

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W, Indian Ocean)

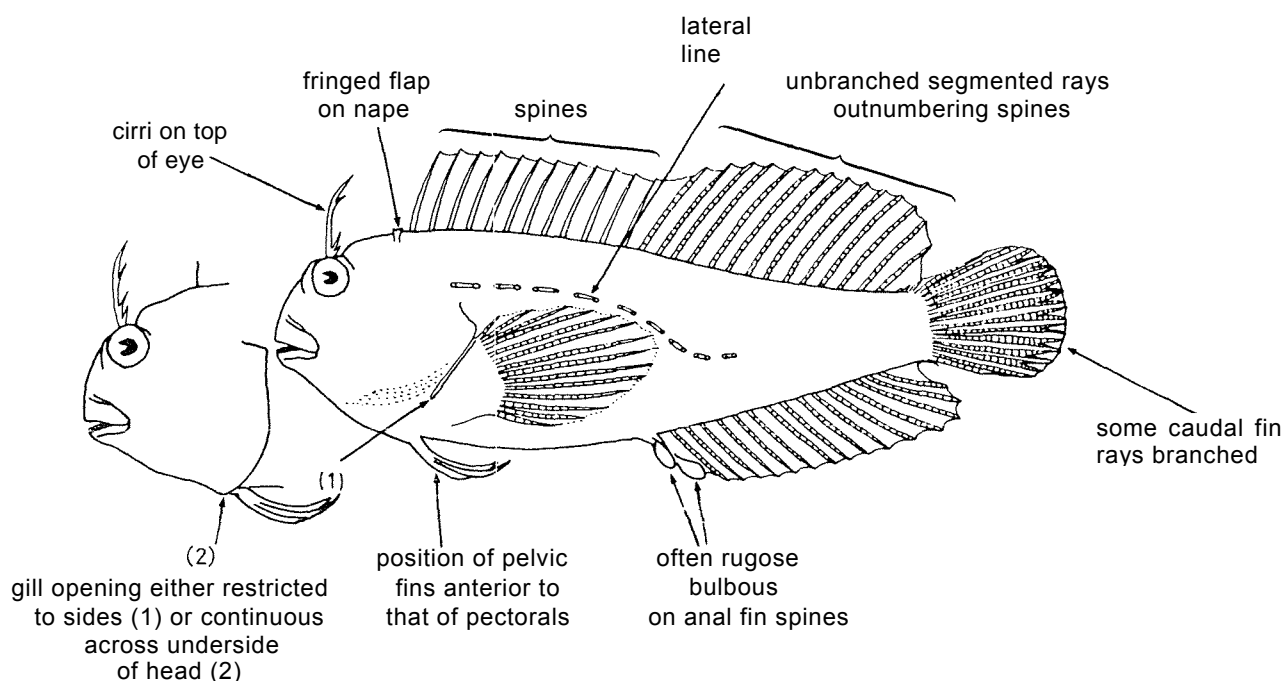
BLENNIIDAE

Combtooth and sabertooth blennies

Small, often elongate fishes, largest species about 20 cm, most under 15 cm (except the genus *Xiphasia*, which comprises fishes with eel-shaped body and a maximum size of 53.2 cm). Head often with cirri on eye, also on the nape and on posterior rim of anterior nostril, sometimes on the anterior and posterior rims of both their nostrils, or rarely distributed over the head in association with the pores of lateral line system; eyes high on sides of head; mouth ventral, upper jaw not protrusible; gill membranes either continuous with each other across ventro-posterior surface of head or restricted to sides of head (a separate gill opening on each side); a single row of incisor-like teeth in each jaw and often a canine-like tooth posteriorly (sometimes also anteriorly) on each side of lower and, sometimes, upper jaw; teeth on vomer sometimes present (but never on palatines). Dorsal and anal fins long, their spines flexible; dorsal fin with fewer spines than segmented (soft) rays; two spines in anal fin, scarcely differentiated from the segmented rays, the first not visible in females, both sometimes supporting fleshy bulbous, rugose swellings at their tips in males; pelvic fins inserted anterior to position of pectoral fins, with 1 spine (not visible externally) and 2 to 4 segmented rays; pelvic fin sometimes deformed or absent; caudal fin rays branched or unbranched, all other segmented fin rays unbranched (simple). Lateral-line tubes or canals varying from complete (extending through entire length of body) to present only anteriorly on body (sometimes lacking). All species lack scales.

