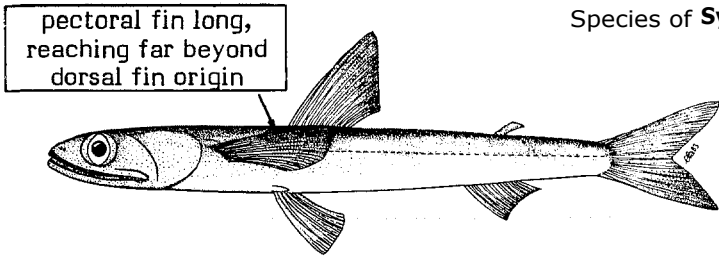


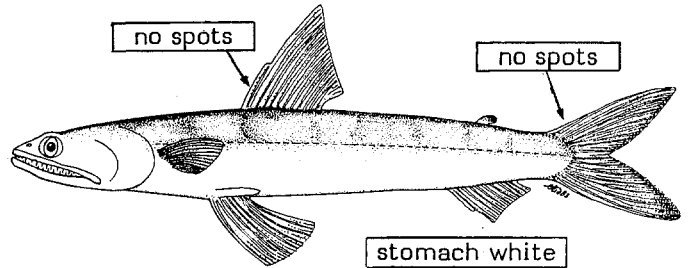
**BONY FISHES**

**SYNODONTIDAE**

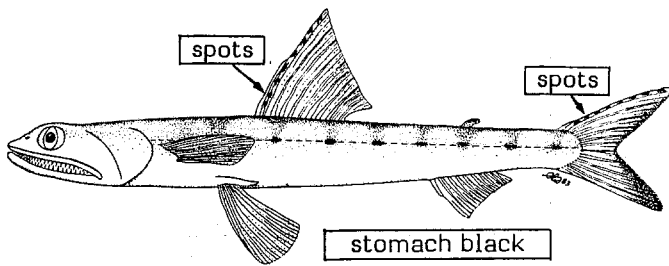
Species of **Synodontidae**



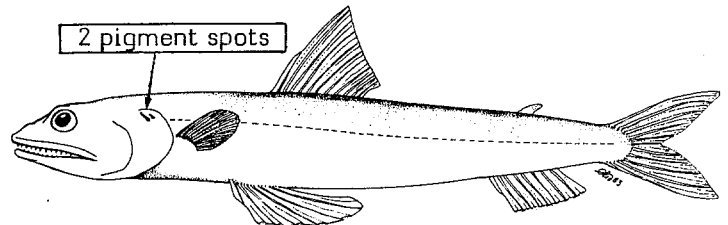
**Saurida longimanus** Norman, 1939  
Longfin lizardfish  
size: to 25 cm



