

2. SYSTEMATIC CATALOGUE

2.1 Illustrated Key to Genera and Monotypic Species

1a. Base of dorsal and anal fins, especially soft portions, with covering of scales (Fig. 1)

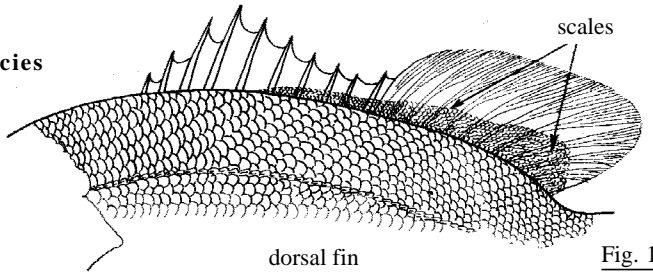


Fig. 1

2a. Anterior part of roof of mouth (vomer) with a patch of small teeth (Fig. 2), usually crescentic, V-shaped, triangular, anchor-shaped, or diamond-shaped; anterior portion of soft dorsal and anal fins not significantly taller than posterior part, the anterior fin rays never produced into elongate filaments (Figs 4, 6, 7, 10, 11, 13)

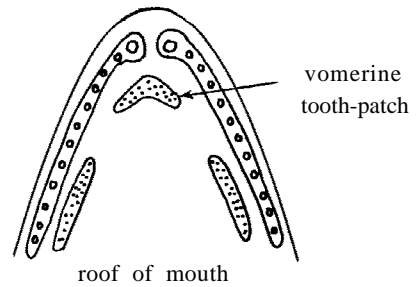


Fig. 2

3a. Gill rakers long and slender, very numerous, more than 50 on lower limb of first gill arch (Fig. 3a) .....

Macolor  
(Fig. 4)

3b. Gill rakers shorter, less than 25 on lower limb (Fig. 3b)

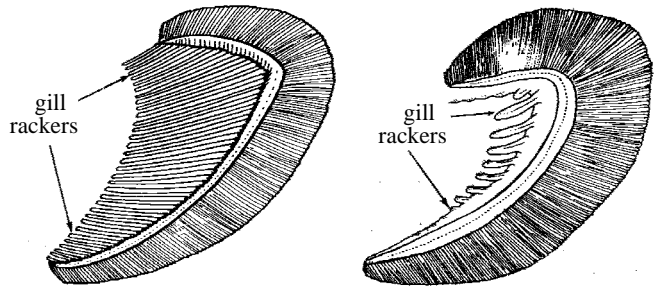
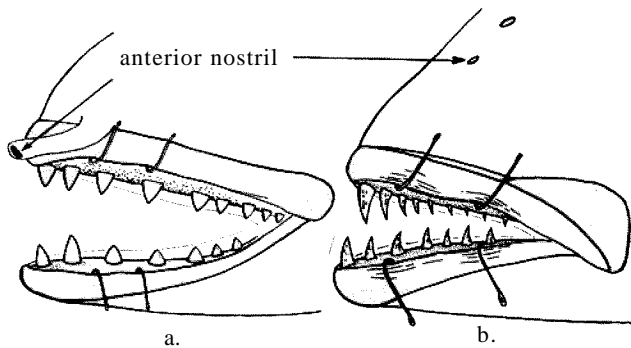


Fig. 3

4a. Teeth in jaws conical to molariform, short and stout; vomerine teeth usually less than 5, relatively large and molariform; anterior nostril opening through a tube above the upper lip (Fig. 5a) .....

Hoplopagrus  
(Hoplopagrus guntheri only)

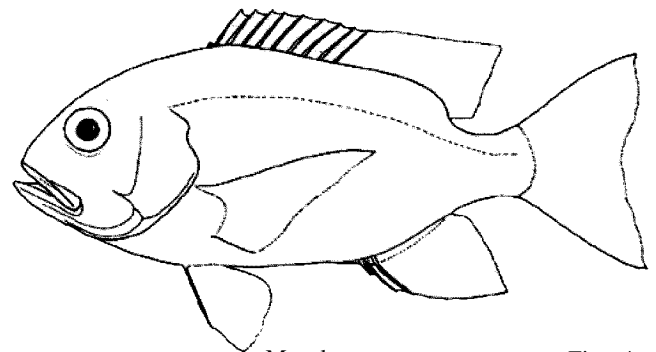
4b. Teeth in jaws more elongate, villiform to caniniform; vomerine teeth numerous and villiform; anterior nostril not opening through a tube (Fig. 5b)



jaws of Hoplopagrus  
(lips pulled back and partially dissected)

jaws of Lutjanus sp.  
(lips pulled back and partly dissected)