Colour: very variable, often mottled or with irregular bands on body.

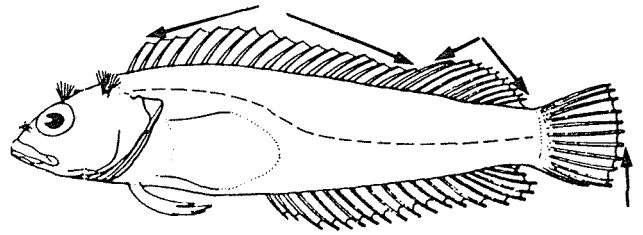
Benthic inhabitants of the sea and estuaries, usually at very shallow depths; often found in tide-pools, on the wharf pilings, oyster reefs, rock and coral reefs; occasionally in marine grass beds (only the two species of *Xiphasia* semi-pelagic mostly in depths between 25 and 50 m). Although very abundant in littoral areas, none of the blenniids in the area are of commercial importance, mainly because of their small size; they are sometimes caught in traps or by bottom trawl, but usually not used for food.



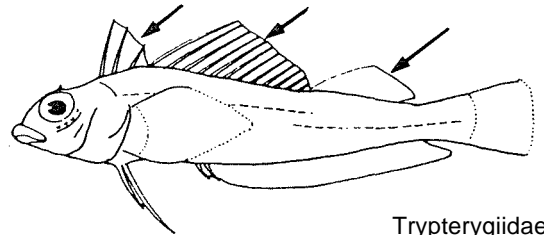
SIMILAR FAMILIES OCCURRING IN THE AREA:

Clinidae: caudal fin rays always unbranched; usually more dorsal fin spines than segmented rays (always more dorsal segmented rays than spines in Blenniidae); many species with scales; those lacking scales without lateral line tubes on body (lateral line tubes well developed at least anteriorly in all blenniids).

Trypterygiidae: body always scaled; three clearly defined dorsal fins.



Clinidae



Trypterygiidae

KEY TO GENERA OCCURRING IN THE AREA:

1a. Gill opening continuous from one side of head to the other across ventral surface of head; caudal rays branched or unbranched (branched in most genera) (Fig.1); swim bladder absent

lateral line with regularly short transverse branches

2a. Canine teeth in lower and upper jaw present (Fig.2)

3a. Supraorbital cirrus and cirrus on posterior rim of anterior nostril present; no nape cirri; lateral line forming a continuous tube anteriorly, with regularly short transverse branches (Fig.1); fleshy crest on top of head absent ...Parablennius

3b. Supraorbital cirrus present; lateral line forming a continuous tube anteriorly, without regularly short transverse branches; fleshy crest on top of head in males present (Fig.3)Salaria

2b. Canine teeth in lower jaw present or absent; no canine teeth in upper jaw

4a. Canine teeth in lower jaw present; supraorbital cirrus and cirrus on posterior rim of anterior nostril present; nape with a longitudinal dermal crest reaching to front of dorsal fin, provided with a longitudinal series of simple cirri (Fig.4)Scartella

4b. Canine teeth in lower jaw present or absent; cirri on nostrils, on eye and on nape present or absent; nape without a longitudinal dermal crest and without a longitudinal series of simple cirri

