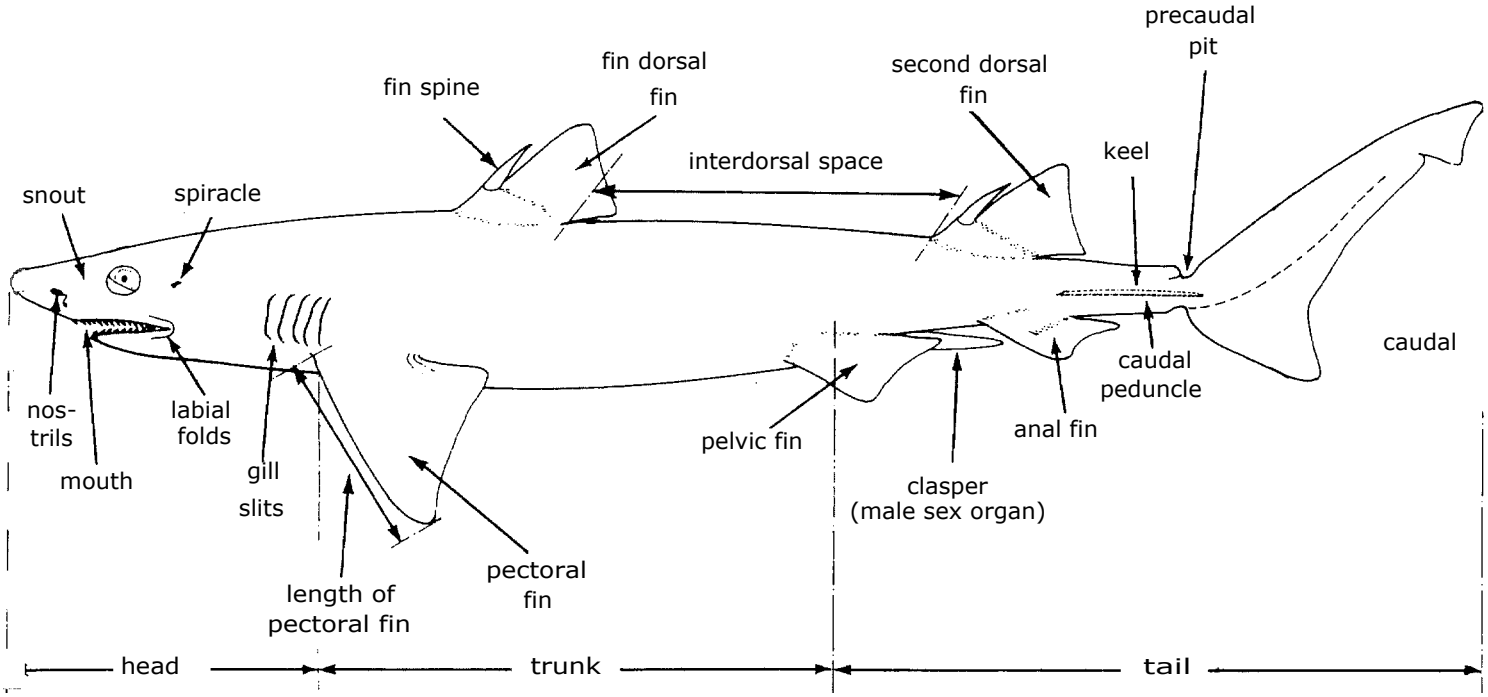
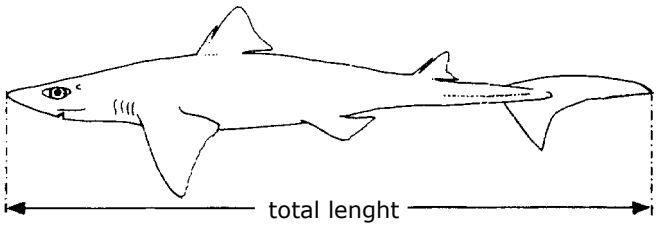
SHARKS

TECHNICAL TERMS AND PRINCIPAL MEASUREMENT

(Straight-line distances)

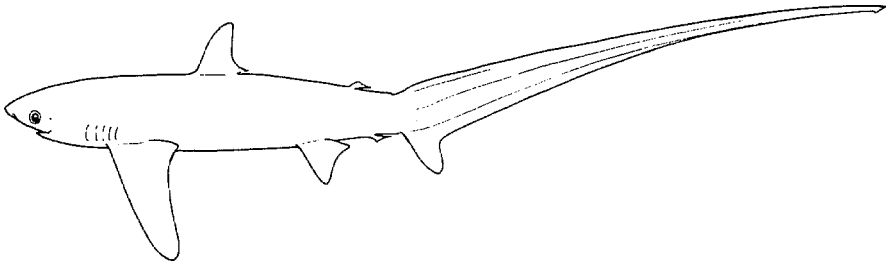




Sharks sustain an important fishery in the coastal waters of Pakistan. Species of Galeocerdo, Carcharhinus, Scoliodon, Sphyrna, Chiloscyllium, Stegostoma and Triaenodon constitute a considerable part of the commercial catches. The most important aspect of the exploitation of sharks is the extraction of oil from the liver which has, in many species, a high content of vitamin A but it is used mainly for smearing boats. Shark fins are exported to China. The skin of some species is used for polishing (shagreen) or for leather. In the Sind, sharks generally are commercially graded by size, with three differently named groups being recognized: Mangra - small-size, less than 80 cm; Barkali - medium-size, between 80 and 140 cm; and Paggas - large-size, greater than 140 cm. Fishermen, on the other hand, have more specific names for each species. The Handbook of Fisheries Statistics of Pakistan (1973-83) reports annual catches of sharks ranging from 8 127 t (1983) to 43 769 t (1973) with an average of 25 763 t.

