

BONY FISHES

XIPHIIDAE

Xiphias gladius Linnaeus, 1758

Synonyms : Xiphias estara Phillipps, 1932
Xiphias gladius estara: Whitley, 1968

Loc. names : Ghorī (Sin); Asp (Bal)
Broadbill swordfish (En)

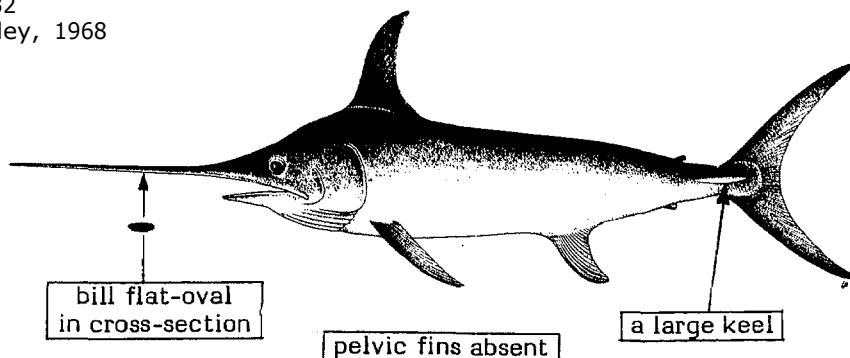
FAO names : En - Swordfish
Fr - Espadon
Sp - Pez espada

Size : Max.: 444 cm (total length); common to 300 cm

Fishing gear : Caught with longlines

Habitat and biology : Epipelagic, oceanic, sometimes in coastal waters. Highly migratory, does not form schools. Found above the thermocline but also to depths of 800 m. Feeds mainly on schooling fishes, crustaceans and cephalopods

Interest to fisheries : The flesh of this species is oily and tasty and appreciated worldwide. The catches of swordfish in Pakistan totalled 200 t in 1983 (see FAO Yearbook of Fishery Statistics, 1983)



STROMATEIDAE

mouth small,
maxilla immobile

Loc. names : Achopitho, Sufaid-poplet (Sin);
Tighlum, Pithoo, Wanag, etc. (Bal)

FAO names: En - Silver pomfrets
Fr - Ailerons
Sp - Palometones

Size : Max.: 60 cm; most common between 20 and 30 cm

membranes united
to isthmus

no pelvic fins

Fishing gear : Taken with bottom trawls, occasionally with driftnets and bottom gillnets. Main fishing, seasons are January, February, May and September to December along the Baluchistan coast

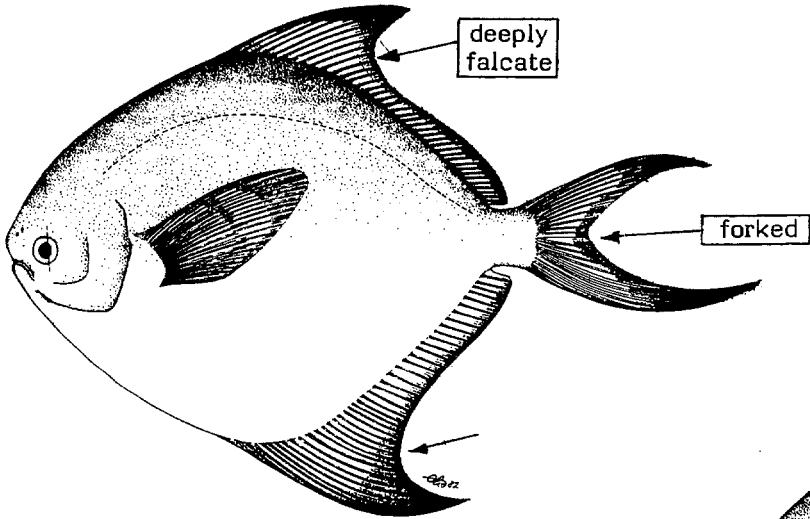
Habitat and biology : Camposus argenteus is found in coastal waters from 5 to 100 m depth and it is usually associated with prawns, species of Nemipterus and Leiognathus. Pampus chinensis is found in shallow waters, sometimes in estuaries. They both feed on ctenophores, salps, medusae, etc. Sexually ripe specimens of P. argenteus found in July and October along the Baluchistan coast

Interest to fisheries : The Handbook of Fisheries Statistics of Pakistan (1973-83) reports annual catches of Pampus argenteus ranging from 2 694 t (1980) to 6 276 t (1979) with an average of 4 195 t. However, these figures probably also include P. chinensis, as well as the black pomfret, Parastromateus niger. Highly desirable fish, marketed fresh

