

FAO SPECIES IDENTIFICATION SHEETS

FISHING AREA 51
(W. Indian Ocean)

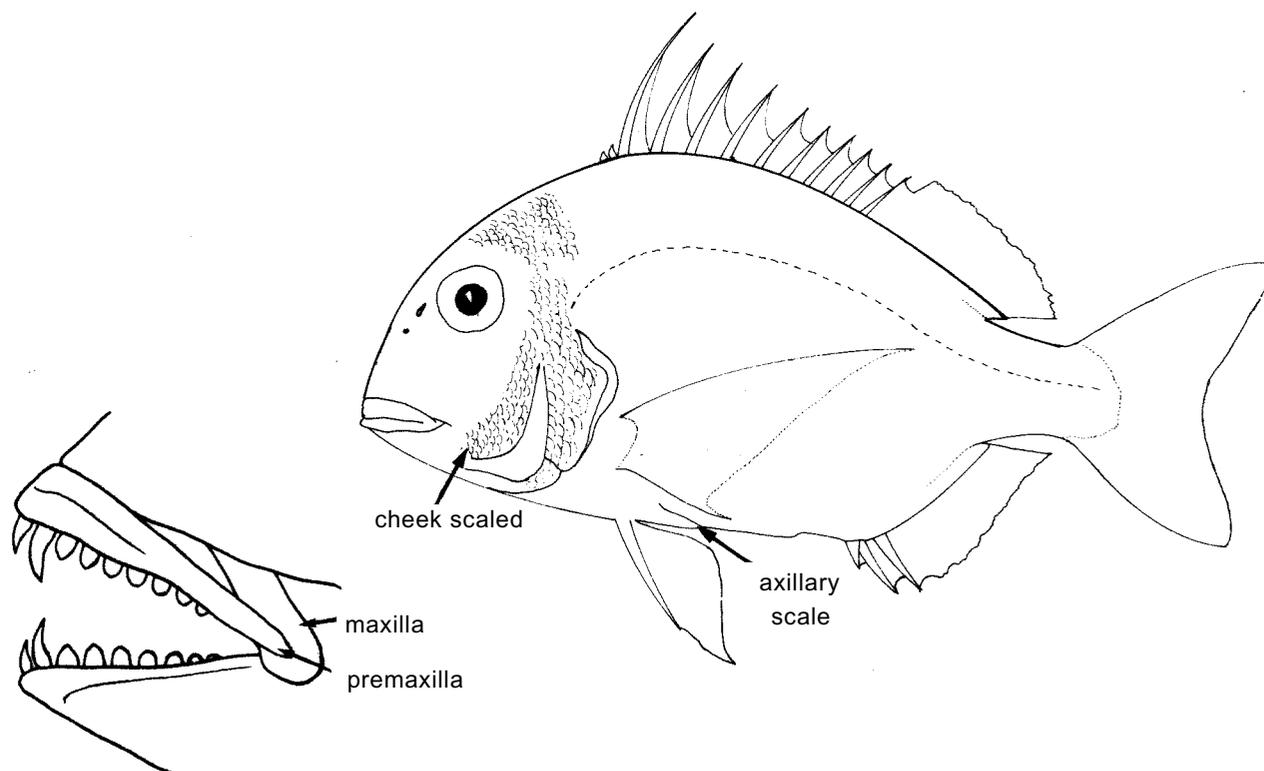
SPARIDAE

Dentex, hottentots, pandoras, porgies, salemas, seabreams, stumpnoses

Body oblong, more or less deep and compressed. Head large, often with a steep upper profile; snout scaleless, cheeks scaly, preopercle with or without scales, without spines or serrations on margin; opercle scaly without spines; mouth subhorizontal and slightly protrusible, upper jaw never reaching backward beyond a vertical line through middle of eye; hind tip of premaxilla overlapping maxilla, jaw teeth well developed, differentiated into either conical (canine-like), or flattened (incisor-like), and often rounded, molar-like; roof of mouth (vomer and palatines) toothless; gillrakers variable, 7 to 20 inferior* on first arch. Dorsal fin single, with 10 to 13 spines and 9 to 17 soft** rays, the spiny and soft portions not separated by a notch, anterior spines sometimes elongate or filamentous; anal fin with 3 spines and 7 to 15 soft** rays, the spines, especially the second, often stout; pectoral fins usually long and pointed; pelvic fins below or just behind pectoral fin bases, with 1 spine and 5 soft rays, and an axillary scale at their base; caudal fin more or less deeply emarginate or forked. Scales cycloid (smooth) or weakly ctenoid (rough to touch); a single continuous lateral line extending backward to base of caudal fin.

Colour: overall colour highly variable, from pinkish or reddish to yellowish or greyish, often with silvery or golden reflections, often with dark or coloured spots, stripes or bars.

