago (India). Juveniles specimens from Medan (Sumatra) are tentatively referred to this species.



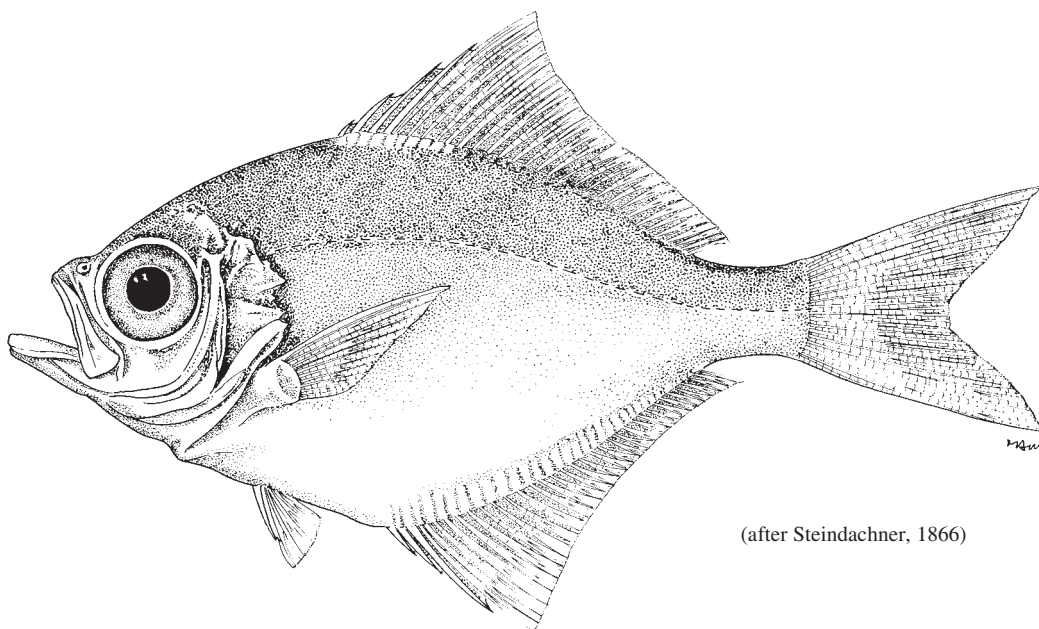
(after Pethiyagoda, 1991)



Schuettea scalaripinnis Steindachner, 1866

Frequent synonyms / misidentifications: None / None.

FAO names: En - Eastern pomfred.



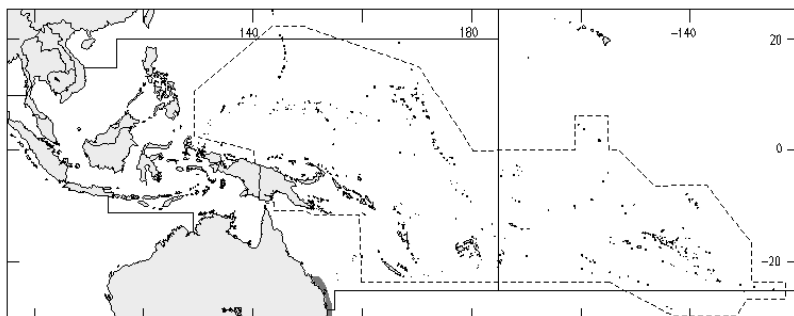
(after Steindachner, 1866)

Diagnostic characters: Body oval, moderately deep, strongly compressed. Body depth about 2 times in standard length. Eye moderately large, its diameter longer than snout length. Mouth small and oblique. Jaws with bands of small conical teeth. Gill membranes free from isthmus, separate. Dorsal fin with V spines and 28 to 30 soft rays; **anterior soft dorsal-fin rays elongated**, situated in front of midlength of body. Anal fin with III spines and 28 to 30 soft rays; **anterior soft anal-fin rays elongated**, situated in front of midlength of body. **Caudal fin forked**. **Pelvic fins normally developed**, with I spine and 5 soft rays. Body, head, and unpaired fins covered by small, ctenoid scales. **Colour:** adults silvery, yellow along back; juveniles silver; fins yellow.

Size: Maximum total length about 20 cm.

Habitat, biology, and fisheries: Inhabits large estuaries close to the sea and coastal bays. Schooling.