**Saurida tumbil** (Bloch, 1795)  
Greater lizardfish  
size: exceeds 40 cm

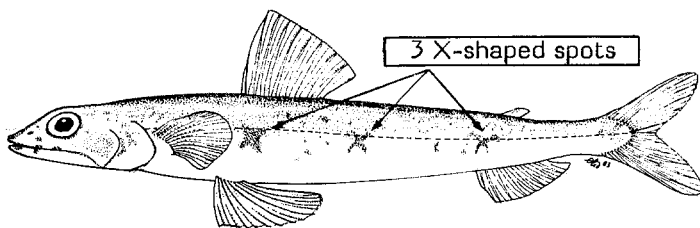


**Saurida undosquamis** (Richardson, 1848)  
Brushtooth lizardfish  
size: to 45 cm or, more

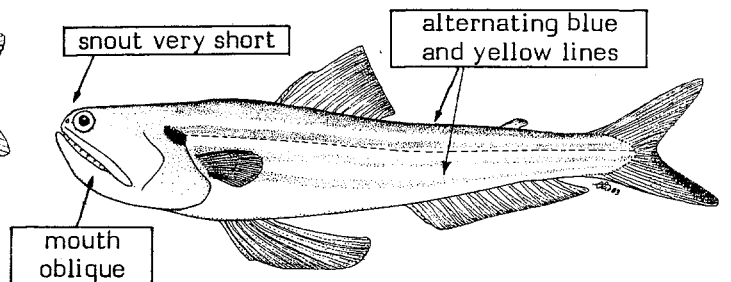


**Synodus indicus** (Day, 1873)  
Indian lizardfish  
size: to 20 cm

**PLATE I, 6**



**Synodus macrops** Tanaka, 1917  
Triplecross lizardfish  
size: to 18 cm



**Trachinocephalus myops** (Forster, 1801)  
Bluntnose lizardfish  
size: to 40 cm

**Harpadon nehereus** (Hamilton-Buchanan, 1822)

**HARPADONTIDAE**

**Synonyms** None

**Loc. names :** Bombil (Sin); Bombala (Bal)  
Bombay duck (En)

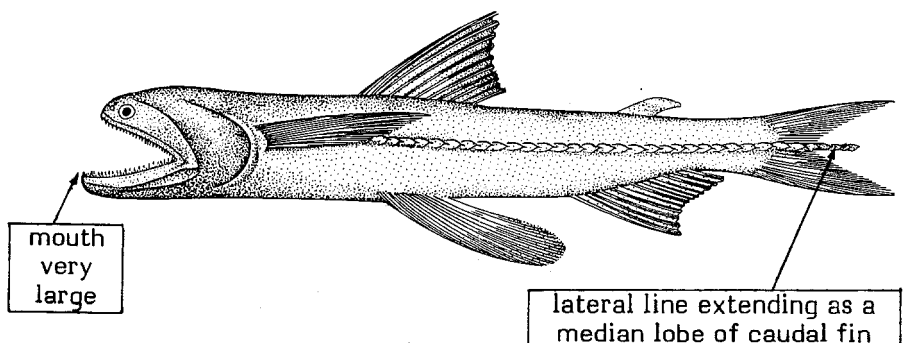
**FAO names :** En - Bombay duck  
Fr - Bumalo  
Sp - Bumalo

**Size :** Max.: 40 cm; common to 25 cm

**Fishing gear :** Caught with bottom trawls

**Habitat and biology :** Inhabits coastal waters and estuaries

**Interest to fisheries :** This species is not as important in Pakistan as in India and no separate statistics are reported from this country in the Handbook of Fisheries Statistics of Pakistan. It is usually marketed dried-salted



**BONY FISHES**

**BREGMACEROTIDAE**

Bregmaceros macclellandi Thompson, 1840

**Synonyms** None

**Loc. names :** Mac Lelland's Unicorn-codfish (En)

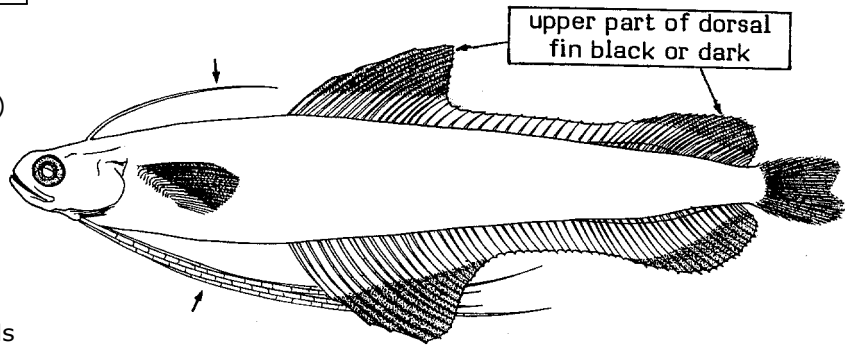
**FAO names :** En - Spotted codlet  
Fr - Varlet de l'Océan Indien  
Sp - Bregmacero manchado

**Size :** Max.: 10 cm; common to 7 cm

**Fishing gear :** Caught with bagnets and trawls

**Habitat and biology :** Over the continental shelf but possibly also oceanic, sometimes found in estuaries. Feeds mainly on planktonic crustaceans