Seabreams inhabit tropical and temperate coastal waters. They are demersal inhabitants of the continental shelf and the slope. The smaller species, as well as the young of large species, usually form aggregations, while large adults are less gregarious or solitary and occur in deeper waters. Occasionally they are found in estuaries used as nurseries. Hermaphroditism is widespread in this family. Most seabreams are excellent foodfish and are of notable commercial importance. The catch of seabream from Fishing Area 51 totalled about 8 000 tons in 1980.



*The gillraker in the angle of the arch has been included with those on the lower arch

**The last soft dorsal and anal ray double, being counted as one

SIMILAR FAMILIES OCCURRING IN THE AREA:

Haemulidae: edge of preopercle serrate; suborbital space scaled; at least 2 conspicuous pores beneath chin; also never molar teeth.

Lutjanidae: edge of preopercle usually serrate, and often excavated to accommodate a bony knob; also never molar or incisor-like teeth; palate usually toothed (except in Aphareus).

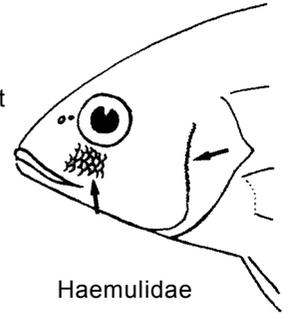
Lobotidae: edge of preopercle strongly toothed; never molar teeth; dorsal, anal and caudal fins rounded, appearing as a single tri-lobed fin (Triple-tails).

Serranidae: edge of preopercle serrate; suborbital space scaly; similar species lack pelvic axillary scale; caudal fin generally rounded, never forked; also never molar teeth.

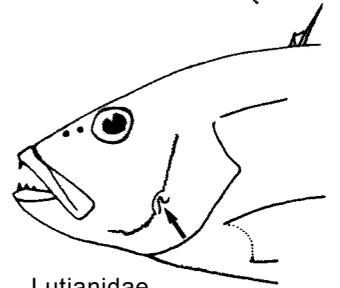
Lethrinidae: posterior tip of maxilla overlapping premaxilla (posterior tip of premaxilla overlapping maxilla in Sparidae); cheek and preopercular flange scaleless (but scales present on cheek in Wattsia, Monotaxis, Gymnocranius and Gnathodentex); 8 to 11 soft dorsal fin rays 9 to 17 in Sparidae; incisor-like teeth never present.

Kyphosidae: head entirely scaled, except for snout; teeth in jaw incisor-like, close-set and of a peculiar hockey-stick shape, with their base set horizontally, resembling a radially striated bone inside mouth.