Fig. 5



Macolor

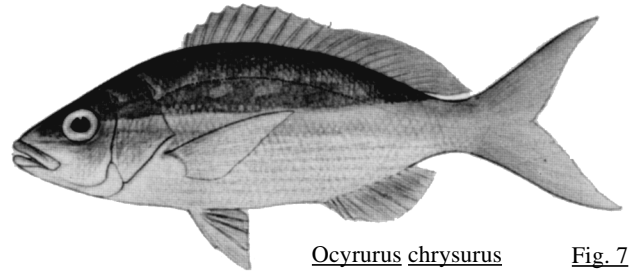
Fig. 4



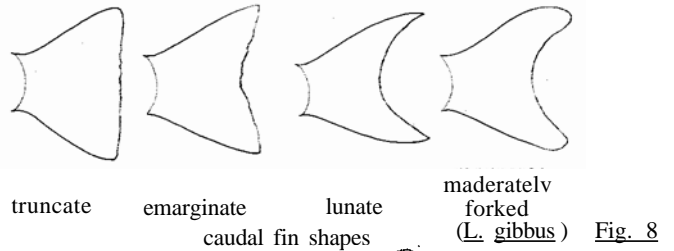
Hoplopagrus guntheri

Fig. 6

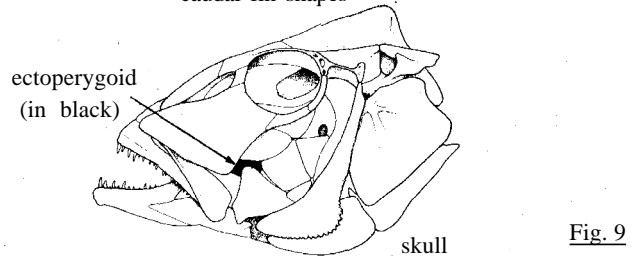
5a. Caudal fin deeply forked with pointed lobes, body relatively slender and fusiform; gill rakers on lower limb of first arch (including rudiments) 21 to 23; western Atlantic distribution ..... **Ocyurus**  
(*Ocyurus chrysurus* only)  
(Fig. 7)



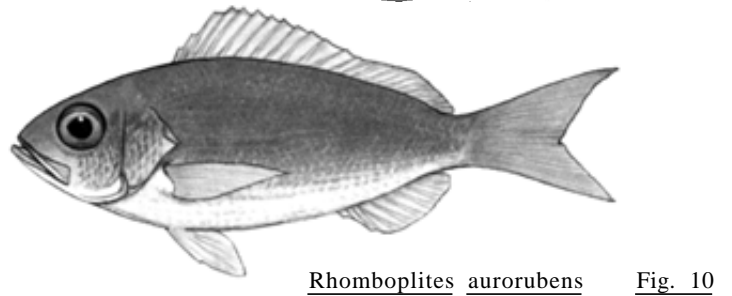
5b. Caudal fin truncate to emarginate or lunate (except moderately forked in *Lutjanus gibbus*, which has rounded lobes) (Fig. 8); body shape variable, very deep to slender; gill rakers variable, but usually less than 20 in most species



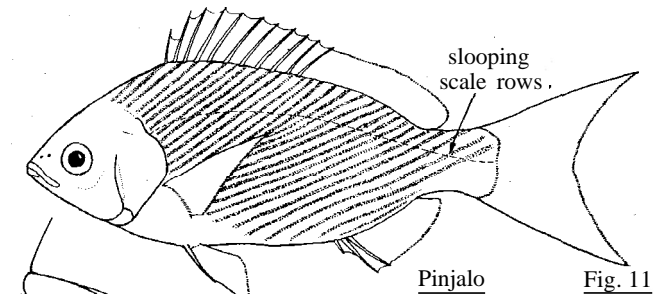
6a. Dorsal spines 12; gill rakers on lower limb of first arch 19 to 22; no enlarged canine teeth in jaws; ectopterygoid bones (Fig. 9) with villiform teeth; western Atlantic distribution ..... **Rhomboplites**  
(*Rhomboplites aurorubens* only)  
(Fig. 10)