**Interest to fisheries :** No special fishery for this species which is only accidentally caught



**EXOCOETIDAE**

**Loc. names :** Thuri (Sin); Jirri (Bal)

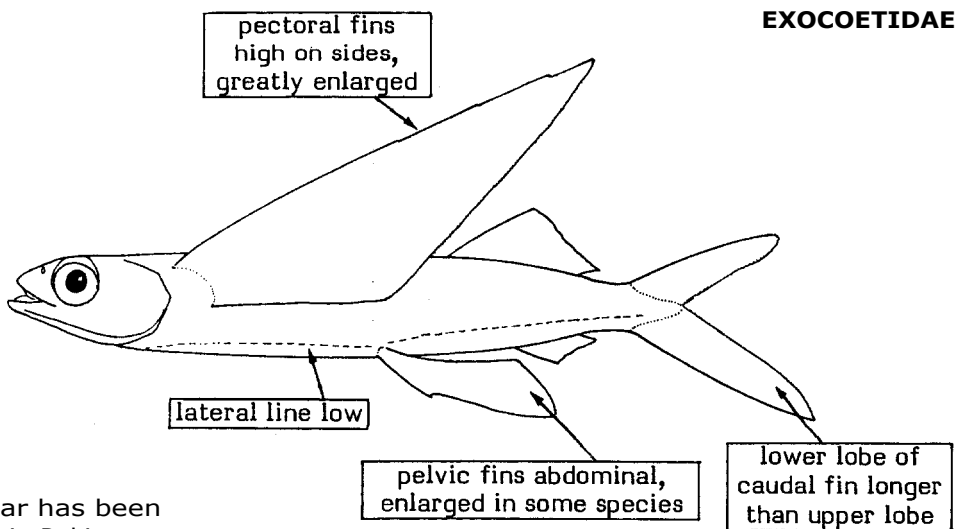
**FAO names :** En - Flyingfishes  
Fr - Exocoets  
Sp - Voladores

**Size :** Some species reach to 25 cm

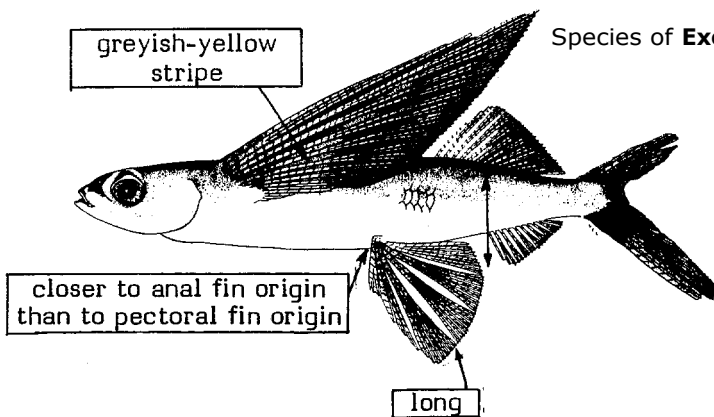
**Fishing gear :** No special fishing gear has been developed for these particular fishes in Pakistan

**Habitat and biology :** Species of this family inhabit surface waters of open oceans. They are well known for leaping out of the water and gliding over a long distance with open pectoral and sometimes pelvic fins. Young (up to 10 cm) are quite different from adults, with different shape of fins and often with conspicuous barbels at chin

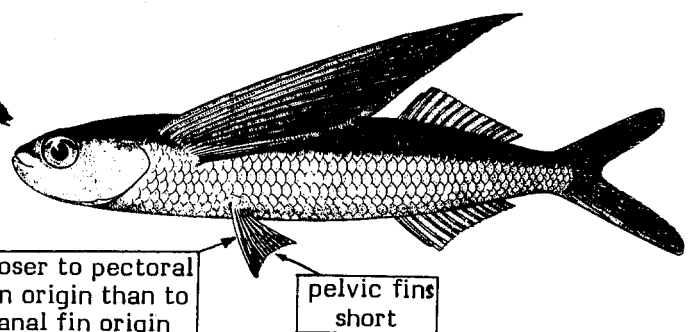
**Interest to fisheries :** An important fisheries for flying fishes has developed in India but they are not known of being of commercial value in Pakistan where they are not yet exploited. The flesh is said to be of excellent quality