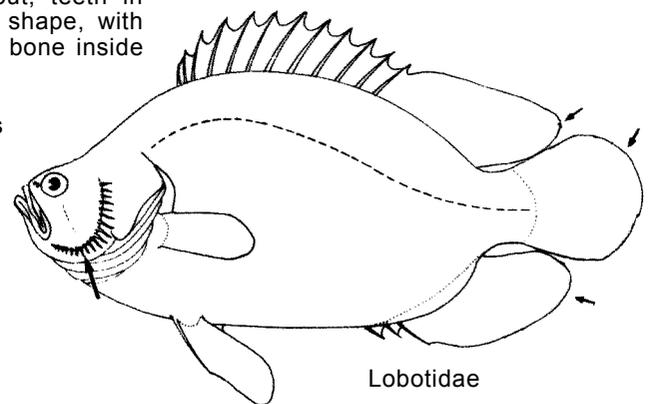
Cirrhitidae and Cheilodactylidae: lower pectoral rays simple and thickened.



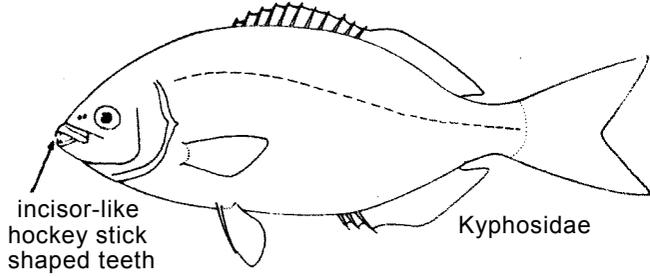
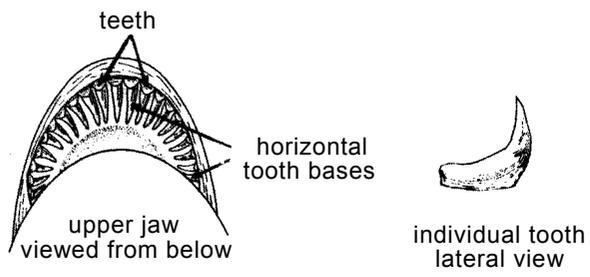
Haemulidae