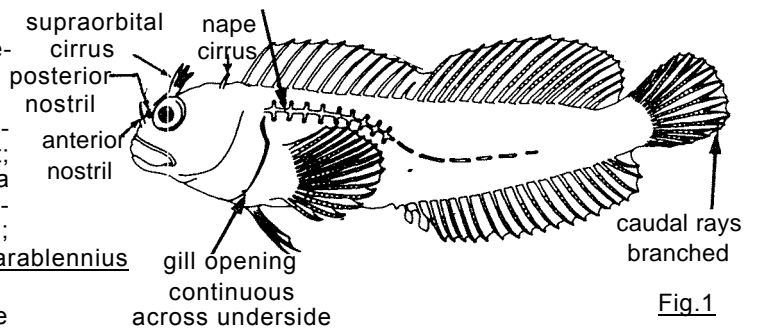


Fig.1

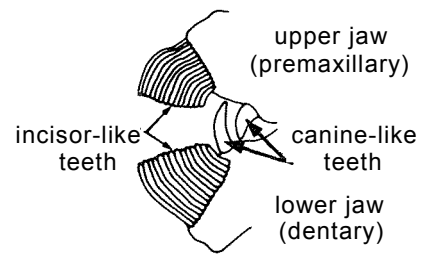


Fig.2

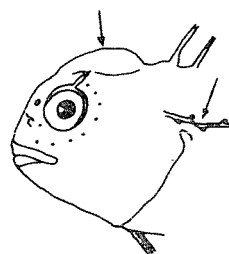


Fig.3

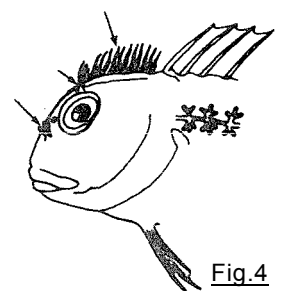
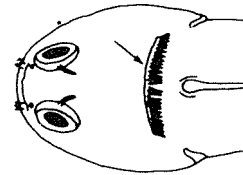


Fig.4

5a. Nape cirri numerous, comblike, transversely broad-based (Fig.5); lateral line complete, extending to, or almost to, caudal-fin base



top of head

Fig.5

6a. Segmented dorsal fin rays 14 or 15; segmented anal fin rays 14 to 16 (rarely 14); teeth freely movable in both jaws; upper jaw teeth subequal in breadth to lower jaw teeth; lower jaw teeth 85 to 135, about half as numerous as in upper jaw; 1 or 2 canine teeth posteriorly on both sides of lower jaw; nape cirri consisting of an elongate, transverse series of cirri continuous across nape or interrupted at midline of nape by a narrow hiatus no greater than 25 percent of length of base of either patch of cirri (Fig.5) Cirripectes

6b. Segmented dorsal fin rays 11 to 13; segmented anal fin rays 12 to 14; teeth freely movable in upper jaw, scarcely movable in lower jaw; lower jaw teeth nearly twice as broad as upper jaw teeth; lower jaw teeth less than 65, about one-third as numerous as in upper jaw; canines posteriorly on both sides of lower jaw present or absent

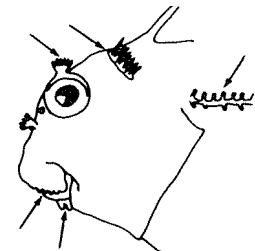
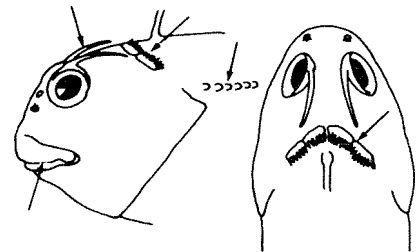


Fig.6

7a. Upper lip crenulate; supraorbital cirrus multifid; lateral line with numerous vertically paired side branches anteriorly; no imbricate scale-like flaps covering anterior lateral line pores; a pair of fleshy processes on each side of chin just behind lower lip; dentary canines absent; nape cirri consisting of an elongate, transverse series of cirri interrupted at midline of nape by a narrow hiatus (Fig.6) Exallias