SHARKS

ALOPIIDAE



Loc. names : Dummi-mangar (Sin);
Dumbi, Mushk (Bal)

FAO names : En - Thresher sharks
Fr - Renards
Sp - Zorros

Size : Max.: to 500 cm

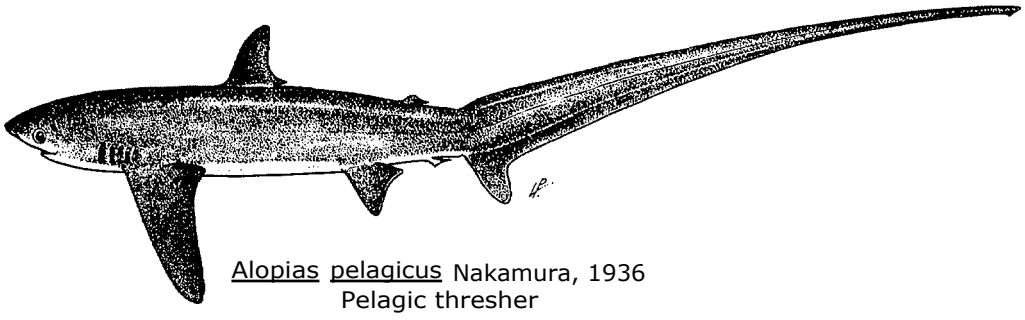
Fishing gear : Caught with longlines and on hook and line

Habitat and biology : Found in coastal and offshore waters to more than 500 m depth. Ovoviviparous, with 2 to 4 young per litter. Feeds on small fishes and pelagic invertebrates

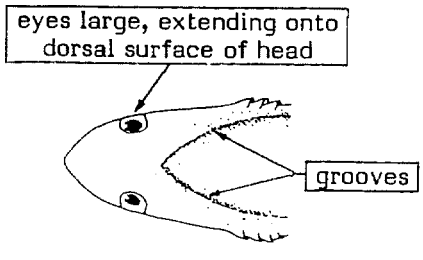
Interest to fisheries : Species of this family are not very often caught

---

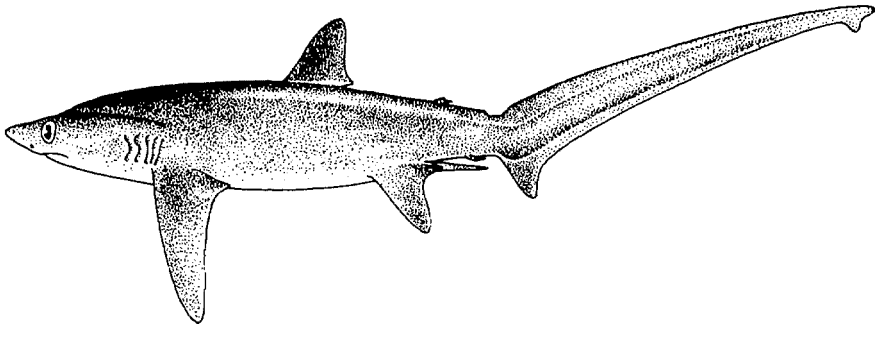
Species of **Alopiidae**



Alopias pelagicus Nakamura, 1936
Pelagic thresher
size: to 350 cm



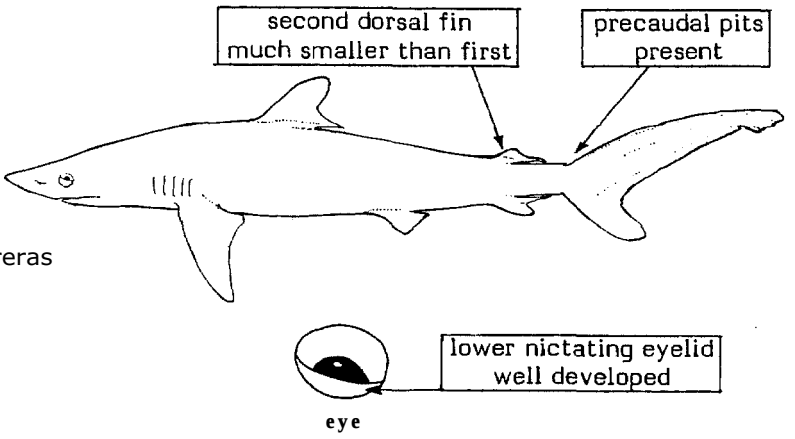
dorsal view of head



Alopias superciliosus (Lowe, 1839)
Bigeye thresher
size: to 500 cm

BONY FISHES

CARCHARHINIDAE



Loc. names : Mangra, Barkali (Sin)
Nur-mani (Bal)

FAO names : En - Requiem sharks
Fr - Requins
Sp - Cazones picudos, tiburones, tintoreras

Size : Small to large sharks, some species to more than 600 cm

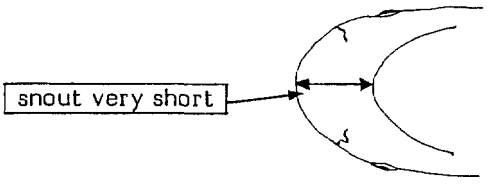
Fishing gear : Longlines and handlines, drift nets, gilinets, also caught in trawls

Habitat and biology : Species of this family are all strong swimmers and occur mainly over the continental shelf, often very close inshore, some species entering river mouths and even fresh waters. Not much is known about habitat and biology of several species. All are voracious predators and feed on a wide variety of organisms. The larger carcharhinids are dangerous to people

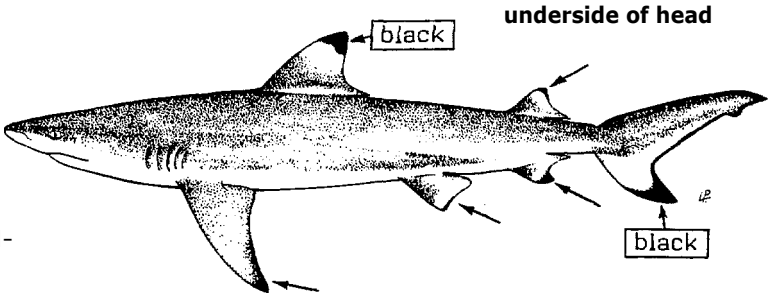
Interest to fisheries : Certainly the most important shark family for fisheries in Pakistan, as well as in the whole Yestern Indian Ocean. Mainly used for fishmeal, except for the liver from which oil is extracted. The fins are dried and exported for the oriental sharkfin soup market. Juveniles are marketed fresh

---

Carcharhinus melanopterus (Quoy & Gaimard, 1824)



underside of head



Synonyms Hypoprion playfairi (Günther, 1870)

Loc. names : Mangra, Barkal (Sin); Barkali (Bal)
Black shark (En)

FAO names : En - Blacktip reef shark
Fr - Requin pointes noires
Sp - Tiburón de puntas negras