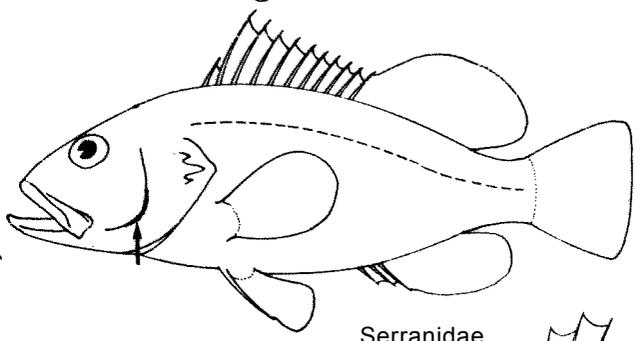
Lutjanidae



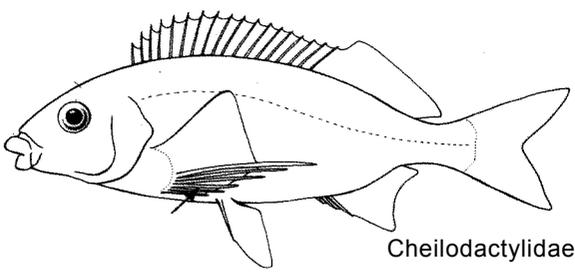
Lobotidae



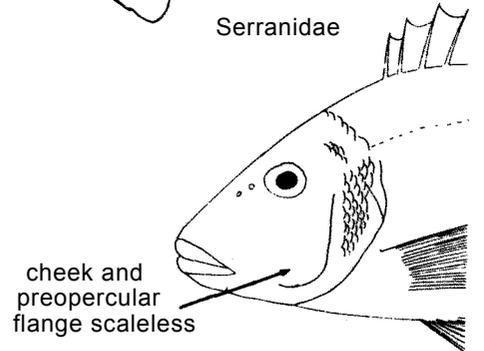
Kyphosidae



Serranidae



Cheilodactylidae



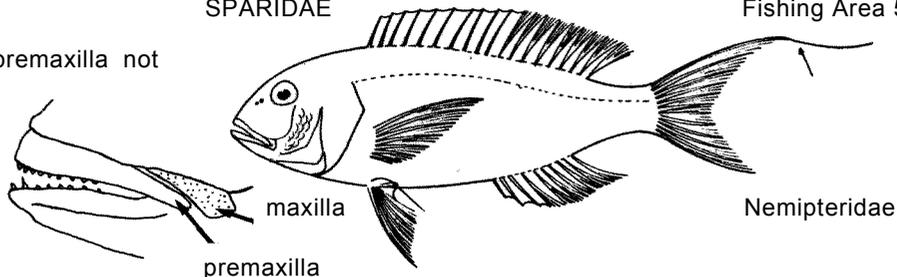
Lethrinidae (Lethrinus)

Fao Sheets

SPARIDAE

Fishing Area 51

Nemipteridae: hind tip of premaxilla not overlapping maxilla.



KEY TO GENERA OCCURRING IN THE AREA:

1a. Molar or granular teeth present

2a. A distinct separate group of 4 to 9 enlarged teeth in front of each jaw

3a. Head between eyes naked (scales ending at or behind level of vertical eye diameter (Figs 2 to 4)

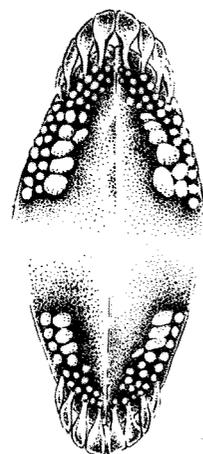
4a. More than 6 enlarged incisi-form teeth in front of jaws (Fig.1) Diplodus

4b. 4 to 6 more or less compressed, enlarged teeth in front of jaws (Figs 2,4)