Species of **Exocoetidae**



Cheilopogon nigricans (Bennett, 1840)  
African flyingfish  
size: to 24 cm

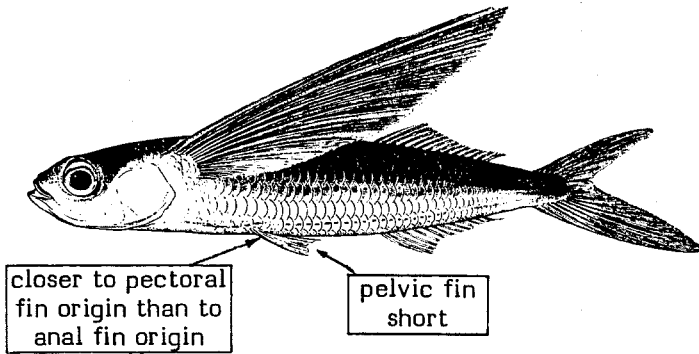


Exocoetus monocirrus Richardson, 1846  
Barbel flyingfish  
size: to 20 cm

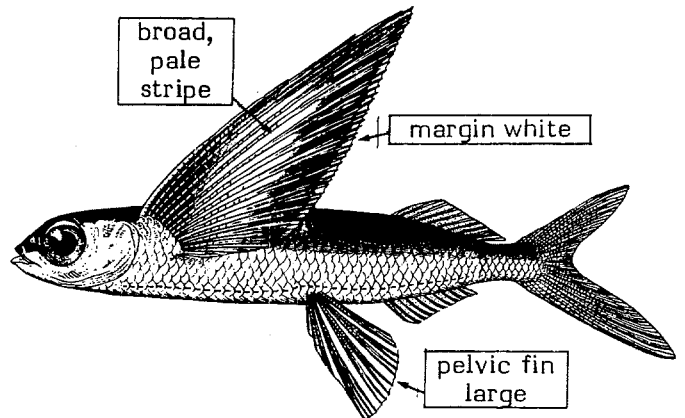
**BONY FISHES**

Species of **Exocoetidae**

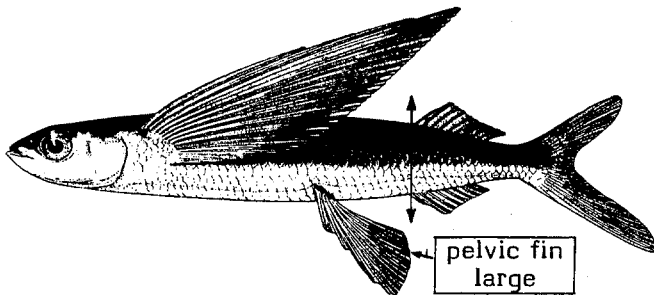
**EXOCOETIDAE**



Exocoetus volitans (Linnaeus, 1758)  
Tropical two-wing flyingfish  
size: to 18 cm



Hirundichthys coromandelensis (Hornell, 1923)  
Coromandel flyingfish  
size: to 19 cm



Hirundichthys oxycephalus (Bleeker, 1852)  
Bony flyingfish  
size: to 20 cm

**HEMIRAMPHIDAE**

**Loc. names :** Thute (Sin); Murrant (Bal)

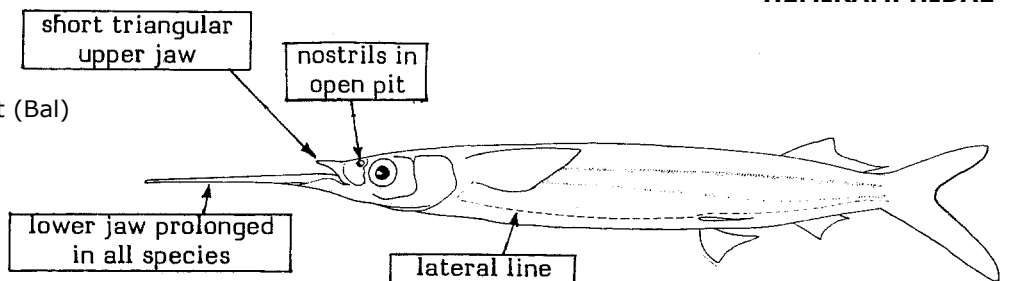
**FAO names :** En - Halfbeaks  
Fr - Demi-becs  
Sp - Agujetas

**Size :** Max.: to 20 cm

**Fishing gear :** Caught with seines, pelagic trawls, and dipnets

**Habitat and biology :** Mainly marine, but some species are found in brackish as well as fresh waters. They are epipelagic, sometimes leaping out of the water and gliding on the surface by vibrating the lower lobe of caudal fin. They are omnivorous, feeding on floating sea grass, crustaceans and small fishes

**Interest to fisheries :** These species are not of great commercial value but they are regularly found in local markets. The flesh is said to be of excellent quality