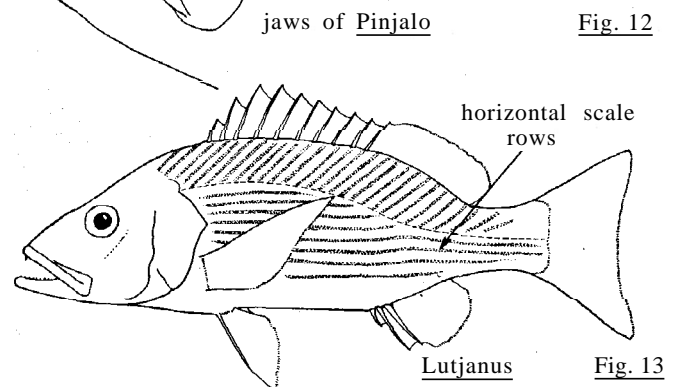
6b. Dorsal spines 10 to 12 (10 or 11 in most species); gill rakers on lower limb of first arch 20 or less (less than 16 in most species); jaws usually with enlarged canines anteriorly (except in *Pinjalo*); ectopterygoid bones (Fig. 9) toothless; Indo-Pacific and Atlantic distributions



7a. Upper and lower profiles of head equally rounded; eye set toward middle of head, its lower edge below line from snout tip to middle of caudal fin base; longitudinal scale rows below lateral line sloping upward in posterior direction; no fang-like canines at front of jaws although they may be slightly enlarged compared to lateral jaw teeth (Fig. 12) ..... **Pinjalo**  
(Fig. 11)



7b. Upper and lower profiles of head unequal, upper profile evenly rounded to steeply sloped, and lower profile flattened; eye closer to upper profile of head, its lower edge generally above line from snout tip to middle of caudal fin base; longitudinal scale rows below lateral line usually horizontal (except sloping upward in *L. erythropterus* and *L. gibbus*); some fang-like canines usually present at front of jaws (Fig. 5b) ..... **Lutjanus**  
(Fig. 13)



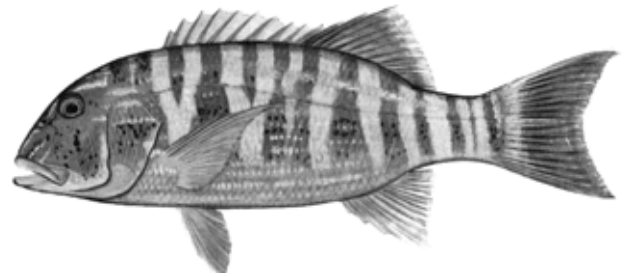
2b. Anterior part of roof of mouth (vomer) without a patch of teeth; anterior portion of soft dorsal and anal fins elevated, much taller than posterior part, third through sixth soft rays of dorsal fin and second through fourth soft rays of anal fin produced into elongate filaments, at least in juveniles and sub-adults



*Symphorichthys spilurus* Fig. 14

8a. Snout steeply sloped, vertical or nearly so, with a distinct interorbital hump, at least in adults; no groove or pit between eye and nostrils . . . ***Symphorichthys***  
(*Symphorichthys spilurus* only)  
(Fig. 14)

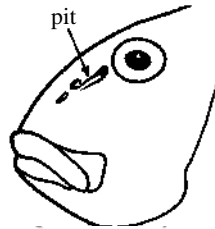
8b. Snout more rounded, not vertical or nearly so, without an interorbital hump; a groove or pit in the region between front of eye and nostrils . . . . . ***Symphorus***  
(*Symphorus nematophorus* only)  
(Fig. 15)



*Symphorus nematophorus* Fig. 15

1b. Base of dorsal and anal fins entirely scaleless

9a. Dorsal fin deeply notched between spinous and soft portions; maxilla scaled . . . . . ***Etelis***  
(Fig. 16)



9b. Dorsal fin not deeply notched between spinous and soft portions (Figs 17, 18, 21, 22, 24, 27, 28); maxilla usually scaleless (except scaled in *Parapristipomoides* and some species of *Paracaesio*)