5a. More than 5 scales between lateral line and 4th dorsal spine; usually dorsal spines slender, riot appearing alternately broad and narrow on each side; one enlarged molar posteriorly on each jaw (Fig.2)

6a. Enlarged front teeth subequal (Fig.2) Rhabdosargus

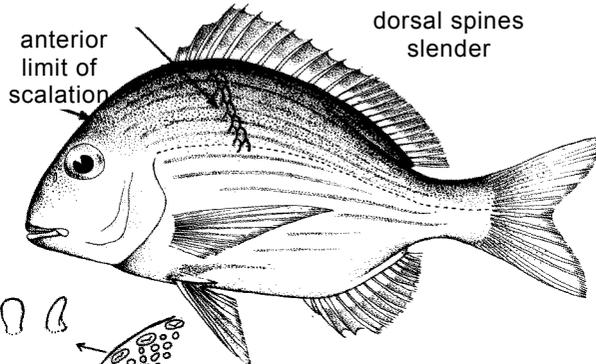
6b. Middle pair of teeth very large (Fig.3) Sparodon



upper and lower jaws

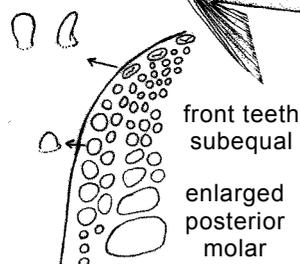
Diplodus Fig.1

more than 5 rows of scales



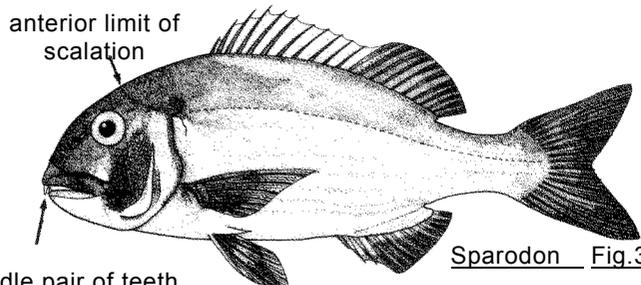
dorsal spines slender

Rhabdosargus Fig.2



front teeth subequal
enlarged posterior molar

right half of roof of mouth



middle pair of teeth very large

Sparodon Fig.3

5b. Less than 5 scales between lateral line and 4th dorsal spine; dorsal spines strong, appearing alternately broad and narrow on each side; no single, greatly enlarged molar posteriorly (Fig.4) ... Acanthopagrus