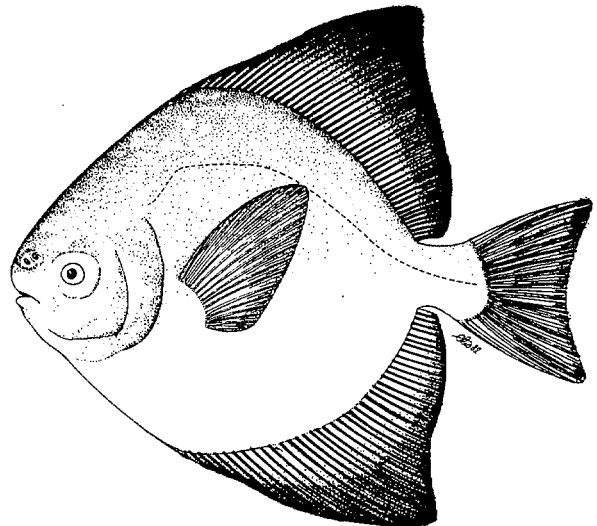
BONY FISHES

Species of **Stromateidae**

STROMATEIDAE



Pampus argenteus (Euphrasen, 1788)
 Silver pomfret
 Achopito, Sufaid poplet (Sin)
 Tighul, Pithoo (Bal)
 size: to 60 cm



Pampus chinensis (Euphrasen, 1788)
 Chinese silver pomfret
 Achopito, Sufaid-poplet (Sin)
 Marz (Jiwani area), Wanag (Bal)
 size: to 60 cm

Psenes squamiceps (Lloyd, 1909)

Synonyms Cubiceps natalensis Gilchrist & von Bonde, 1923
Cubiceps squamiceps (Lloyd, 1909)
Mulichthys squamiceps Lloyd, 1909

Loc. names

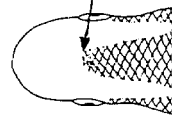
FAO names : En - Indian driftfish
 Fr - Dérivant indien
 Sp - Savorin indio

Size : Max.: 18 cm; common to 14 cm

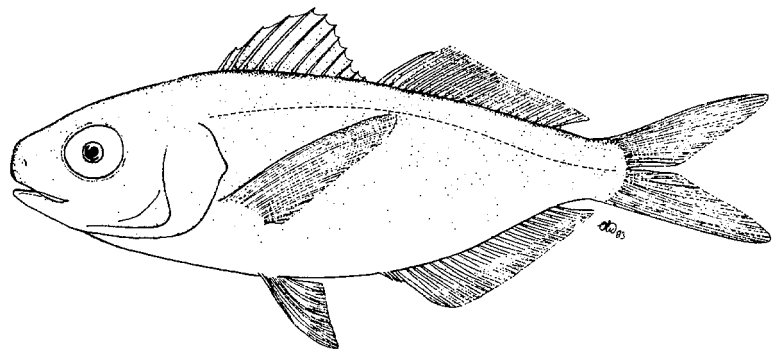
Fishing gear : Not exploited in Pakistan at present

Habitat and biology : Pelagic or near the bottom, from the edge of the continental shelf to about 450 m depth

scales not reaching to past level of eyes



NOMEIDAE



lobes folded over one another

BONY FISHES

ARIOMMIDAE

Ariomma indica (Day, 1870)

Synonyms Psenes indicus Day, 1870
Psenes africanus Gilchrist & von Bonde, 1923
Psenes extraneus Herre, 1950
Cubiceps dollfusi Chabanaud, 1930

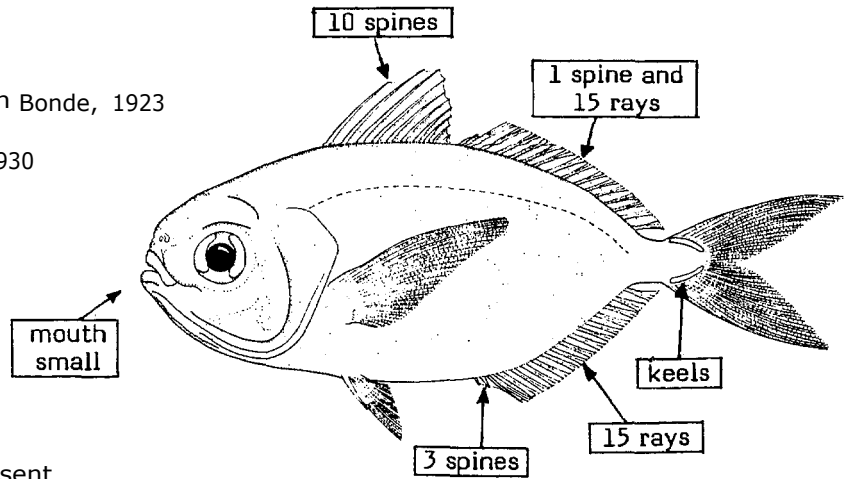
Loc. names : Katni (Sin); Katni (Bal)
 Driftfish (English)

FAO names : En - Indian ariomma
 Fr - Ariomme indienne
 Sp - Arioma indica

Size : Max.: 25 cm; common to 18 cm

Fishing gear : Not exploited in Pakistan at present

Habitat and biology : Found from 20 to 300 m depth, demersal during the day, pelagic at night. Often associated with species of Saurida, Gerres, Trichiurus, Decapterus, Nemipterus and Lutjanus. Feeds mostly on zooplankton