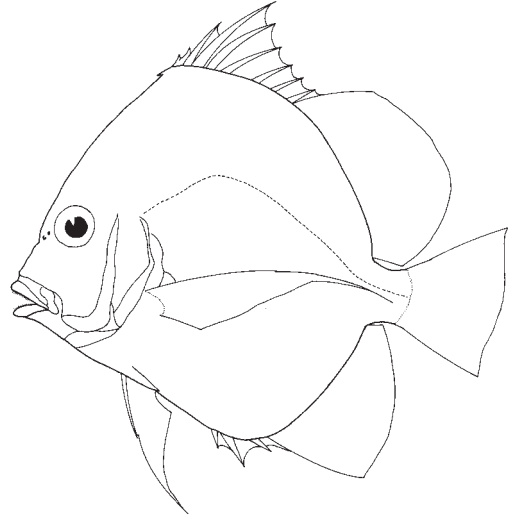
Distribution: Along the coasts of New South Wales and southern Queensland, Australia.



DREPANIDAE**Sicklefishes**

by P.C. Heemstra

Diagnostic characters: Body oval and strongly compressed (size to about 50 cm). Interorbital, preorbital, and broad preopercular flange naked; opercle scaly dorsally; ventral edge of preopercle serrate in juveniles. **Mouth highly protrusible, forming a downward-pointing tube when protruded;** jaws with bands of setiform teeth; no teeth on roof of mouth; maxilla exposed posteriorly, no supramaxilla. Branchiostegal membranes joined to isthmus; branchiostegal rays 6. **A single dorsal fin, with VIII to X spines (third or fourth spines longest) and 19 to 22 soft rays; anal fin with III spines and 16 to 19 soft rays;** caudal fin rounded or bluntly wedge-shaped (almost truncate in large adults); **pectoral fins elongate, falciform, reaching caudal peduncle,** with 16 to 18 rays; pelvic fins with I spine, 5 soft rays, and a fleshy axillary process; first pelvic-fin ray elongate. Scales small, finely ctenoid, extending onto top of head and base of median fins; lateral line complete, strongly curved over pectoral fins; lateral-line scales 48 to 55. Vertebrae 10+14. Swimbladder large. Pyloric caeca 2



or 3. Large adults with a bump or bony knob on interorbital region, a result of hyperostosis of the frontal bones. **Colour:** head and body silvery; sides of body with vertical rows of dark spots or lines.

Habitat, biology, and fisheries: Frequents a variety of habitats (sand or mud bottoms and coral reefs) in shallow water, including estuaries and harbours. Feeds on benthic invertebrates (mainly crustaceans and worms). Mostly caught with trawls.

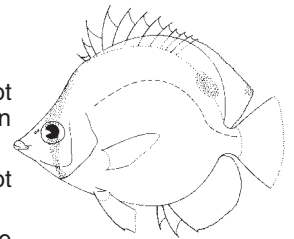
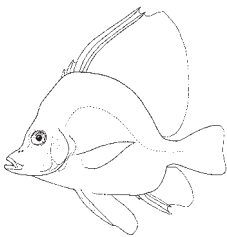
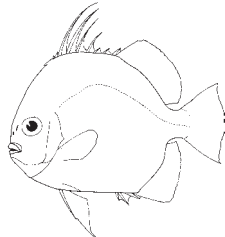
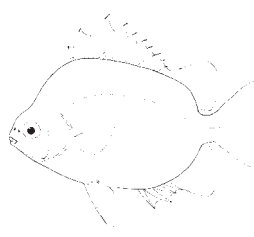
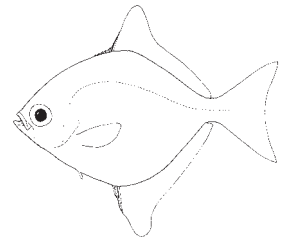
Remarks: Three species are known for this family; 2 species occur in the area.


Similar families occurring in the area

Chaetodontidae and Pentacerotidae: mouth not highly protrusible; pectoral fins not much longer than head and well short of caudal peduncle; no notch between spinous and soft-rayed parts of dorsal fin.


Ehippidae and Scatophagidae: mouth not highly protrusible; pectoral fins not reaching past anal-fin base.

Monodactylidae: mouth not highly protrusible; pectoral fins shorter than head; eye centred on horizontal axis through mouth.

**Chaetodontidae****Pentacerotidae****Ehippidae****Scatophagidae****Monodactylidae****List of species occurring in the area**

The symbol  is given when species accounts are included.

 *Drepane longimana* (Bloch and Schneider, 1801)

 *Drepane punctata* (Linnaeus, 1758)

Reference

Lloris, D. and J. Rucabado. 1987. Revisión sistematica y distribución de la familia Drepanidae (Pisces, Osteichthyes). *Misc. Zool.*, 11:277-288.