3b. Head between eyes scaly (scaling reaching beyond level of vertical diameter of eye) (Figs 6 to 9)

7a. Preopercle flange naked; first two dorsal spines very short, with the following (at least the 3rd) elongate, flattened, filamentous in juveniles (Fig-5) Argyrops

7b. Preopercle flange entirely or partly scaly; dorsal spines normally graduated, not filamentous (except Chrysoblephus lophus) (Figs 6 to 9)

8a. 13 dorsal spines; over 70 scales in lateral line (Fig.6) Porcostoma

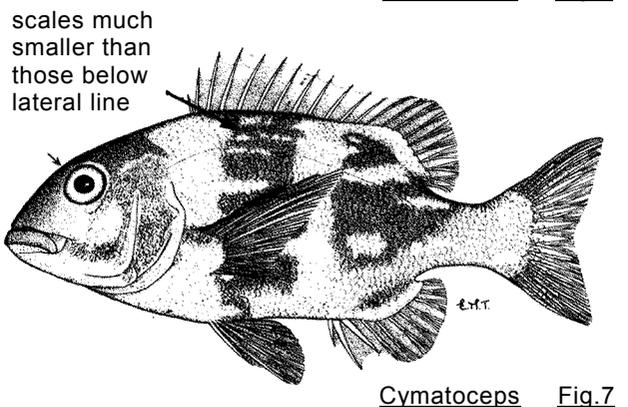
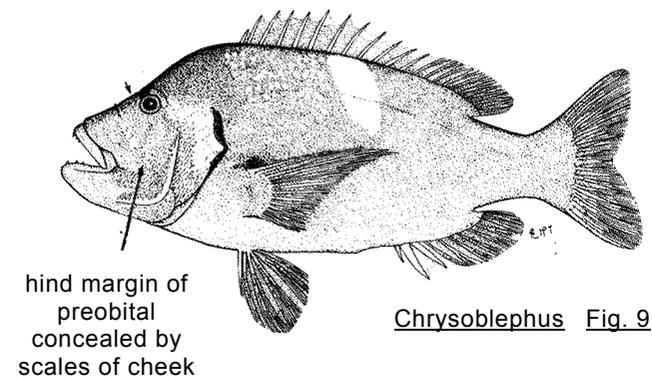
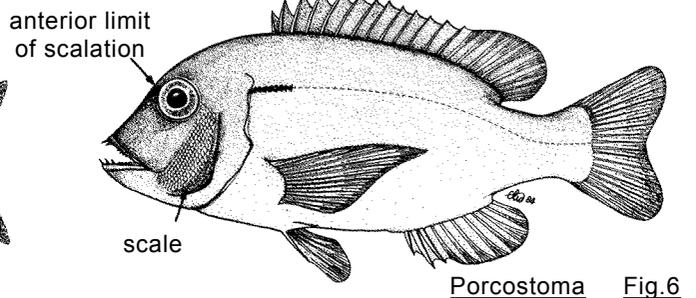
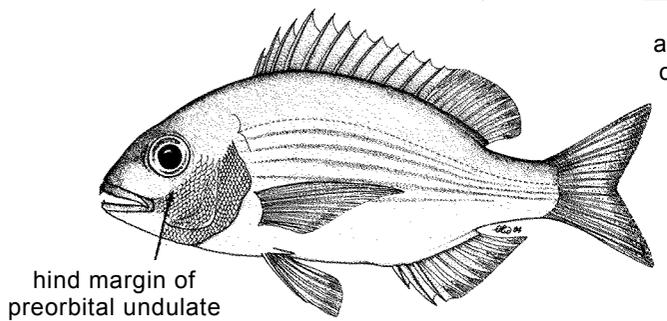
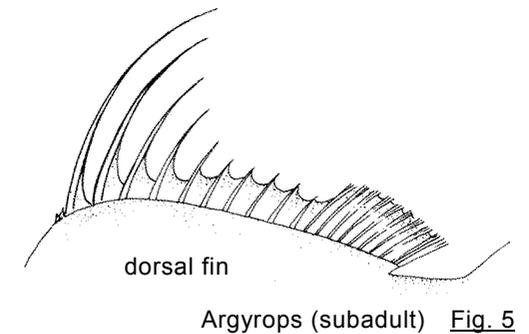
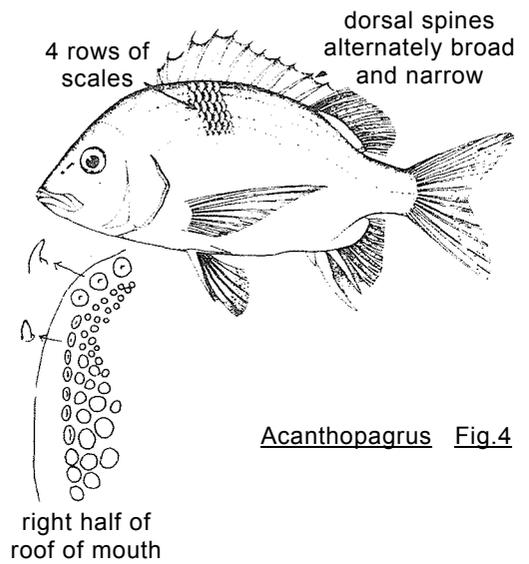
8b. 12 or fewer dorsal spines; less than 70 scales in lateral line