Psettodes erumei (Schneider, 1801)

PLATE XXIII, 133

PSETTODIDAE

Synonyms : None

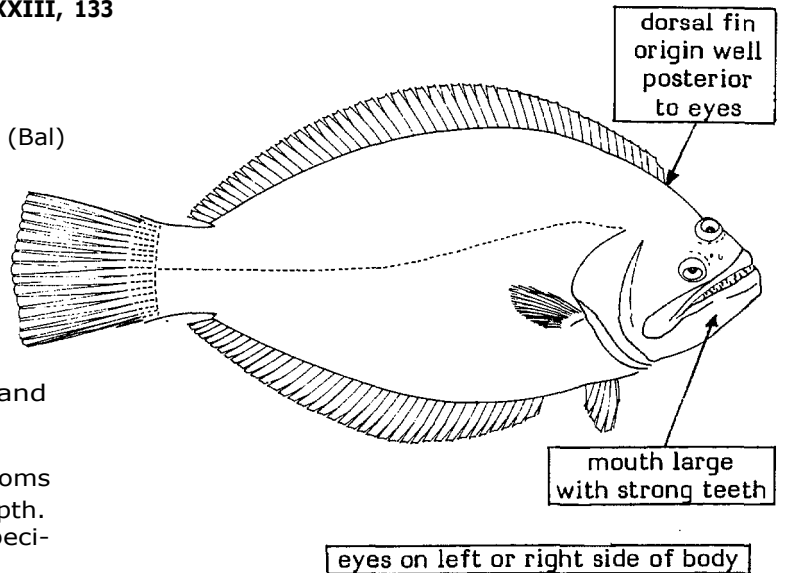
Loc. names : Hajam (Sin); Dandani swaso, Kochuk (Bal)
 Indian halibut, Turbot (English)

FAO names : En - Indian spiny turbot
 Fr - Turbot épineux indien
 Sp - Lenguado espinudo indio

Size : Max.: 60 cm; common to 40 cm

Fishing gear : Caught mainly in bottom trawls and bottom gillnets

Habitat and biology : Lives on sandy muddy bottoms of the continental shelf, down to about 100 m depth. Feeds on bottom-living animals. Sexually ripe specimens found in July along the Baluchistan coast



Interest to fisheries : This species is rather common and very often caught, although never in very large quantities. The main fishing season is from July to November along the Baluchistan coast. Marketed fresh, an excellent foodfish

BOTHIDAE

Loc. names : Kuker-jeeb (Sin);
 Buti, Swaso (Bal)

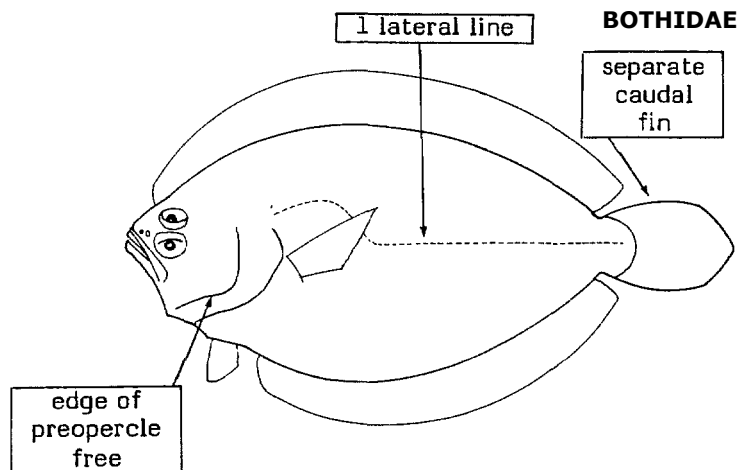
FAO names : En - Lefteye flounders
 Fr - Rombous
 Sp - Lenguados

Size : Some species may reach 40 cm, ba usually less than 25 cm

Fishing gear : Caught mainly in bottom trawls

Habitat and biology : Bottom-dwelling, usually burrowing in sand or mud bottoms of the continental shelf. They are able to rapidly change their colour pattern in order to match the background. In some species there is a strong sexual dimorphism in length of rays, colour pattern, etc.