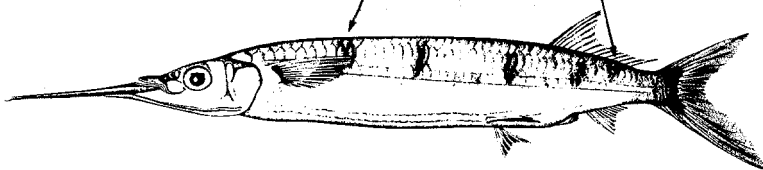


**BONY FISHES**

Species of **Hemiramphidae**

**HEMIRAMPHIDAE**

4 to 6 prominent elongated blotches



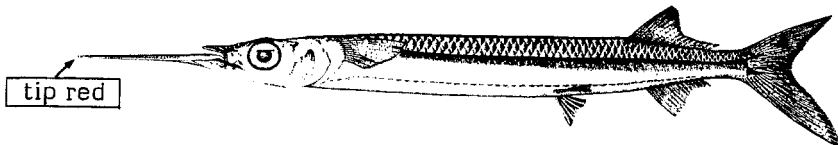
Hemiramphus far (Forsskål, 1775)

Blackbarred halfbeak

size: to 44 cm

**PLATE II, 7**

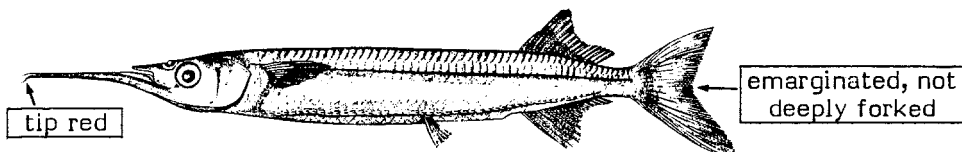
tip red



Hyporhamphus (Reporhamphus) dussumieri (Valenciennes, 1846)

Dussumier's halfbeak

size: to 30 cm



Hyporhamphus (Hyporhamphus) limbatus (Valenciennes, 1846)

Congaturi halfbeak

size: to 22 cm

**BELONIDAE**

**Loc. names :** Kango, Kungi (Sin);  
Aabre (Bal)

**FAO names :** En - Needlefishes  
Fr - Aiguillettes  
Sp - Agujones

**Size :** May attain a very large size (to 200 cm)

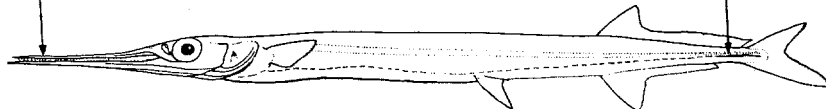
**Fishing gear :** Caught with lines and by trolling

**Habitat and biology :** They occur in marine as well as brackish and fresh waters. They are pelagic and able to leap out of the water and skitter on the surface. They feed mainly on small fishes

**Interest to fisheries :** Most species are found frequently in markets. The flesh is said to be excellent but some people have misgivings about consuming this fish because of the green colour of the bones

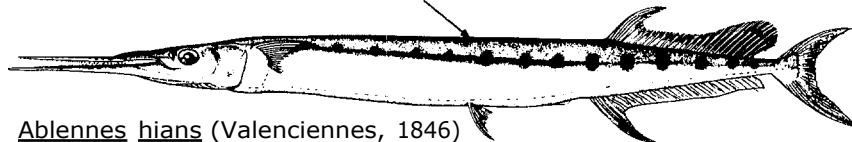
elongate tooth-studded jaw

caudal peduncle keel



12 to 14 prominent dark spots

Species of **Belonidae**



Ablennes hians (Valenciennes, 1846)

Flat needlefish

size: to 120 cm

caudal peduncle strongly depressed, with very large lateral keels



Platybelone argalus platyura (Bennett, 1837)

Keeltail needlefish

size: to 40 cm

17 to 21 rays



Strongylura leiura (Bleeker, 1850)