9a. Scales above lateral line much smaller than those below (Fig.7). Cymatoceps

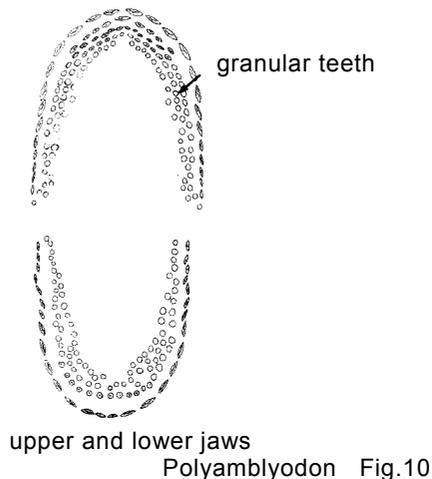
9b. Scales above lateral line about equal to those below

10a. Hind margin of preorbital bone undulate, and free, not concealed by scales of cheek (Fig. 8) Pterogymnus

10b. Hind margin of preorbital not undulate, concealed by scales of cheek (Fig.9) Chrysoblephus

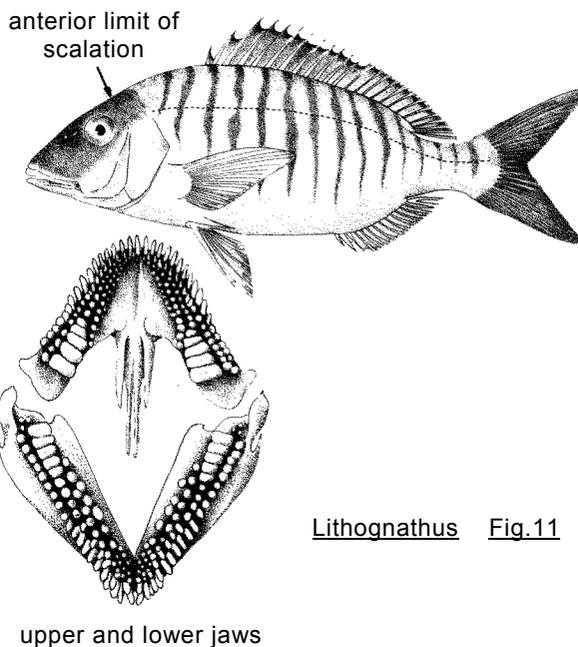


- 2b. No enlarged teeth at front of each jaw (Figs 10 to 12)
- 11a. One outer series of incisors, behind them a pavement of granular teeth (Fig.10) Polyamblyodon
- 11b. Teeth not as above (Figs 11 and 12)
- 12a. Head between eyes naked (scales not extending beyond level of posterior eye margin); dorsal fin with 11 (exceptionally 12); spines and 11 to 12 rays (Fig.11) Lithognathus
- 12b. Head between eyes scaly (scales reaching to beyond the level of vertical eye diameter); dorsal fin with 12 spines and 10 rays (Fig.12) Pagellus



1b. Molariform teeth absent

- 13a. Outer teeth incisiform, compressed (Fig.13)
- 14a. A single series of teeth in each jaw; notched incisors in upper jaw (Fig.13a) Sarpa
- 14b. 2 or more series of teeth in each jaw



- 15a. Outer series of incisors with edge crenulate (Fig.13b)... Crenidens
- 15b. Outer series of incisors with edge entire

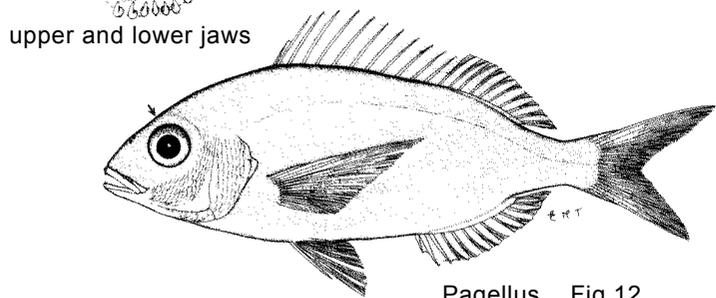
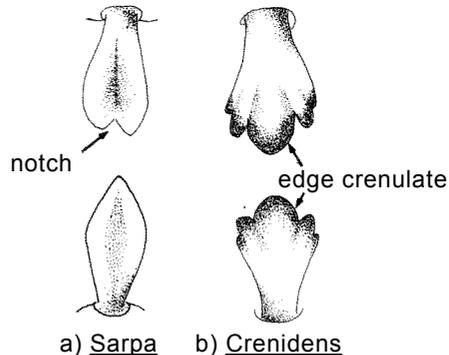
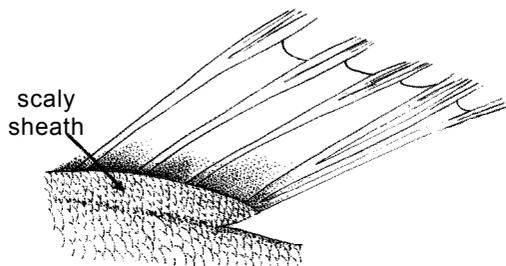
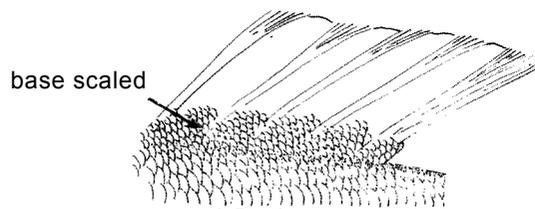
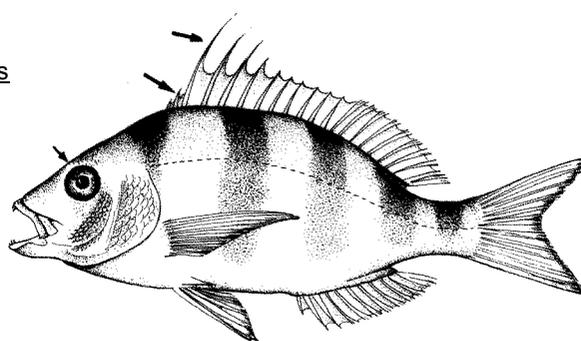