7b. Upper lip entire; supraorbital cirrus simple; lateral line without side branches; imbricate scale-like flaps covering anterior lateral line pores; no fleshy processes on chin; canine teeth posteriorly on both sides of lower jaw present; nape cirri consisting of a series of 4 elongate, transverse, contiguous or slightly overlapping patches of cirri interrupted at midline by a narrow hiatus (Fig.7) Pereulixia



top of head

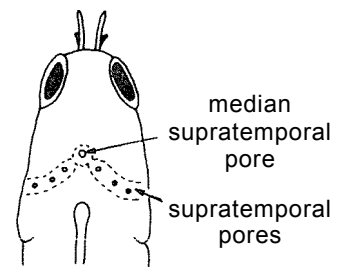
Fig.7

5b. Nape cirri, if present, not as in 5a, often simple, flap-like or palmate; lateral line complete or incomplete

8a. Nape and supraorbital cirri; absent; a single median supratemporal commissural pore (Fig.8); all caudal fin rays simple or only tips of some rays weakly branched

9a. Pectoral fin rays usually 13 to 16; caudal fin rays simple; males without a fleshy median crest on top of head Ecsenius

9b. Pectoral fin rays 12; caudal fin rays weakly branched at tips; males with a fleshy median crest on top of head Dodekablennos



top of head

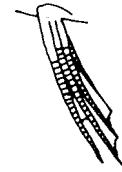
Fig.8

8b. Cirri present on either nape or eye or on both

10a. Dorsal fin spines 11; caudal fin rays simple; pectoral fin rays 15 or 16; colour of head and body almost uniformly dark Atrosalarias

10b. Dorsal fin spines 11 to 17 (rarely 11); caudal fin rays simple or branched; pectoral fin rays 13 to 16 (rarely 16); colour of head and body not uniformly dark

11a. Total dorsal fin elements 21 to 23; segmented dorsal fin rays 9 to 12; segmented anal fin rays 10 to 13; segmented caudal fin rays 13, the 9 middle rays branched; pelvic fins with 4 segmented rays (Fig.9) Stanulus



pelvic fin

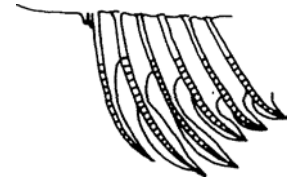
Fig.9

11b. Total dorsal fin elements 26 to 38; segmented dorsal fin rays 13 to 24; segmented anal fin rays 14 to 28

12a. Upper jaw teeth freely movable, exceeding 100 in adults

13a. Caudal fin rays simple; segmented anal fin rays 23 to 28; pelvic fins with 3 or 4 segmented rays Alticus

13b. Some caudal fin rays branched near tips; segmented anal fin rays 17 to 25



anterior anal fin rays

Fig.10

14a. Anterior anal fin rays often elongated in mature males (Fig.10); segmented pelvic fin rays 3 (the innermost ray reduced, only visible in skeletal preparations); terminal anal fin ray partially bound to caudal peduncle by a membrane; dorsal fin spines 12 or 13, typically 12 Salarias

14b. Anterior anal fin rays not elongate in mature males

15a. Terminal anal fin ray bound by a membrane to caudal peduncle (Fig.11); a thin, fleshy crest on top of head (low and poorly developed in females); pectoral fin rays usually 13; segmented pelvic fin rays 3 (the innermost pelvic ray reduced, only visible in skeletal preparations) Glyptoparus

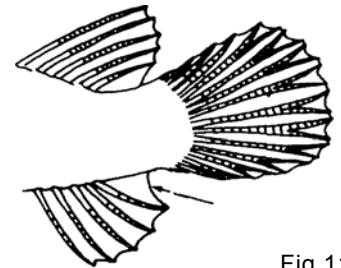


Fig.11

15b. Terminal anal fin ray completely free from caudal peduncle (Fig.12)