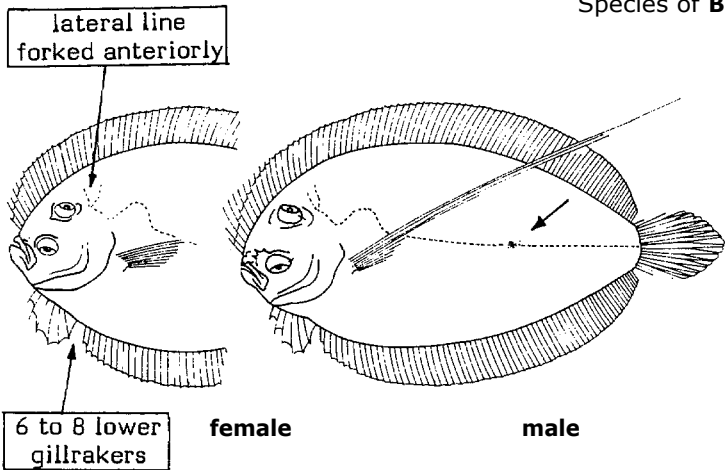
Interest to fisheries : Although never caught in large quantities, some species are often present in the catches. The flesh is of good quality but most species are quite small in size



BONY FISHES

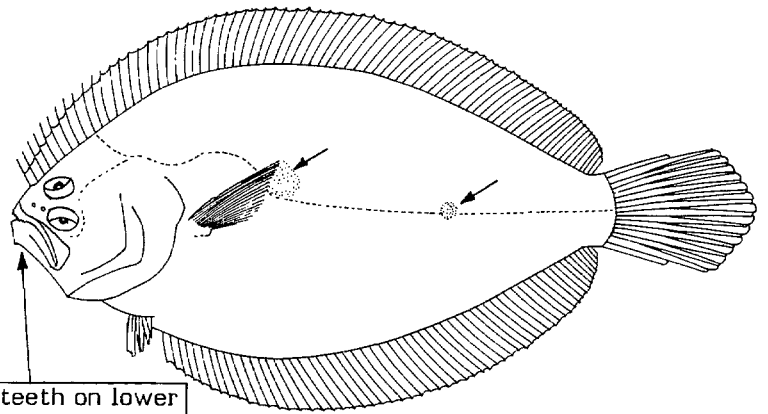
Species of **Bothidae**

BOTHIDAE

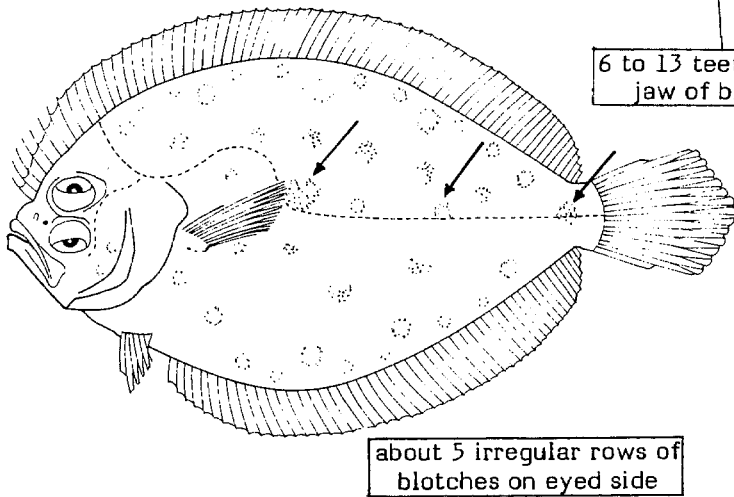


Bothus pantherinus (Rüppell, 1828)
Leopard flounder
size: to 25 cm

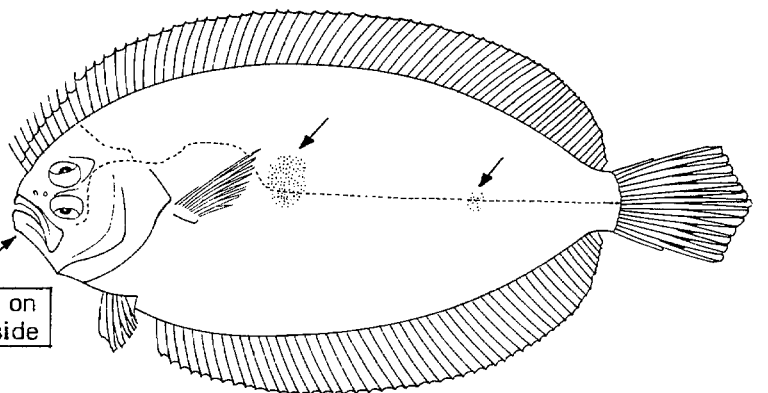
PLATE XXIII, 135



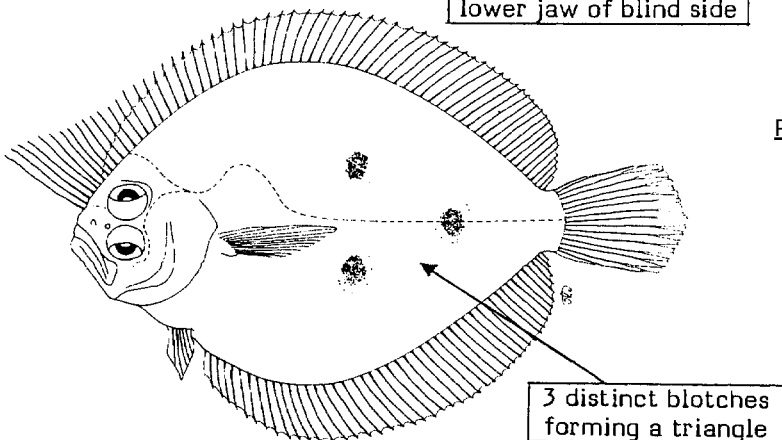
Pseudorhombus arsius (Hamilton, 1822)
Largetooth flounder
size: to 35 cm