Fig.13

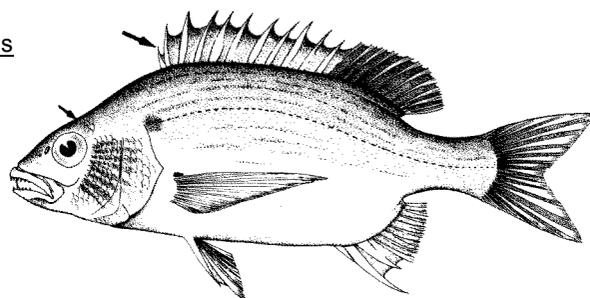
- 16a. Soft dorsal and anal fins scaly at base, without sheath (Fig.14a) Pachymetopon
- 16b. Soft dorsal and anal fins with a low scaly sheath at base (Fig.14b) Spondyliosoma
- 13b. Outer teeth canines, some enlarged in front of jaws
 - 17a. First two dorsal spines short, 3rd and 7th elongated, filamentous (especially in juveniles and subadults) (Fig.15) Cheimerius
 - 17b. Dorsal spines normally graduated, not filamentous (Figs 16 to 19)
 - 18a. Scales on head not reaching forward to level of vertical diameter of eye (Fig.16) Sparidentex
 - 18b. Scales on head reaching forward to beyond vertical diameter of eye (Figs 16 to 19)
 - 19a. Gillrakers short, laminate, few (less than 10 inferior on first arch) (Fig.17) Petrus
 - 19b. Gillrakers more or less elongate, numerous (more than 10 inferior on first arch) (Fig.19)
 - 20a. Head length less than body depth; pectoral fins long and about equal to head length and reaching to beyond anal spines (Fig.18) gillrakers 11 to 16 inferior on first arch Polysteganus



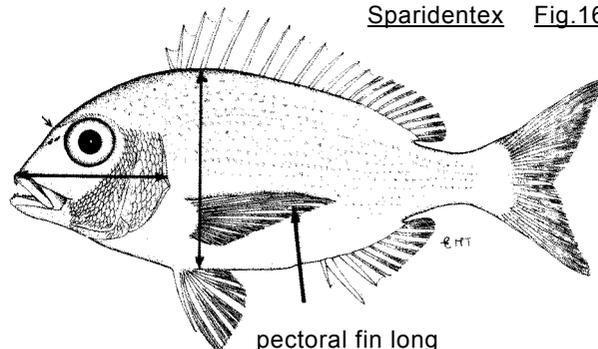
posterior part of dorsal fin Fig.14



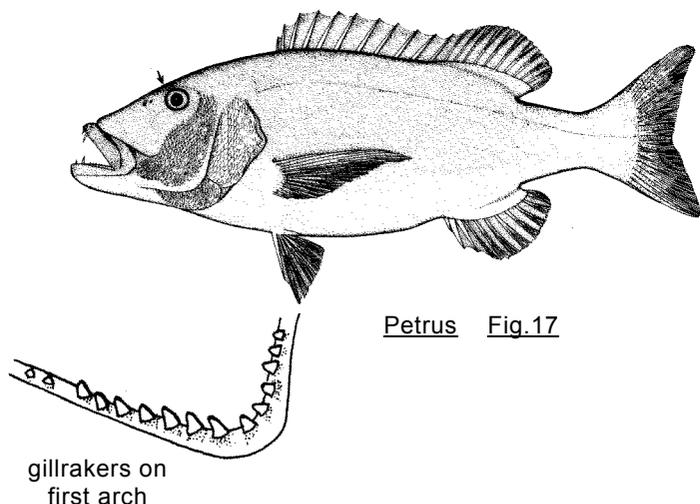
Cheimerius Fig.15



Sparidentex Fig.16



Polysteganus Fig.18



Petrus Fig.17

gillrakers on first arch