Drepane longimana (Bloch and Schneider, 1801)

Frequent synonyms / misidentifications: None / *Drepane punctata* (non Linnaeus, 1758).

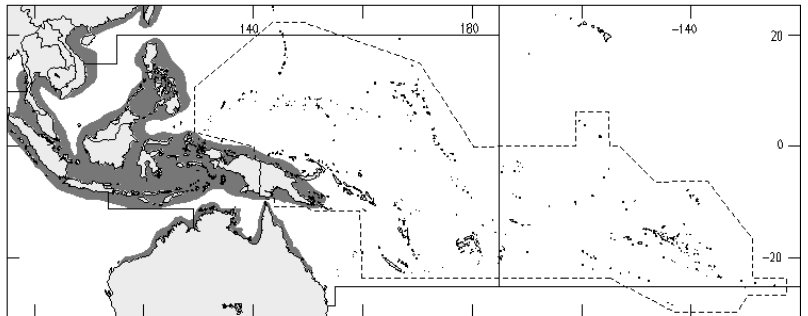
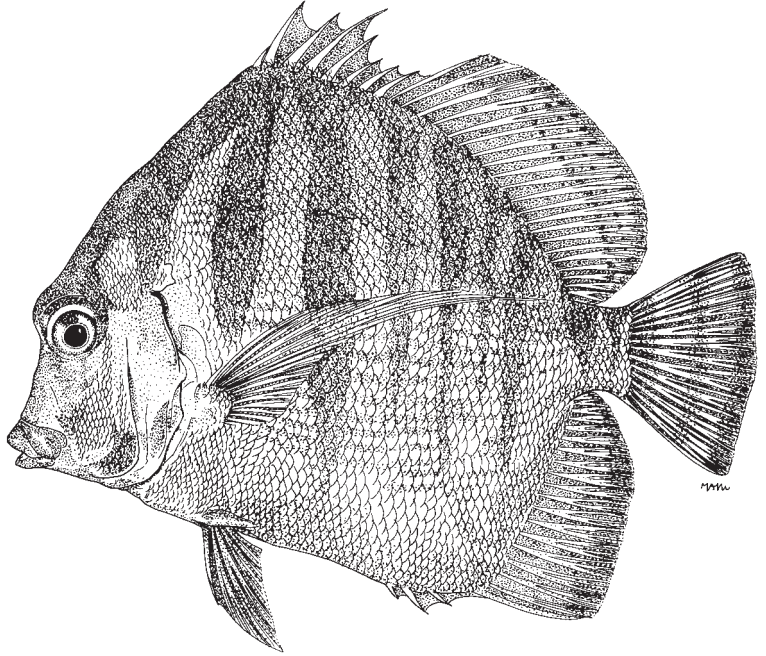
FAO names: En - Sicklefish.

Diagnostic characters: **Body oval and strongly compressed**, its depth 1.2 to 1.3 times in standard length and 2 to 3 times in head length. Snout profile straight or concave; pre-orbital deep, the eye well above horizontal line through upper jaw symphysis. Interorbital, preorbital and broad preopercular flange naked; opercle scaly dorsally; ventral edge of preopercle serrate in juveniles; a fringe of cirri just behind chin. **Mouth highly protrusible, forming a downward-pointing tube when protruded**; jaws with bands of setiform teeth; no teeth on roof of mouth; maxilla exposed posteriorly, no supramaxilla. First gill arch with 6 to 8 gill rakers on upper limb, 10 to 12 on lower limb. **A single dorsal fin, with VIII or IX (usually VIII) spines (fourth spine longest) and 19 to 23 soft rays; anal fin with III spines and 17 to 19 soft rays**; caudal fin rounded or bluntly wedge-shaped (almost truncate in large adults); **pectoral fins elongate, falciform, reaching caudal peduncle**, with 16 to 18 rays. Lateral-line scales 46 to 55. Large adults with a bump or bony knob on interorbital region, a result of hyperostosis of the frontal bones. **Colour:** head and body silvery; **4 to 10 subvertical dark bars usually visible on dorsal part of body from head to caudal-fin base** (bars faint or absent in some specimens); median fins dusky, darker distally; 2 or 3 longitudinal rows of small dark spots (one on each interradiar membrane) on soft dorsal fin; some specimens with front part of head (interorbital, snout, cheeks, and lower jaw) dark, and lips white.

Size: Maximum total length about 50 cm.

Habitat, biology, and fisheries: Occurs in a variety of inshore habitats, such as sand or mud bottoms, reefs, estuaries, and harbours. Biology little known. Mostly caught with trawls, occasionally with hook-and-line.