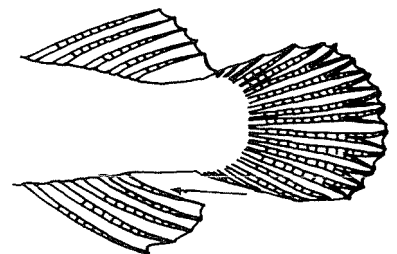
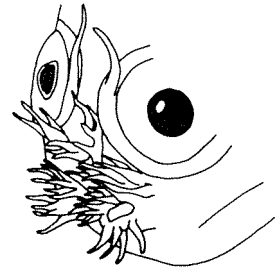


Fig.12

- 16a. Dorsal fin spines 13 or 14; segmented pelvic fin rays 3 or 4; pectoral fin rays 12 to 15 (rarely 15); high, thin fleshy crest on top of head present or absent (lacking in some females); lower jaw without posterior canine teeth Istiblennius
- 16b. Segmented pelvic fin rays 4 (Fig.9); pectoral fin rays 12 to 15 (usually 14); fleshy crest on top of head absent or present only as low ridge; lower jaw with posterior canine teeth Entomacrodus
- 12b. Upper jaw teeth immovable or nearly so, 18 to 80 in number
 - 17a. Head conspicuous for numerous cirri, which cover snout region (Fig.13); nape cirri absent; nostrils relatively enormous (but obscured by cirri); upper jaw teeth fewer than 30; pectoral fin rays usually 14 Cirrisalarias
 - 17b. Nostrils, supraorbital and nape cirri present, simple to multifid
 - 18a. Dorsal fin spines usually 13; nape cirri near the median line, palmate, multifid or a simple flap; nostrils and supra orbital cirri present (Fig.14) Mimoblennius
 - 18b. Dorsal fin spines usually 12; nape cirri usually not near the median line; nostrils, supraorbital and nape cirri present or absent
 - 19a. Canine teeth posteriorly on both sides of lower jaw well developed; nostrils, supraorbital and nape cirri simple and present Hirculops
 - 19b. Canine teeth on lower jaw absent or minute
 - 20a. Supraorbital cirri usually present (lacking only in one species); nape cirri present or absent; nostrils and nape cirri shorter than orbital diameter; fleshy median crest on top of head absent; canine teeth in lower jaw absent Altoblennius
 - 20b. Supraorbital cirri absent; nape cirri present; nostrils and nape cirri shorter to much longer than orbital diameter; fleshy median crest on top of head present or absent, canine teeth posteriorly in lower jaw present, minute Antennablennius



snout region Fig.13

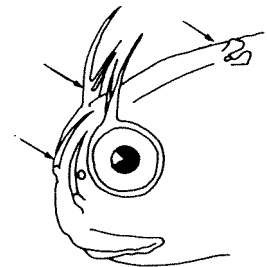


Fig.14

1b. Gill openings restricted to side of head; caudal rays unbranched(Fig.15); swim bladder absent or present

21a. Pelvic fin with 1 spine (not visible) and 2 segmented rays; swim bladder absent

22a. Cirri present on rims of anterior and posterior nostrils; circumorbital pores 9 to 12 (usually 10)(Fig.16a); one or more pores just anterior to median supratemporal pore (Fig.8) Laiphongathus

22b. Cirri absent on rims of nostril circum-orbital pores 7 to 9 (Fig.16u); no pores anterior to median supratemporal pore, which may also be absent (Fig.8)

23a. Interorbital pores 2 to 4; median supratemporal pore present; 3 mandibular pores; supratemporal-preoperculo-mandibular pores 13 (Fig.17); dorsal fin spines 10 to 14 (rarely 10); pectoral fin rays 12 to 14 (rarer 12 or 14 in and species) ... Omobranchus