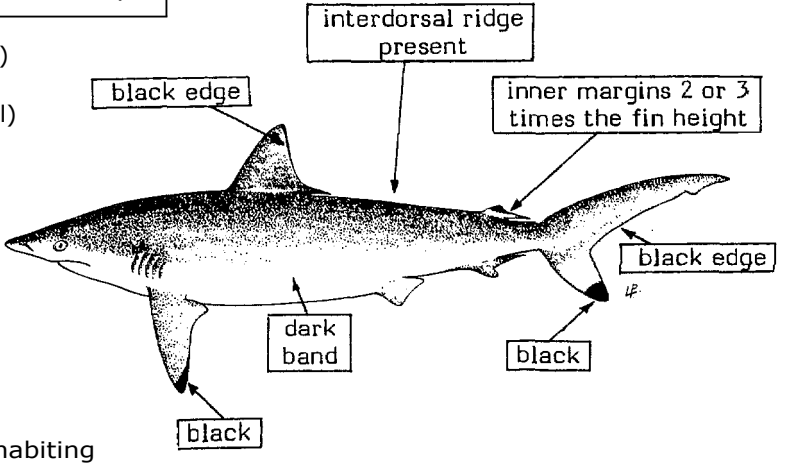
Size : Max.: 200 cm, most adults less than 160 cm

Fishing gear : Caught mainly with longlines and gill-nets

Habitat and biology : A rather common shark, mainly in inshore shallow waters, including brackish waters. Feeds on small bony fishes, octopuses and small sharks. There have been several reports of attacks on humans, but it should not be considered as a particularly dangerous shark due to its small size

---

Carcharhinus sorrah (Valenciennes, in Müller & Henle, 1839)



Synonyms Carcharhinus bleekeri (Dumeril, 1865)

Loc. names : Kanatyan, Mangra (Sin); Kanaitor (Bal)
Small grey shark (En)

FAO names : En - Spottail shark
Fr - Requin tacheté
Sp - Tiburón rabo manchado

Size : Max.: to 160 cm

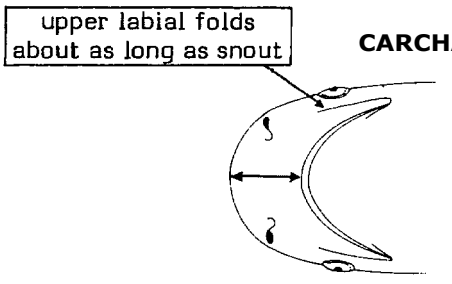
Fishing gear : Caught with gillnets and long-lines

Habitat and biology : A rather common shark, inhabiting the continental shelf from inshore waters to about 140 m depth. Feeds on small bony fishes and cephalopods. Probably not dangerous to people due to its small size

SHARKS

CARCHARHINIDAE

Galeocerdo cuvieri (Peron & LeSueur, in LeSueur, 1822)

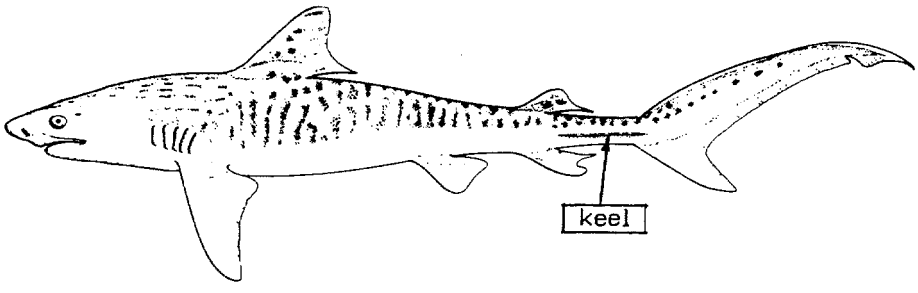


underside of head

Synonyms : Galeocerdo arcticus (Faber, 1829)
Galeocerdo rayneri McDonald & Barron, 1868

Loc. names : Mangra, Mohr (Sin); Nur-mani (Bal)

FAO names : En - Tiger shark
Fr - Requin tigre commun
Sp - Tintorera



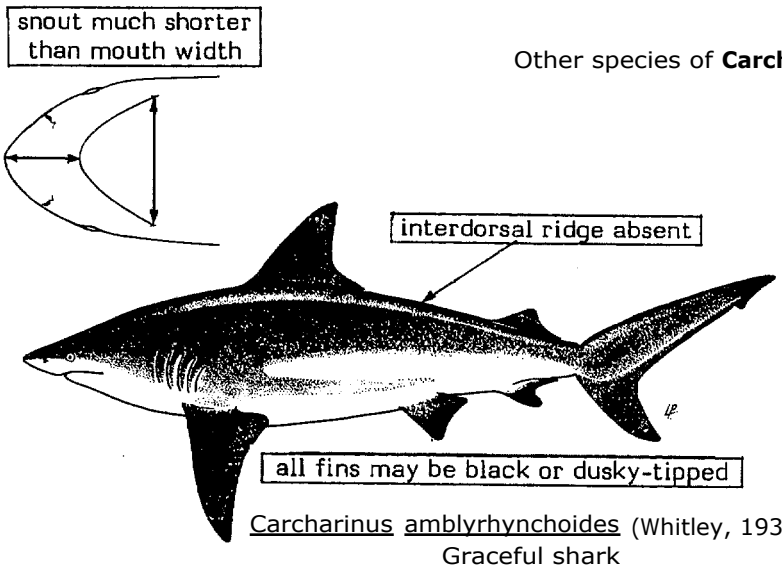
Size : Max.: at least 650 cm, possibly more than 750 cm; common to 400 cm

Fishing gear : Caught with gillnets and line gear. Live Pomadasys, Therapon or flesh of ray and eel are used as bait