Pseudorhombus elevatus Ogilby, 1912
Deep flounder
size: to 20 cm



Pseudorhombus javanicus (Bleeker, 1853)
Java flounder
size: to 35 cm



Pseudorhombus triocellatus (Schneider, 1801)
Three-spotted flounder
size: to 15 cm

BONY FISHES

SOLEIDAE

Loc. names : Phani, Bans-patta (Sin)
Buti, Swaso (Bal)

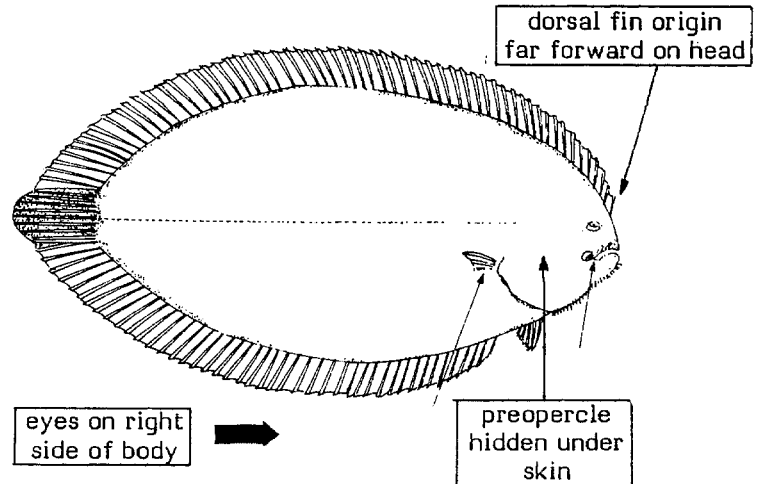
FAO names : En - Soles
Fr - Soles
Sp - Linguados

Size : Some species may reach a maximum size of 30 cm but the common size is around 15 to 20 cm

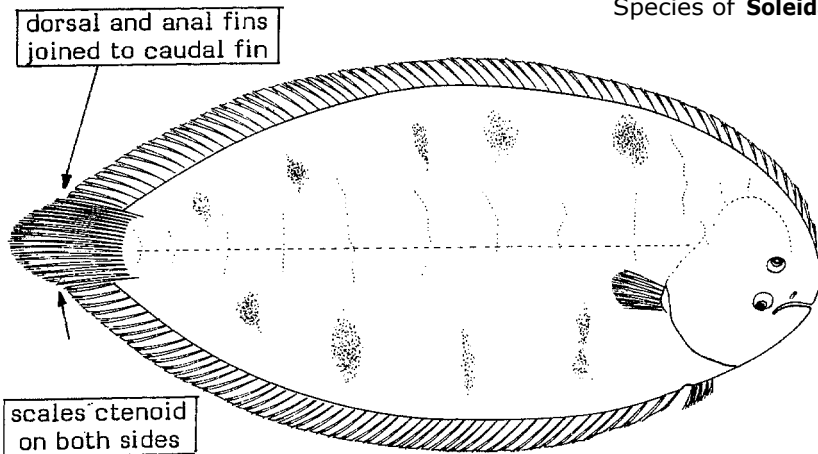
Fishing gear : Caught in bottom trawls and shore seines

Habitat and biology : Found in shallow coastal waters, over sandy and muddy bottoms. Feed on bottom-living invertebrates. Capable of changing colour pattern to adapt to the background

Interest to fisheries : Although quite common in the catches, due to their small size and relatively low abundance, soles are of low commercial value