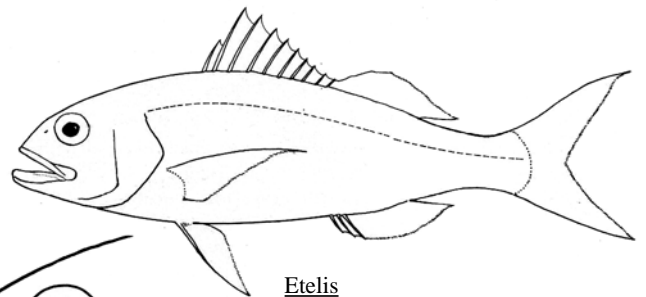
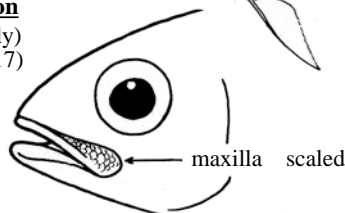
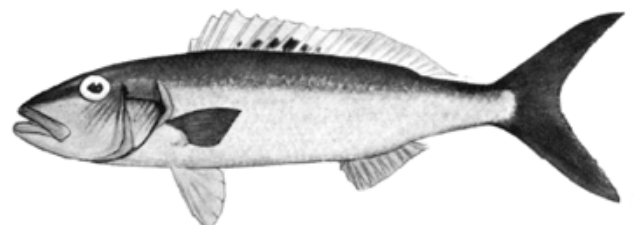
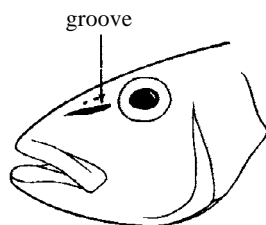


Fig. 16

10a. Pectoral fins short, about equal to snout length; a distinct groove in front of eye . . . . . ***Aprion***  
(*Aprion virescens* only)  
(Fig. 17)

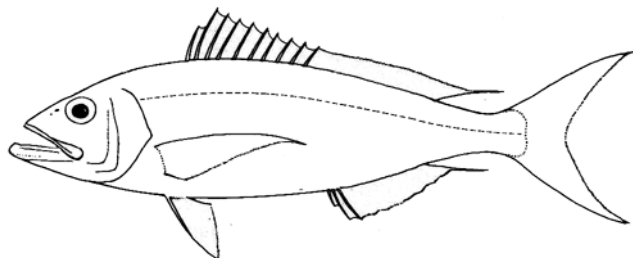


10b. Pectoral fins much longer than snout length (Figs 18, 21, 22, 24, 25, 27, 28); no groove in front of eye



*Aprion virescens* Fig. 17

11a. Roof of mouth toothless; teeth in jaws minute, no enlarged canines. . . . . **Aphareus** (Fig. 18)

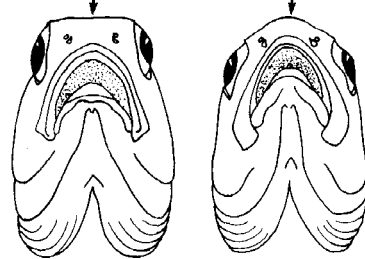


11b. Roof of mouth with villiform teeth on vomer and palatines (Fig. 19); teeth in jaws larger, usually with enlarged canines at front (except in Parapristipomoides)

12a. Last ray of dorsal and anal fins conspicuously longer than preceding rays, usually produced into an elongate extension; interorbital space flattened (Fig. 20a) . . . . . **Pristipamoides**

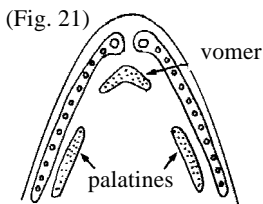
Aphareus Fig. 18

flattened convex



a. b. schematic front views of head

12b. Last ray of dorsal and anal fin shorter than penultimate ray or only slightly longer, not forming a conspicuous filament; interorbital space convex (Fig. 20b), except somewhat flattened in Lipocheilus

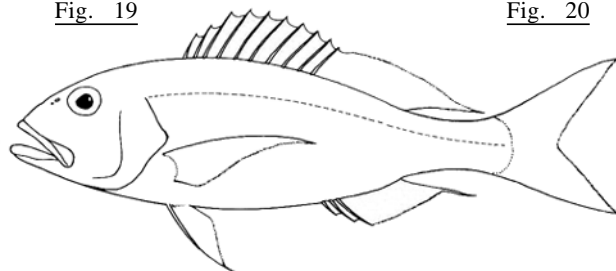


vomerine tooth-path on roof of mouth

Fig. 19

Fig. 20

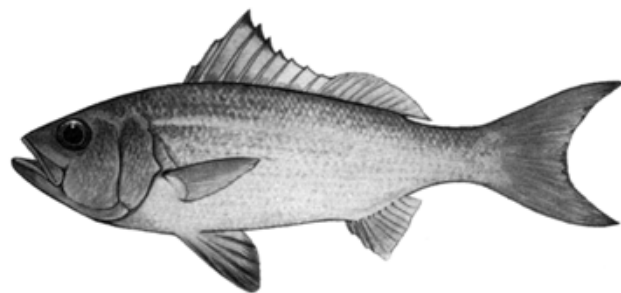
13a. Maxilla with a well-developed series of bony ridges on lateral surface; premaxilla (upper jaw) not protractile . . . **Randallichthys** (Randallichthys filamentosus only) (Fig. 22)