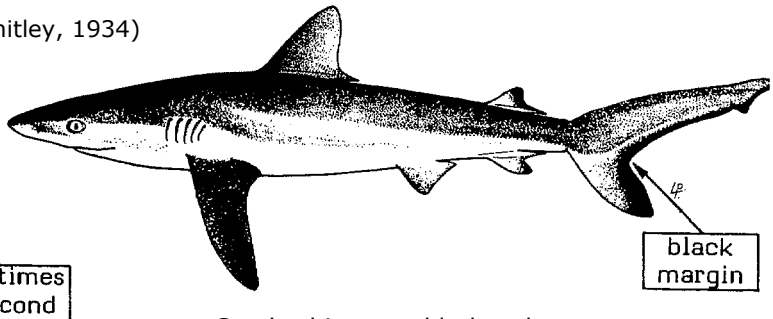
Habitat and biology : From inshore coastal waters to offshore waters, close to the surface or to the bottom, sometimes entering brackish waters, river mouths and even fresh waters. Ovoviviparous and very prolific, with 10 to more than 80 young in a litter. Mature embryos found in May-June. Very voracious, feeds on a wide variety of animals and also on carrion. Often gulps also undigestable items. Considered as one of the most dangerous sharks because of its occurrence in shallow waters, its large teeth and size, and its indiscriminate appetite

---

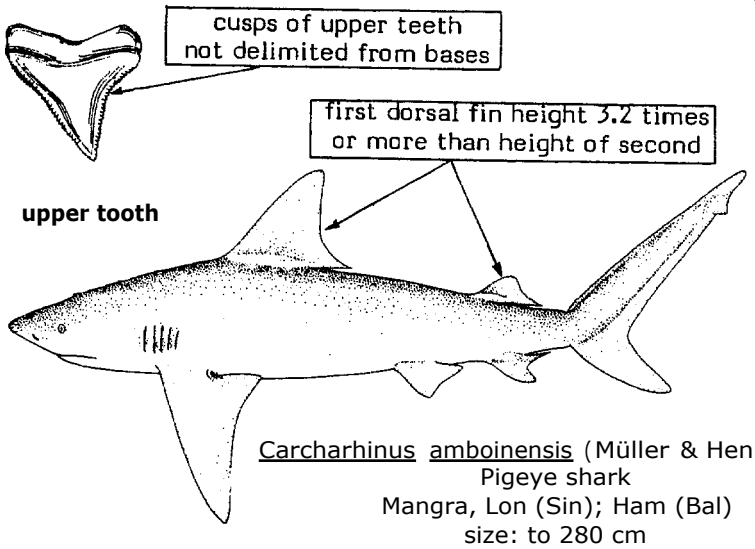
Other species of **Carcharhinidae**



Carcharinus amblyrhynchoides (Whitley, 1934)
Graceful shark
Mangra, Gussi (Sin)
Mussi (Bal)
size: to 170 cm



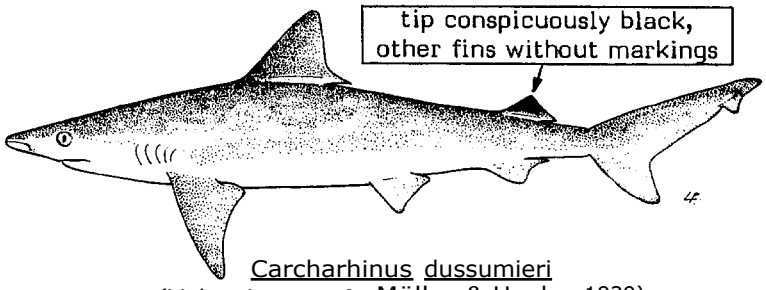
Carcharhinus amblyrhynchos (Bleeker, 1856)
Greyreef shark
Gandan, Kanatyan (Sin)
Gurrin paggas (Bal)
size: to 250 cm



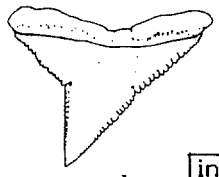
Carcharhinus amboinensis (Müller & Henle 1839)
Pigeye shark
Mangra, Lon (Sin); Ham (Bal)
size: to 280 cm

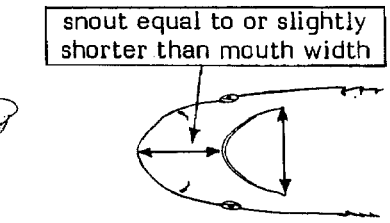
SHARKS

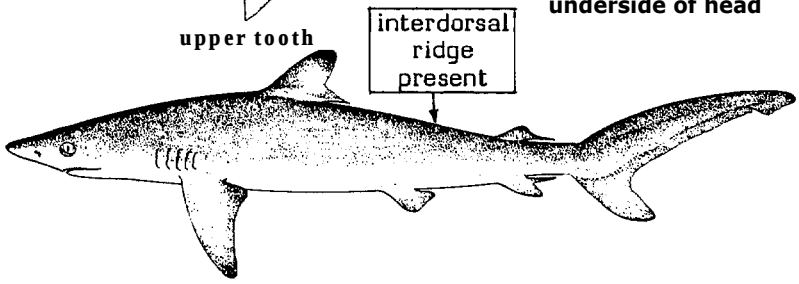
Other species of **Carcharhinidae** **CARCHARHINIDAE**



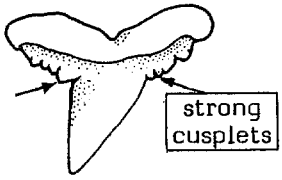
Carcharhinus dussumieri
(Valenciennes, in Müller & Henle, 1839)
Yhitecheek shark
Mangra, Kanatyan (Sin)
Gusso pishik (Bal)
size: to 100 cm

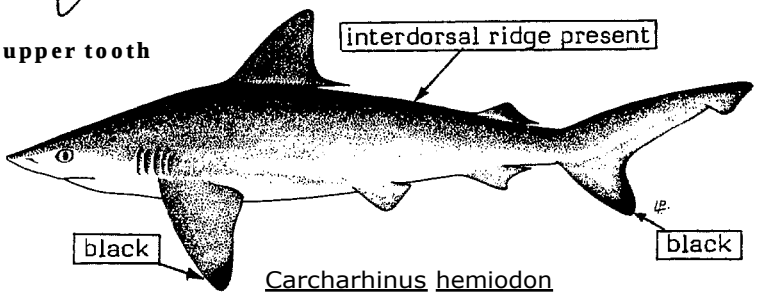




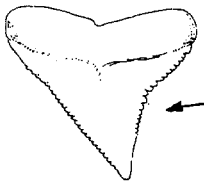


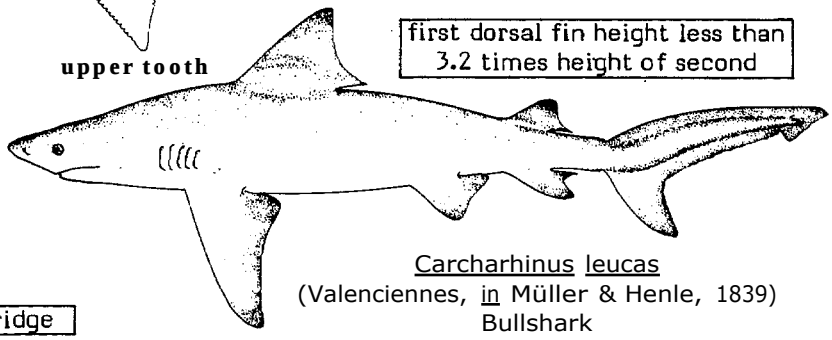
Carcharhinus falciformis (Bibron in Müller & Henle, 1839)
Silky shark
Mangra, Kanatyan (Sin)
Kanaitar paggas (Bal)
size: to 350 cm