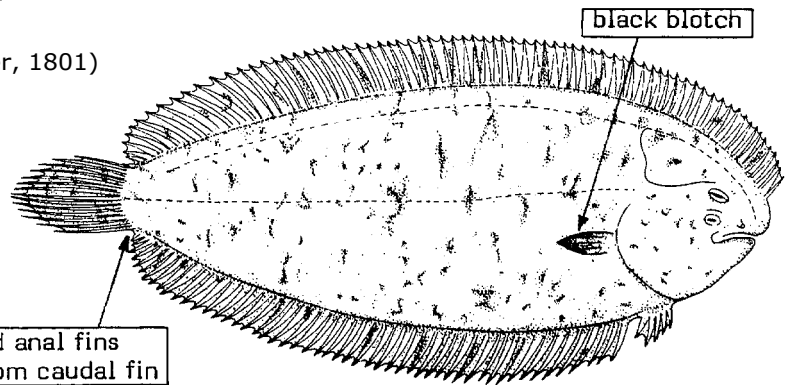


Species of **Soleidae**

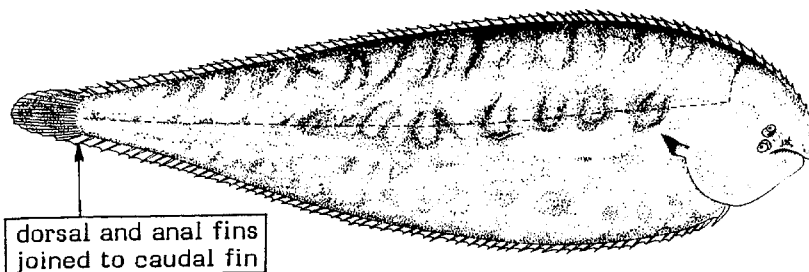


Euryglossa orientalis (Bloch & Schneider, 1801)
Oriental sole
size: to 24 cm

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Solea elongata Day, 1877
Elongate sole
size: to 30 cm

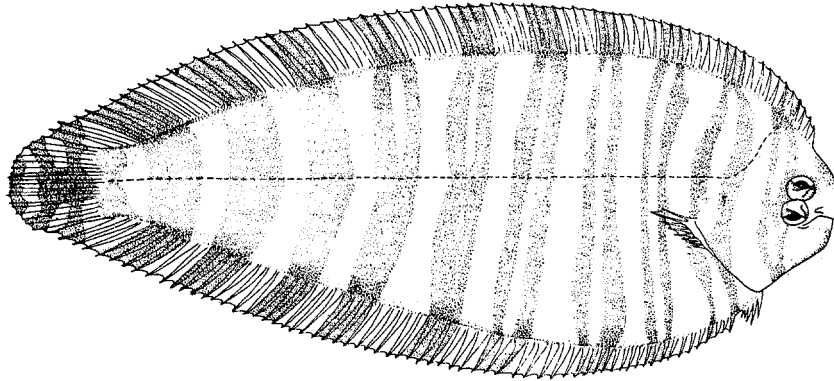


Synaptura commersoniana (Lacepède, 1802)
Commerson's sole
size: to 32 cm

BONY FISHES

Species of **Soleidae**

SOLEIDAE



10 or 11 dark bars
(some with paler interspaces)

Zebrias quagga Kaup, 1858
Fringefin sebra sole
size: to 15 cm

CYNOGLOSSIDAE

pectoral fins absent

Loc. names : Sole (Sin)
Muna swasoo (Bal)

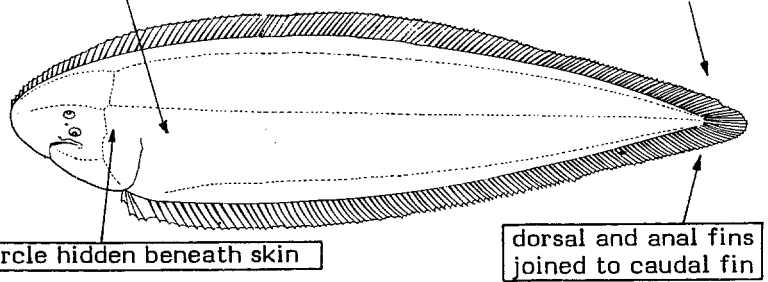
FAO names : En - Tonguesoles
Fr- Langues
Sp - Lenguas

Size : Max.: to 50 cm

Fishing gear : Caught mainly in bottom trawls

Habitat and biology : On muddy bottoms of the continental shelf including estuaries, but some species down to 400 m depth. Feed predominantly on bottom-living invertebrates

Interest to fisheries : Excellent foodfishes. The Handbook of Fisheries Statistics of Pakistan (1973-83) reports annual catches of Cynoglossus species ranging from 427 t (1980) to 2 474 t (1973) with an average of 996 t. These figures, however, also include landings of turbot (Psettdodes), Bothidae and Soleidae



preopercle hidden beneath skin

dorsal and anal fins joined to caudal fin

Cynoglossus arel (Schneider, 1801)

Synonyms : Cynoglossus macrolepidotus (Bleeker, 1801)

Loc. names : Sole (Sin); Munsa swasoo (Bal)
Brown tonguesole (English)

FAO names : En - Largescale tonguesole
Fr - Langue à grandes écailles
Sp - Lengua escamuda