Banded needlefish

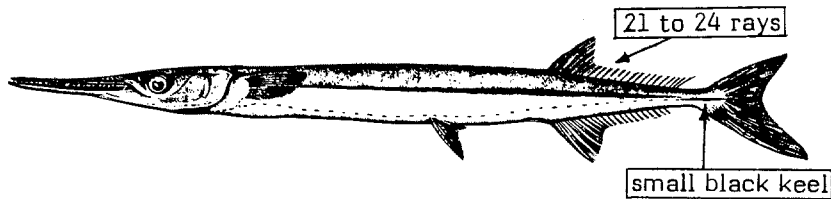
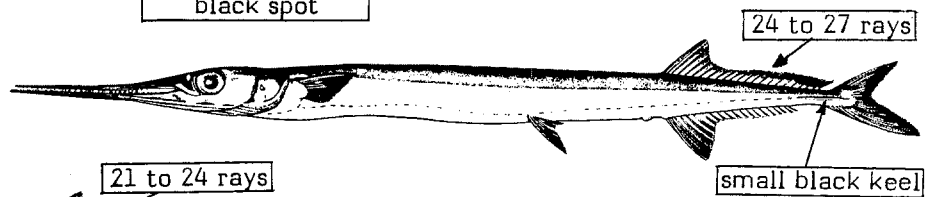
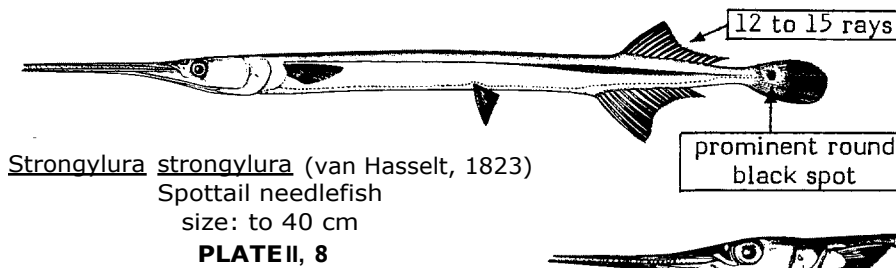
size: to about 80 cm

lateral keel absent

**BONY FISHES**

Species of **Belonidae**

**BELONIDAE**



**HOLOCENTRIDAE**

**Loc. names :** Gilhari (Sin); Koh mitar (Bal)

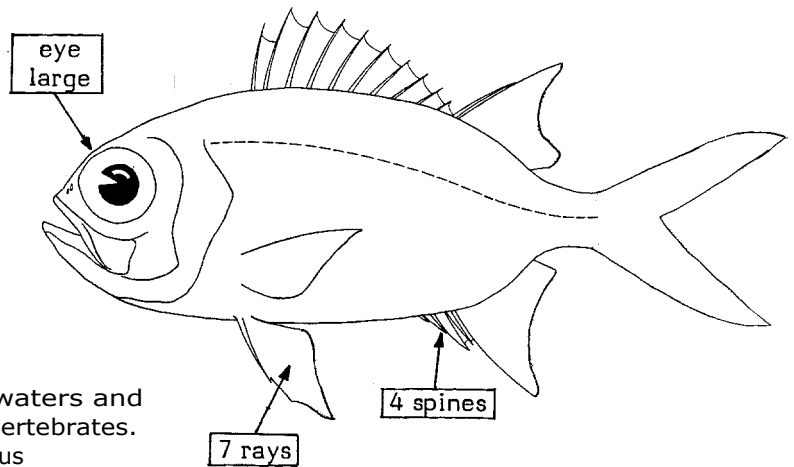
**FAO names :** En - Squirrelfishes, soldierfishes  
Fr - Marignans  
Sp - Candiles

**Size :** Max.: to about 45 cm

**Fishing gear :** Probably taken in gillnets, traps and on hook and line

**Habitat and biology :** Usually found in shallow waters and coral reef areas or on rocky bottoms. Feed on invertebrates. The preopercular spine of Sargocentron is venomous

**Interest to fisheries :** Only occasionally caught in artisanal fisheries



**FISTULARIIDAE**

**Loc. names :** Bangri (Sin); Moorat (Bal)

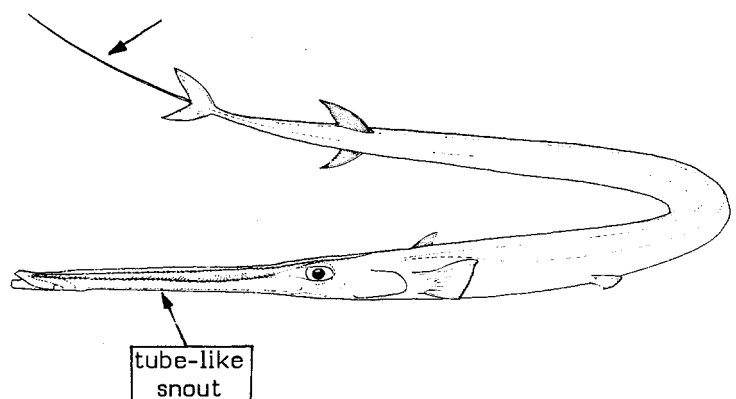
**FAO names :** En - Cornetfishes, Flutemouths  
Fr - Cornettes  
Sp - Cornetas