23b. Two mandibular pores; supratemporal-preoperculo-mandibular pores 11 or 12

24a. Dorsal fin spines 11 to 13; pectoral fin rays 13 (rarely 14); gill opening restricted to area dorsal to level of 5th pectoral fin ray (from dorsal-most); dorsal and anal fins attached to edges of caudal fin for not more than one-sixth of caudal fin length Parenchelyurus

24b. Dorsal fin spines 6 to 10; pectoral fin rays 13 to 17 (usually 14 to 16); gill opening variable, frequently extending ventrally below level of 5th pectoral fin ray (from dorsal-most); dorsal and anal fins attached to edges of caudal fin for more than one-third of caudal fin length (except in Enchelyurus petersi, where they are attached at caudal fin base) Enchelyurus

21b. Pelvic fin with 1 spine (not visible) and 3 segmented rays, or absent; swim bladder present (except in Xiphasia)

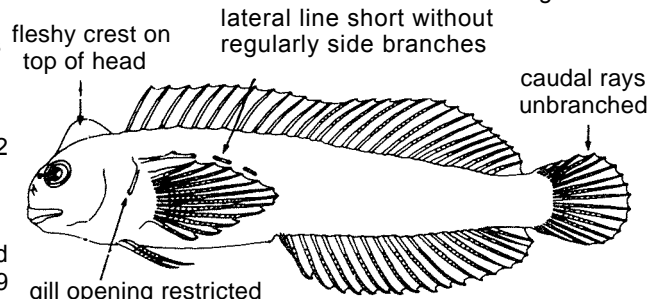


Fig.15

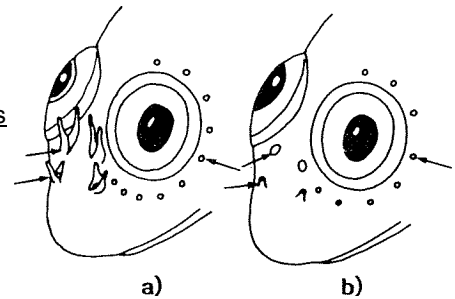


Fig.16

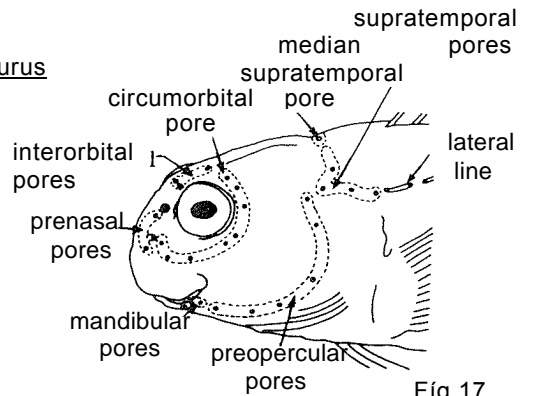


Fig.17

25a. Origin of dorsal fin over orbits in adults (Fig.18); last ray of dorsal and anal fins broadly bound by a membrane to caudal fin (Fig.19); segmented anal fin rays 97 to 119; segmented caudal fin rays 10; body long and eel-shaped

Xiphasia

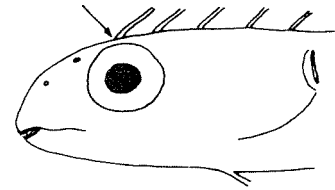


Fig.18

25b. Origin of dorsal fin distinctly behind or over posterior rim of orbits in adults; last ray of dorsal and anal fins broadly bound by a membrane to caudal peduncle (not to caudal fin); segmented anal fin rays 14 to 58; segmented caudal fin rays 11 to 13; body not eel-shaped

26a. Canine teeth in lower jaw with a deep groove along anterior surface; a prominent gland on each side of lower jaw extending into base of canine teeth (Fig.20); dorsal fin spines 3 to 5; dorsal fin rays 23 to 27

Meiacanthus

26b. Canine teeth in lower jaw without a groove along anterior surface; no glands associated with lower jaw canines