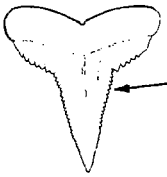
Carcharhinus hemiodon
(Valenciennes, in Müller & Henle, 1839)
Pondicherry shark
Mangra (Sin); Barkali (Bal)
size: to 200 cm

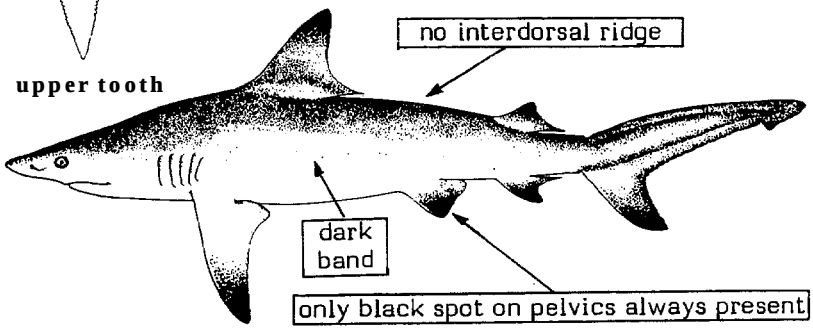




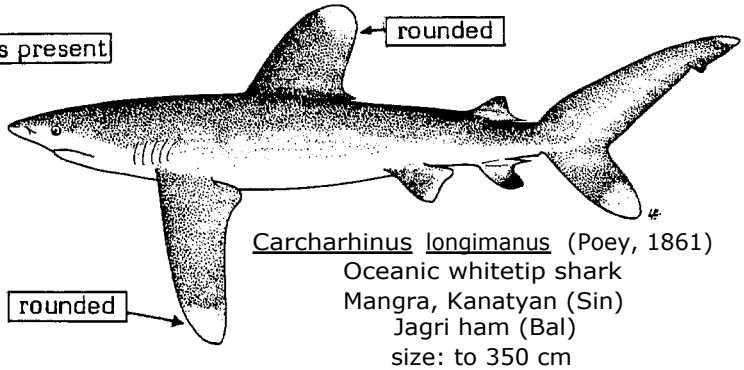
Carcharhinus leucas
(Valenciennes, in Müller & Henle, 1839)
Bullshark
Mangra, Kanatyan (Sin)
Bargore warook (Bal)
size: to 350 cm

PLATE XXIV, 139





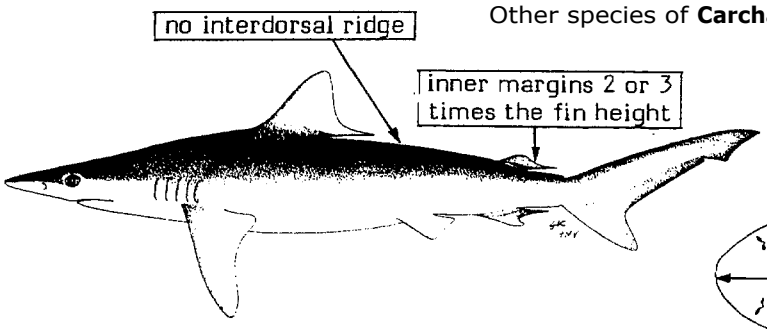
Carcharhinus limbatus
Valenciennes, in Müller & Henle, 1839)
Blacktip shark
Mangra, Gandan (Sin)
Kalawani kanaitor (Bal)
size: to 250 cm



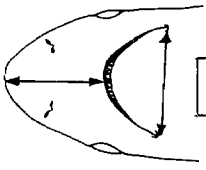
Carcharhinus longimanus (Poey, 1861)
Oceanic whitetip shark
Mangra, Kanatyan (Sin)
Jagri ham (Bal)
size: to 350 cm

SHARKS

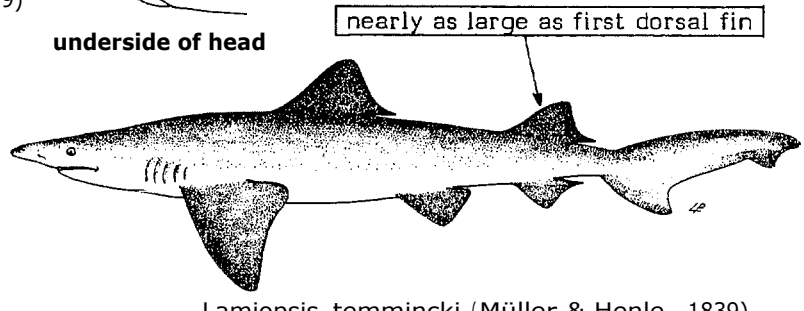
Other species of **Carcharhinidae** **CARCHARHINIDAE**



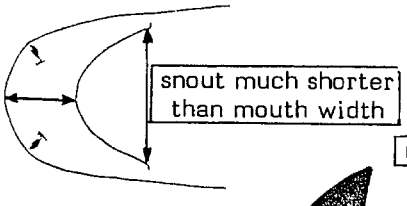
Carcharhinus macloti (Muller & Henle, 1839)
Hardnose shark
Mangra, Hangor (Sin)
Jaroi pishik (Bal)
size: to 100 cm