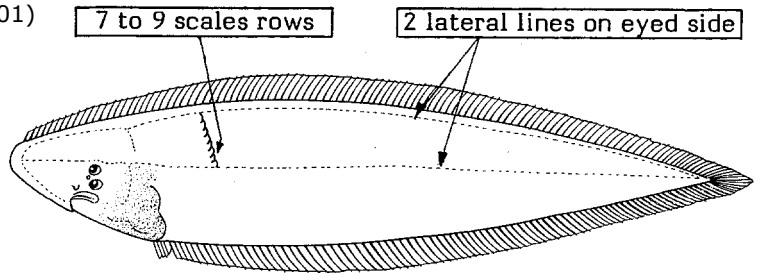
Size : Max.: 38 cm; common to 30 cm

Fishing gear : Caught mainly in bottom trawls

Habitat and biology : Inhabits sandy and muddy bottoms of the continental shelf. Feeds predominantly on bottom-living invertebrates

7 to 9 scales rows

2 lateral lines on eyed side



no lateral line on blind side

BONY FISHES

CYNOGLOSSIDAE

Cynoglossus bilineatus (Lacepède, 1802)

Synonyms : Cynoglossus quadrilineata (Bleeker, 1851)

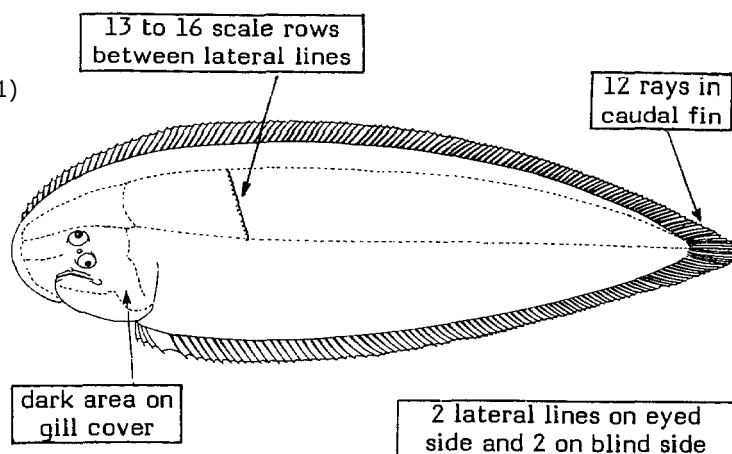
Loc. names : Sole (Sin); Munsa swasoo (Bal)
Fourlined tonguesole (English)

FAO names En - Fourlined tonguesole
Fr - Langue à quatre lignes
Sp - Lengua de cuatro lineas

Size: Max.: 35 cm; common to 30 cm

Fishing gear : Caught in bottom trawls

Habitat and biology : Inhabits sandy and muddy bottoms of the continental shelf, down to 80 m depth. Feeds predominantly on bottom-living invertebrates



Cynoglossus dispar Day, 1877

Synonyms : None

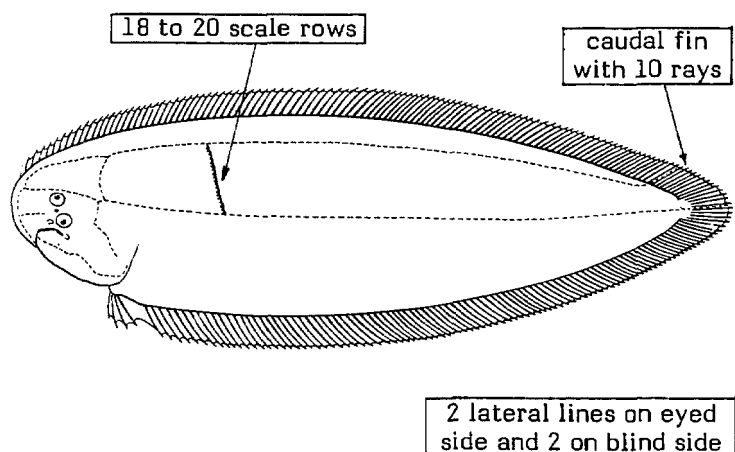
Loc. names : Sole (Sin); Munsa swasoo (Bal)

FAO names : En - Roundhead tonguesole
Fr - Langue à tête ronde
Sp - Lengua roma

Size : Max.: 38 cm; common to 30 cm

Fishing gear : Caught in bottom trawls

Habitat and biology : Inhabits sandy and muddy bottoms of the continental shelf. Feeds predominantly on bottom-living invertebrates



Cynoglossus dubius Day, 1873

Synonyms : None

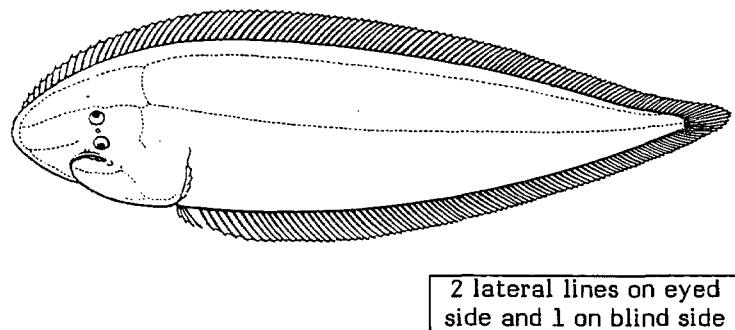
Loc. names : Sole (Sin); Munsa swasoo (Bal)