27a. Pectoral fin rays 11 to 13 (typically 12); lateral line absent; dorsal fin spines 6 to 12; segmented dorsal fin rays 25 to 39

Plagiotremus

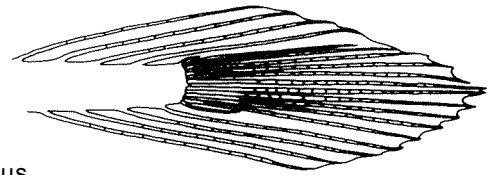


Fig.19

27b. Pectoral fin rays 13 to 16; lateral line extending posteriorly beneath dorsal fin at least to base of last spine

28a. Lower margin of gill opening entirely above pectoral fin base; dorsal fin spines 10 to 12; segmented dorsal fin rays 14 to 21; segmented anal fin rays 14 to 21; supraorbital cirrus present or absent; post-temporal cirrus usually present (additional cirri on head present, except in one species (Fig.21)

Petroscirtes

28b. Lower margin of gill opening extending ventrally at least to point opposite base of third pectoral fin ray (counting ventrally); dorsal fin spines 9 to 12; segmented dorsal fin rays 26 to 34; segmented anal fin rays 25 to 30; supraorbital cirrus absent; post-temporal cirrus absent

Aspidontus

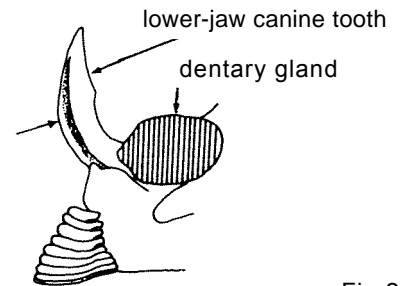


Fig.20

LIST OF SPECIES OCCURRING IN THE AREA*:

Subfamily Blenniini

- Parablennius cyclops (Rüppell, 1830)
- Parablennius lodosus (Smith, 1959)
- Parablennius opercularis (Murray, 1887)
- Parablennius pilicornis (Cuvier, 1829)
- Salaria pavo (Risso, 1810)
- Scartella emarginata (Günther, 1861)

post-temporal cirrus

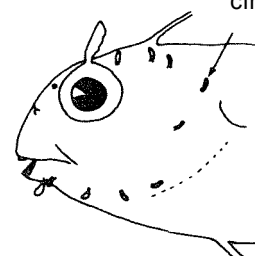


Fig.21

*The species of the genera Alticus, Cirripectes and Istiblennius are presently impossible to assign. The exact number and the names of these species cannot be given until these genera have been revised

Tribe Salariaiini

Alloblennius anuchalis (Springer & Spreitzer, 1978)

Alloblennius jugularis (Klunzinger, 1871)

Alloblennius parvus Springer & Spreitzer, 1976

Alloblennius pictus (Lotan, 1970)

Alticus andersonii (Day, 1878)

Alticus kirkii (Günther, 1868)

Alticus kirkii magnusi (Klausewitz, 1964)

Alticus monochrus Bleeker, 1869

Alticus monochrus anjouanae (Fourmanoir, 1954)

Alticus saliens (Forster, 1788)

Antennablennius adenensis Fraser-Brunner, 1951

Antennablennius australis Fraser-Brunner, 1951

Antennablennius bifilum (Günther, 1861)

Antennablennius ceylonensis Bath, 1983

Antennablennius hypenetes (Klunzinger, 1871)

Antennablennius simonyi (Steindachner, 1902)

Antennablennius variopunctatus (Jatzow & Lenz, 1898)

Atrosalarias fuscus fuscus (Rüppell, 1838)

Cirripectes auritus Carlson, 1981

Cirripectes cruentus Smith, 1959

Cirripectes fuscoguttatus Strasburg & Schultz, 1953

Cirripectes perustus Smith, 1959

Cirripectes sebae (Valenciennes, 1836)