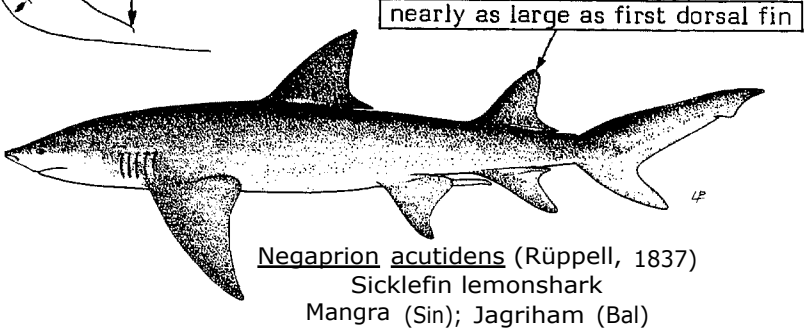


underside of head



Lamiopsis temmincki (Müller & Henle, 1839)
Broadfin shark
Mangra (Sin); Gusso pishik (Bal)
size: to 170 cm





Negaprion acutidens (Rüppell, 1837)
Sicklefin lemonshark
Mangra (Sin); Jagriham (Bal)
size: to 310cm

Glyphis gangeticus (Müller & Henle, 1839)

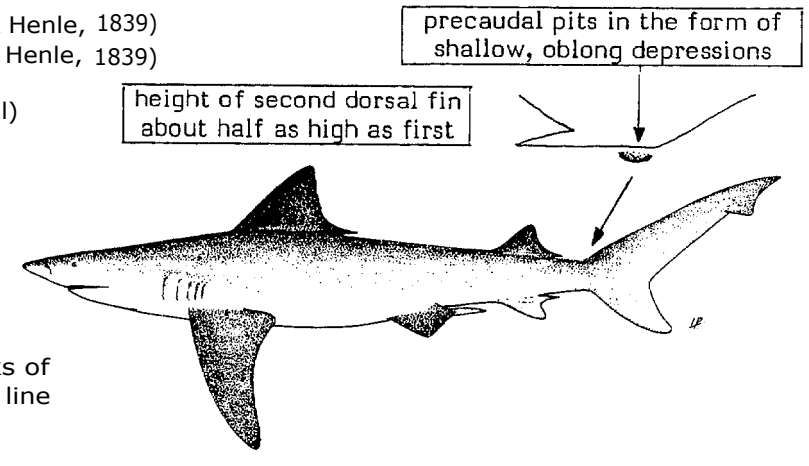
Synonyms Carcharhinus gangeticus (Müller & Henle, 1839)
Carcharhinus temmincki (Müller & Henle, 1839)

Loc. names : Gandan, Mangra (Sin); Gwareen (Bal)
Gangese grey shark (En)

FAO names : En - Ganges shark
Fr - Requin du Gange
Sp - Tiburón del Ganges

Size : Max.: uncertain, probably over 200 cm

Fishing gear : Probably caught like other sharks of similar habits and habitat, with gillnets and on line gear

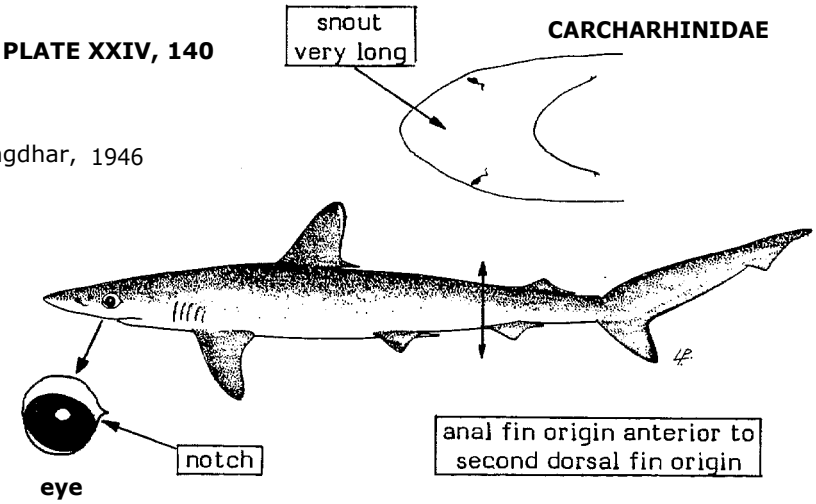


Habitat and biology : This species has often been confused with Carcharhinus leucas or other species and for this reason not much is known of its habitat and biology. It is known to occur in inshore waters and to enter river mouths and swim upstream. The feeding habits are also unknown but the large jaws suggest large prey like bony fishes, other sharks, etc. It has been reported to be dangerous to man but the reports might have actually referred to C. leucas

SHARKS

CARCHARHINIDAE

Loxodon macrorhinus Müller & Henle, 1839 **PLATE XXIV, 140**



Synonyms Scoliodon acutus (Rüppell, 1837)
Scoliodon ceylonensis Setna & Sarangdhar, 1946

Loc. names : Mangra (Sin); Tailgo pishik (Bal)

FAO names : En - Sliteye shark
Fr - Requin sagrin
Sp - Tiburón ojuelo

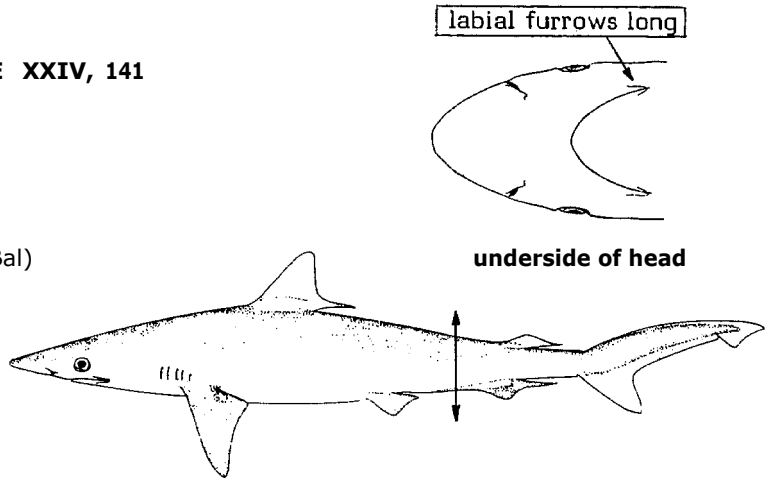
Size : Max.: about 90 cm

Fishing gear : Caught with gillnets and on line gear. Occasionally also in bottom trawls