**Size :** Max.: 200 cm

**Fishing gear :** Occasionally caught in bottom trawls and in artisanal fisheries

**Habitat and biology :** Two species occur: Fistularia petimba generally occurs in deeper waters offshore while F. commersonii usually occurs in shallow inshore waters, often associated with reefs. Feed on small fishes and shrimps

**Interest to fisheries :** Only occasionally caught



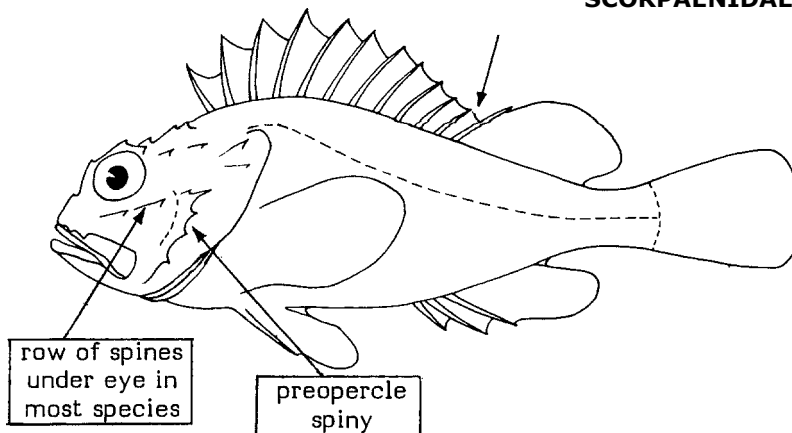
**BONY FISHES**

**SCORPAENIDAE**

**Loc. names** Serin (Sin); Bheel-alari (Bal)  
**FAO names** : En Scorpionfishes, Stingfishes, etc.  
 Fr - Rascasses  
 Sp - Rascacios

**Size** : Max.: to 40 cm

**Fishing gear** : Occasionally caught in bottom trawls



**Habitat and biology** : Mostly found in inshore waters on rocky bottoms and coral reefs, but also occurring on sandy or muddy bottoms further offshore. Scorpionfishes have venomous spines and should be handled with extreme care. Wounds can cause intense pain, respiratory distress and, in some cases, death. Immerse wound in hot water to relieve pain.

**Interest to fisheries** : The flesh is white and good eating but these fishes are not valued as food in Pakistan

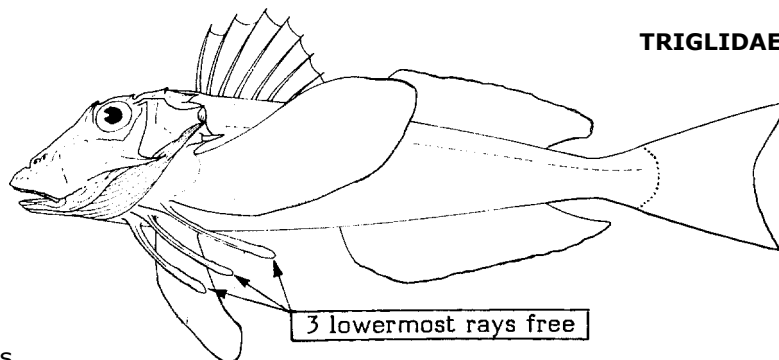
**TRIGLIDAE**

**Loc. names** : Bheel-alari (Bal)  
 Sea robin (En)

**FAO names** : En - Gurnards  
 Fr - Grondins  
 Sp - Cabetes

**Size** : Max.: to about 16 cm

**Fishing gear** : Accidentally caught in bottom trawls



**Habitat and biology** : Bottom-living species, found between 50 and about 250 m depth, usually in deeper waters of their range. They occur on sandy and muddy substrates, rubble or reef-type bottoms, using the free rays of their pectoral fins to search for food.