Distribution: Temperate and tropical waters of the Indo-West Pacific region from South Africa to Red Sea, Oman, Arabian Sea, India to northern Australia, New Guinea, Indonesia, Philippines, Taiwan Province of China, and Japan.



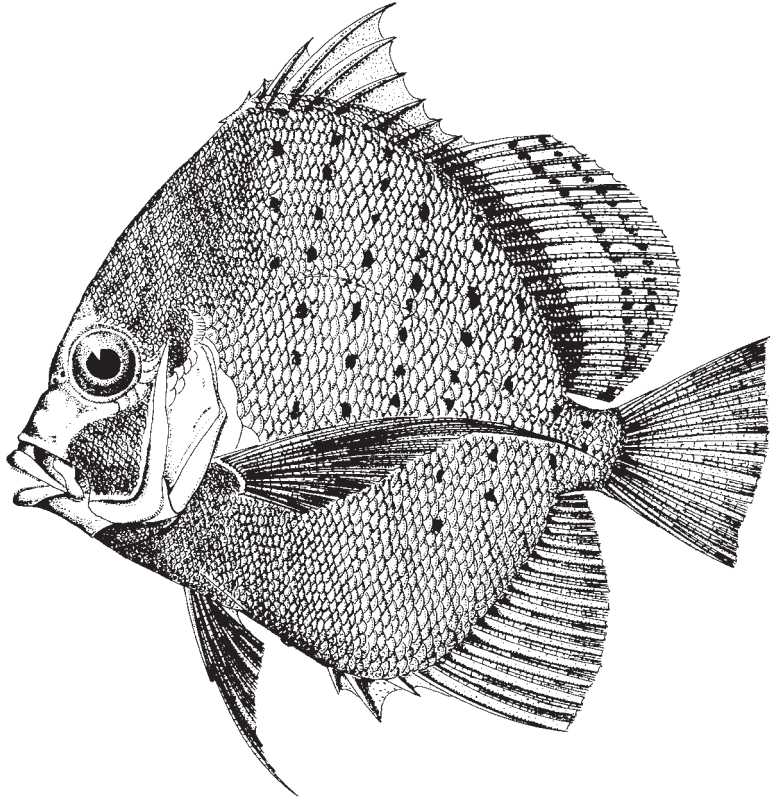
Drepane punctata (Linnaeus, 1758)

SPS

Frequent synonyms / misidentifications: None / *Drepane longimana* (non Bloch and Schneider, 1801) .

FAO names: En - Spotted sicklefish; Fr - Forgeron tacheté; Sp - Catemo manchado.

Diagnostic characters: **Body oval and strongly compressed**, its depth 1.2 to 1.3 times in standard length and 2 to 3 times in head length. Snout profile straight or concave; pre-orbital deep, the eye well above horizontal line through upper jaw symphysis. Interorbital, preorbital, and broad preopercular flange naked; opercle scaly dorsally; ventral edge of preopercle serrate in juveniles; a fringe of cirri just behind chin. **Mouth highly protrusible, forming a downward-pointing tube when protruded**; jaws with bands of setiform teeth; no teeth on roof of mouth; maxilla exposed posteriorly, no supramaxilla. First gill arch with 5 gill rakers on upper limb, 10 or 11 on lower limb. **A single dorsal fin, with VIII to X (usually IX) spines (third or fourth spines longest) and 20 to 22 soft rays; anal fin with III spines and 16 to 19 soft rays**; caudal fin rounded or bluntly wedge-shaped (almost truncate in large adults); **pectoral fins elongate, falciform, reaching caudal peduncle**, with 16 to 18 rays. Lateral-line scales 46 to 50. Large adults with a bump or bony knob on interorbital region, a result of hyperostosis of frontal bones. **Colour:** head and body silvery; **dorsal part of body from below dorsal fin to caudal peduncle with 5 to 10 series of black spots arranged in vertical lines**; fins dusky yellow; dorsal and caudal fins darker distally; 2 or 3 longitudinal rows of small dark spots (1 on each interradiar membrane) on soft dorsal fin.



Size: Maximum total length about 40 cm.

Habitat, biology, and fisheries: Occurs in a variety of inshore habitats, such as sand or mud bottoms, reefs, estuaries, and harbours. Biology little known. Mostly caught with trawls, occasionally with hook-and-line. From 1990 to 1995, the FAO Yearbook of Fishery Statistics reports a range of yearly catch of around 580 to 950 t of *Drepane punctata* from the Western Central Pacific (Malaysia, Philippines).

Distribution: Temperate and tropical waters from India to northern Australia, Indonesia, New Guinea, Philippines, Taiwan Province of China, and Japan.