Habitat and biology : Found in clear, coastal waters, from 7 to about 80 m depth. Viviparous, number of young per litter usually 2. A harmless shark, feeding on small fishes and crustaceans

---

Rhizoprionodon acutus (Rüppell, 1837) **PLATE XXIV, 141**



Synonyms Scoliodon acutus (Rüppell, 1837)
Scoliodon palasorra (Bleeker, 1853)
Scoliodon walbeehmi (Bleeker, 1856)

Loc. names : Mangra, Kamot (Sin); Sorapi pishik (Bal)

FAO names : En - Milk shark
Fr - Requin à museau pointu
Sp - Cazón picudo

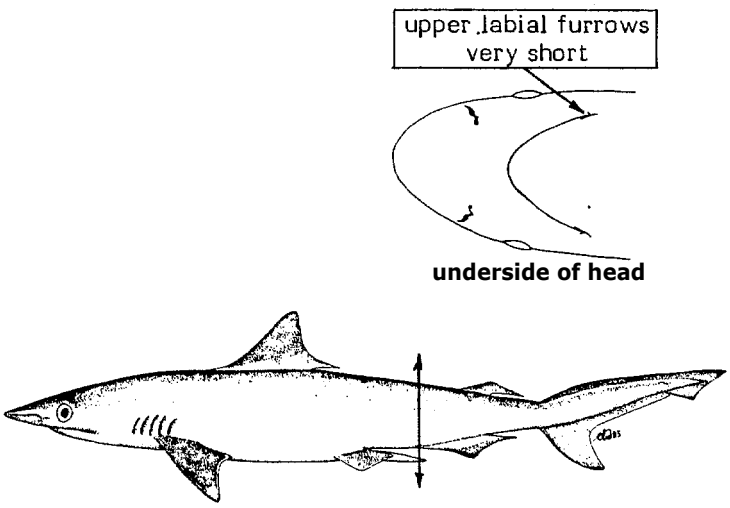
Size : Max.: to about 100 cm

Fishing gear : Caught with gillnets and on line gear

Habitat and biology : A very common small shark, found in coastal waters to about 50 m depth, close to the surface as well as the bottom. Viviparous, with 2 to 8 young in a litter, size at birth about 30 cm. Feeds on small bony fishes and crustaceans, harmless to people

---

Rhizoprionodon oligolinx Springer, 1964



Synonyms : Scoliodon palasorra (Bleeker, 1853)

Loc. names : Mangra, Kamot (Sin); Tailgo pishik (Bal)

FAO names : En - Grey sharpnose shark
Fr - Requin aiguille gris
Sp - Cazón picudo gris

Size : Max.: to about 60 cm

Fishing gear : Caught with longlines and gill-nets

Habitat and biology : In coastal waters, to about 40 m depth. Feeds on small fishes and invertebrates. Probably harmless to people

SHARKS

CARCHARHINIDAE

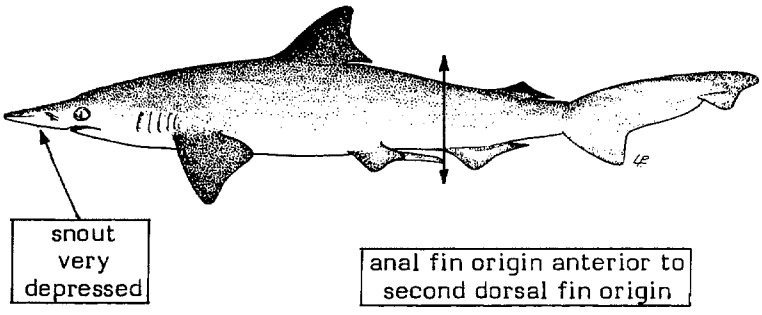
Scoliodon laticaudus Muller & Henle, 1838

Synonyms Physodon muelleri (Valenciennes, in Müller & Henle, 1839)
Scoliodon palasorra (Bleeker, 1853T
Scoliodon sorrakowa (Bleeker, 1853)

Loc. names : Mangra (Sin); Bhambol pishik (Bal)

FAO names : En - Spadenose shark
Fr - Reguin épée
Sp - Cazón espadachin

Size : Max.: to about 75 cm, but most individuals smaller



Fishing gear : Caught with line gear and gillnets

Habitat and biology : In coastal waters, near the bottom in rocky areas. Viviparous, with 5 to 14 young per litter, very abundant where it occurs. Forms large schools. Feeds on small schooling fishes, including anchovies, the bombay duck, bregmacerotids, etc. Mature embryos present in June

---

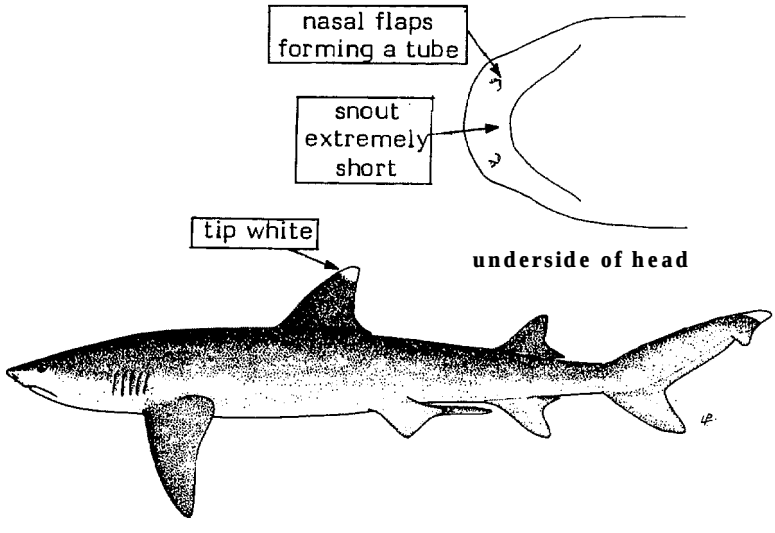
Triaenodon obesus (Rüppell, 1837)

Synonyms None

Loc. names : Mangra, Lone (Sin); Lone (Bal)
Light-tip shark (En)

FAO names : En - Whitetip reef shark
Fr - Requin corail
Sp - Cazón coralero trompacorta