FAO names : En - Carrot tonguesole
Fr - Langue
Sp - Lengua zanahoria

Size: Max.: 50 cm; common to 30 cm

Fishing gear : Caught in bottom trawls

Habitat and biology : Inhabits sandy and muddy bottoms of the continental shelf. Feeds mainly on bottom-living invertebrates



BONY FISHES

CYNOGLOSSIDAE

Cynoglossus lachneri Menon, 1977

Synonyms : None

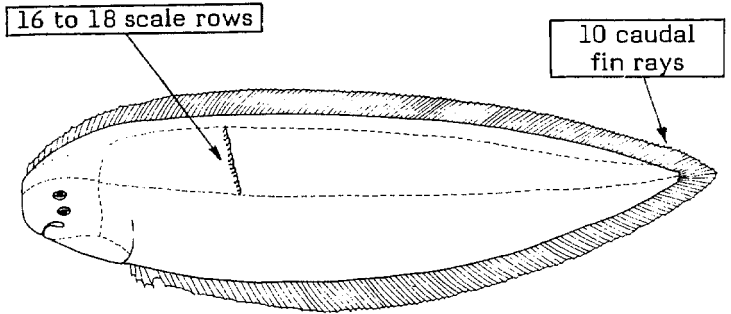
Loc. names: Sole (Sin); Munsa swasoo (Bal)

FAO names : En - Lachner's tonguesole
Fr - Langue de Lachner
Sp - Lengua de Lachner

Size : Max.: 45 cm; common to 30 cm

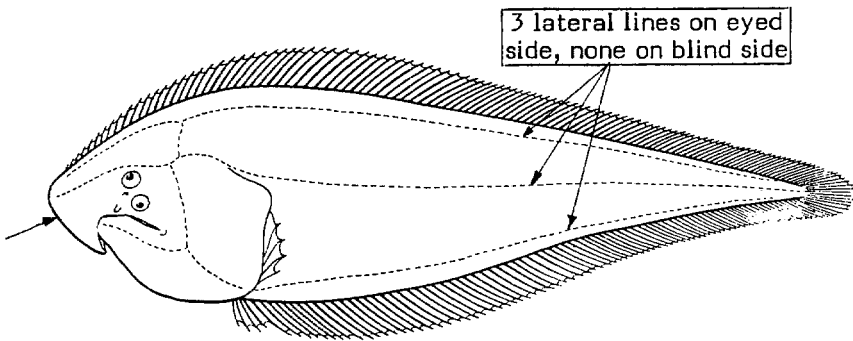
Fishing gear : Caught in bottom trawls

Habitat and biology : Inhabits sandy and muddy bottoms of the continental shelf. Feeds mainly on bottom-living invertebrates

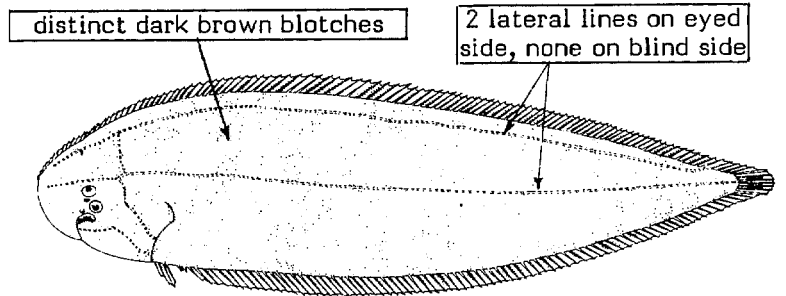


2 lateral lines on eyed side and 2 on blind side

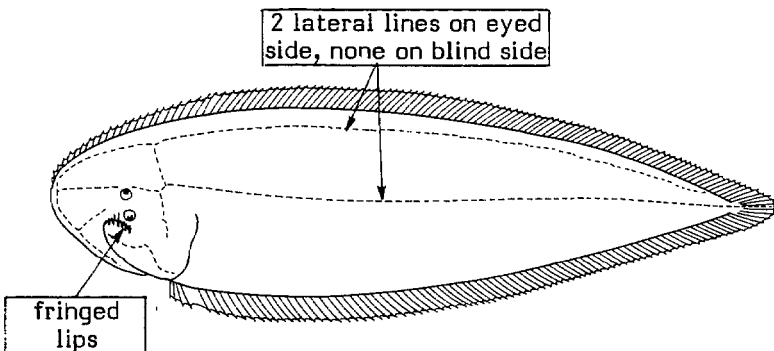
Other species of **Cynoglossidae**



Cynoglossus carpenteri Alcock, 1889
Hooked tonguesole
size: to 23 cm



Cynoglossus puncticeps (Richardson, 1846)
Speckled tonguesole
size: to 18 cm



Paraplaqusia bilineata (Bloch, 1784)
Doublesned tonguesole
size: to 30 cm