Pristipomoides Fig. 21

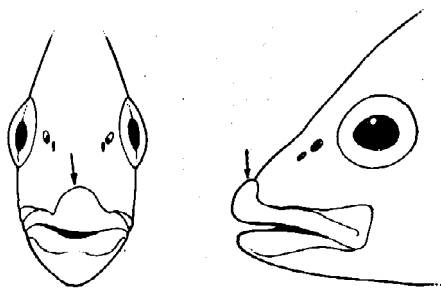
13b. Maxilla without bony ridges on lateral surface; premaxilla (upper jaw) protractile

14a. Upper lip with a median fleshy protuberance (Fig. 23); especially well developed in adults, mouth relatively large; dorsal spines thick, robust . . . . . **Lipocheilus** (Lipocheilus carnolabrum only) (Fig. 24)



Randallichthys filamentosus Fig. 22

14b. Upper lip without a fleshy protuberance, mouth smaller; dorsal spines relatively feeble to moderately developed



frontal view lateral view head of Lipocheilus carnolabrum

Fig. 23



Lipocheilus carnolabrum Fig. 24

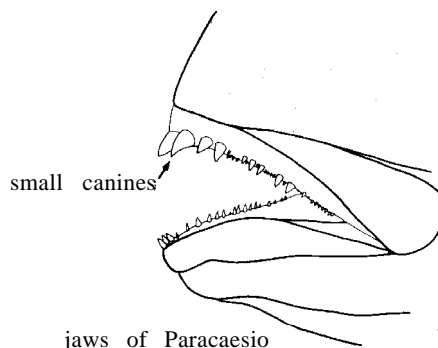
- 15a. Canine teeth absent from jaws; premaxilla scaled (as in Fig. 16); interorbital space slightly arched; south-eastern Oceania distribution (Easter Island and Rapa) ..... Parapristipomoides  
(Parapristipomoides squamimaxillaris only)  
(Fig. 25)



Parapristipomoides squamimaxillaris Fig. 25

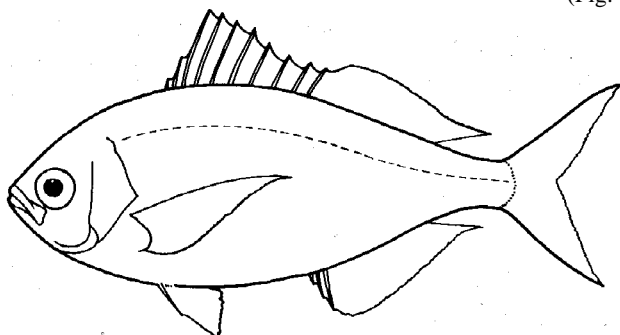
- 15b. Canine teeth present in jaws (although they may be only slightly enlarged) (Fig. 26); interorbital space strongly arched (Fig. 20b); Indo-Pacific or Atlantic distribution

- 16a. Upper and lower profiles of head evenly rounded; eye positioned toward middle of head, centered near line passing from snout tip to middle of caudal fin base; snout blunt; maxilla with or without scales; Indo-Pacific distribution ..... Paracaesio  
(Fig. 27)

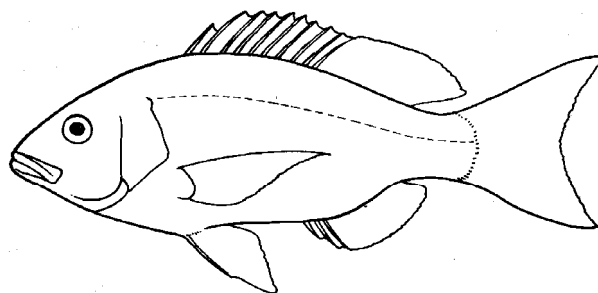


jaws of Paracaesio Fig. 26

- 16b. Upper and lower profiles of head uneven, somewhat flattened on ventral surface; eye positioned closer to upper profile, the pupil or entire eye above line passing from snout tip to middle of caudal fin base; snout more pointed; maxilla without scales: Atlantic distribution ..... Apsilus  
(Fig. 28)



Paracaesio Fig. 27



Apsilus Fig. 28