Cirrisalarias bunares Springer, 1976

Dodekablennos fraseri Springer & Spreitzer, 1978

Ecsenius aroni Springer, 1971

Ecsenius bicolor (Day, 1888)

Ecsenius frontalis (Ehrenberg, 1836)

Ecsenius gravieri (Pellegrin, 1906)

Ecsenius lineatus Klausewitz, 1962

Ecsenius midas Starck, 1969

Ecsenius nalolo Smith, 1959

Ecsenius pulcher (Murray, 1887)

Ecsenius yaeyamaensis (Aoyagi, 1954)

Entomacrodus epalzeocheilus (Bleeker, 1859)

Entomacrodus niufoouensis (Fowler, 1932)

Entomacrodus straitus (Quoy & Gaimard, 1836)

Entomacrodus thalassinus thalassinus (Jordan & Seale, 1906)

Entomacrodus vermiculatus (Valenciennes, 1836)

Exallias brevis (Kner, 1868)

Glyptoparus delicatulus Smith, 1959

Hirculops cornifer (Rüppell, 1829)

Istiblennius andamensis (Day, 1870)

Istiblennius barbatus (Gilchrist & Thompson, 1908)

Istiblennius bellus impudens Smith, 1959

Istiblennius chrysospilos insulinus Smith, 1959

Istiblennius dussumieri (Valenciennes, 1836)

Istiblennius edentulus (Bloch, 1801)

Istiblennius flaviumbrinus (Rüppell, 1830)

Istiblennius gibbifrons insolitus Smith, 1959

Istiblennius lineatus (Valenciennes, 1836)
Istiblennius olivaceus (Blyth, 1858)
Istiblennius rivulatus (Rüppell, 1830)
Istiblennius steinitzi Lotan, 1970

Mimoblennius atrocinctus (Regan, 1909)
Mimoblennius cas Springer & Spreitzer, 1978
Mimoblennius cirrosus Smith-Vaniz & Springer, 1971
Mimoblennius rusi Springer & Spreitzer, 1978

Pereulixia kosiensis (Regan, 1908)

Salarias fasciatus (Bloch, 1786)
Salarias sinuosus Snyder, 1908

Stanulus seychellensis Smith, 1959

Tribe Omobranchini

Enchelyurus kraussi (Klunzinger, 1871)
Enchelyurus etersi (Kossmann & Rguber, 1877)

Laiphognathus multimaculatus Smith, 1955

Omobranchus banditus Smith, 1959
Omobranchus elongatus (Peters, 1855)
Omobranchus fasciolatus (Valenciennes, 1836)
Omobranchus ferox (Herre, 1927)
Omobranchus hikkaduwaensis n.sp
Omobranchus mekranensis (Regan, 1905)
Omobranchus punctatus (Valenciennes, 1836)
Omobranchus steinitzi Springer & Gomon, 1975
Omobranchus woodi (Gilchrist & Thompson, 1908)

Parenchelyurus hepburni (Snyder, 1908)

Tribe Nemophini

Aspidontus dussumieri (Valenciennes, 1836)
Aspidontus taeniatus tractus Fowler, 1903

Meiacanthus fraseri Smith-Vaniz, 1976
Meiacanthus mossambicus Smith, 1959
Meiacanthus nigrolineatus Smith-Vaniz, 1969
Meiacanthus smithi Klausewitz, 1961

Petroscirtes ancylodon Rüppell, 1830
Petroscirtes breviceps (Valenciennes, 1836)
Petroscirtes mitratus Rüppell, 1830
Petroscirtes variabilis Cantor, 1850
Petroscirtes xestus Jordan & Seale, 1906

Plagiotremus phenax Smith-Vaniz, 1966
Plagiotremus rhinorhynchos (Bleeker, 1852)
Plagiotremus tapeinosoma (Bleeker, 1857)
Plagiotremus townsendi Regan, 1905)

Xiphasia matsubarae Okada & Suzuki, 1952
Xiphasia setifer Swainson, 1839

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