**Interest to fisheries** : There is no special fishery and if caught they are used for fishmeal

**Species of Triglidae**

**(dorsal view) rostral process**

**(dorsal view) rostral process**

**(dorsal view) rostral process**

**Lepidotrigla bispinosa** (Steindachner, 1898)  
 Bullhorn gurnard  
 size: to 16 cm

**Lepidotrigla spiloptera** Günther, 1880  
 Spottedwing gurnard  
 size: to 10 cm

**Lepidotrigla omanensis** Regan, 1905  
 Oman gurnard  
 size: to 12.5 cm

**10 to 14 scale rows below lateral line**

**BONY FISHES**

**PLATYCEPHALIDAE**

**Loc. names :** Khuker (Sin); Khuker (Bal)

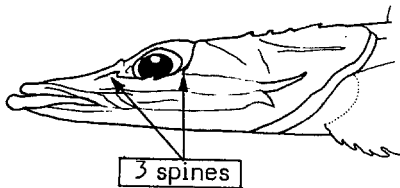
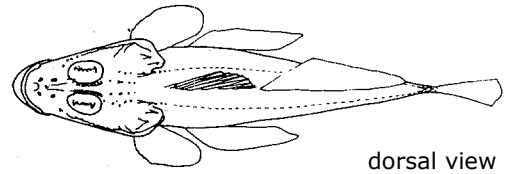
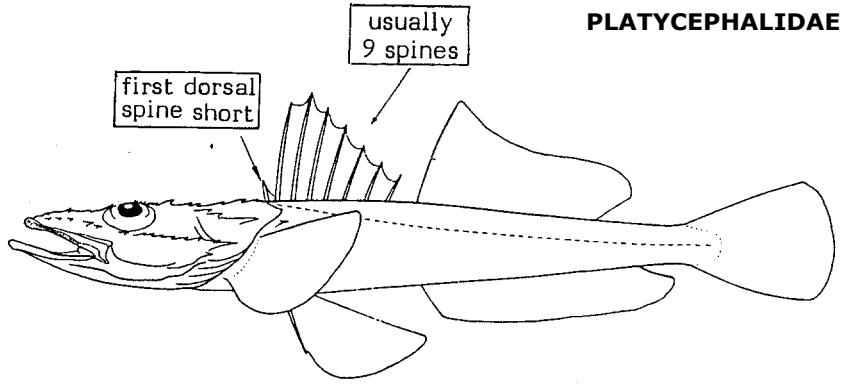
**FAO names :** En - Flatheads  
Fr - Platycéphales  
Sp - Chatos

**Size :** Max.: 100 cm

**Fishing gear :** Caught with bottom trawls

**Habitat and biology :** Bottom-living fishes, found on mud or sand, to about 75 m depth. Some species are associated with rocky shores and coral reefs

**Interest to fisheries :** These species are only accidentally caught. Although quite frequent in the catches, they are never in large quantities. Most species are good food-fishes



Species of **Platycephalidae**

small dark spots on top of head and back

only anterior lateral line scales bearing a spine

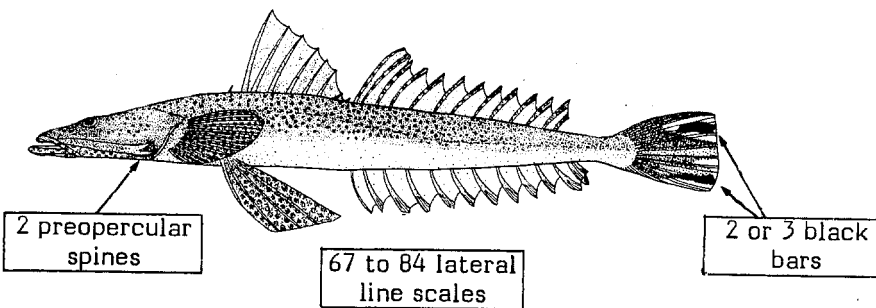
11 soft rays

11 soft rays

Cociella crocodila (Tilesius, 1812)  
Crocodile flathead  
size: to 50 cm

a black spot

Grammoplites suppositus (Troschel, 1840)  
Spotfin flathead  
size: to 25 cm



Platycephalus indicus (Linnaeus, 1758)  
Bartail flathead  
size: to 100 cm