Size : Max.: to more than 200 cm, but most adults below 160 cm



Fishing gear : Caught with gillnets and on line gear

Habitat and biology : In coastal clear waters, often in holes and crevices. Viviparous, 1 to 5 young in a litter. Feeds on small fishes, cephalopods and crustaceans. Reported to be dangerous to man. Mature embryos present in May-June

---

GINGLYMOSTOMATIDAE

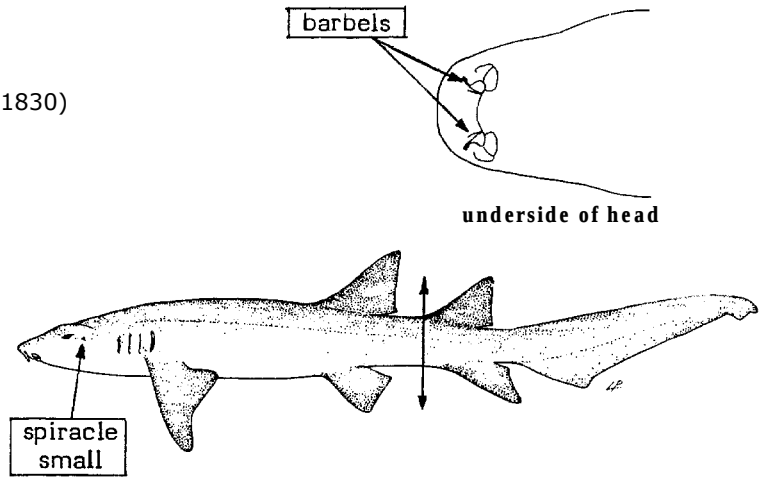
Nebrius ferrugineus (Lesson, 1830)

Synonyms : Nebrius concolor Rüppell, 1837
Ginglymostoma ferrugineum (Lesson, 1830)
Nebrius doldi Smith, 1953

Loc. names : Mangra (Sin); Pishi (Bal)
Sluggish shark (En)

FAO names : En - Tawny nurse shark
Fr - Requin-nourrice fauve
Sp - Gata riodriza atezada

Size : Max.:320 cm; common to 250 cm



Fishing gear : Caught with gillnets and on line gear

Habitat and biology : In coastal waters to about 70 m depth. A sluggish, bottom-living shark, common in lagoons, on sand flats and around coral reefs. Feeds on bottom invertebrates and small fishes

Interest to fisheries : Fins are used for the sharkfin oriental trade and oil is extracted from the liver. The offal is used for fishmeal

SHARKS

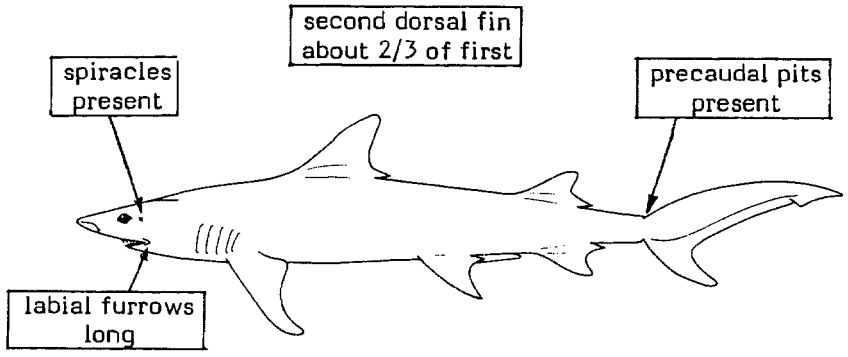
HEMIGALEIDAE

Loc. names : Mangra, Lone (Sin); Lone, Pishi (Bal)

FAO names : En - Weasel sharks
Fr - Milandres
Sp - Comadrejas

Size : Max.: usually rather small (not much more than 100 cm); H. elongatus said to reach 240 cm

Fishing gear : Caught with gillnets, long-lines and other line gear

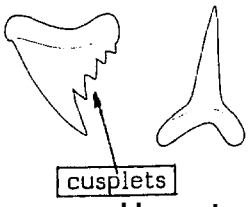


Habitat and biology : These sharks live on the continental shelf, mainly in coastal areas, not deeper than 100 m. Viviparous, with about 4 young per litter. Feed on a variety of small bony fishes, cephalopods, crustaceans and echinoderms

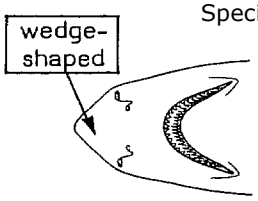
Interest to fisheries : Species of this family are commonly caught although their abundance is rather modest. The fins are used for the oriental sharkfin trade and oil is extracted from the liver

---

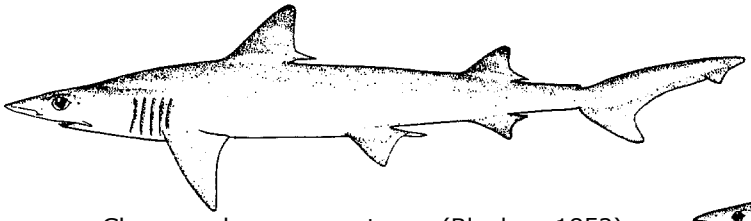
Species of **Hemigaleidae**



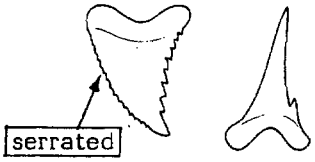
upper and lower teeth



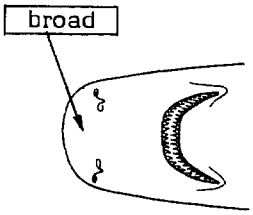
underside of head



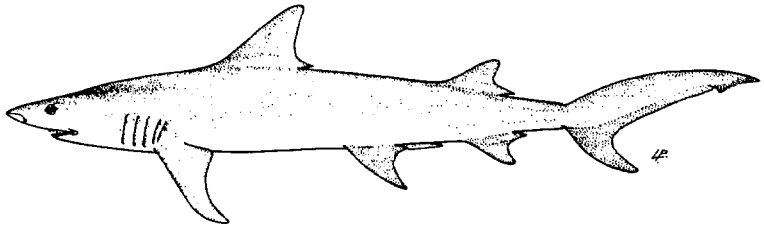
Chaenogaleus macrostoma (Bleeker, 1852)
Hooktooth shark
Mangra, Lone (Sin); Lone (Bal)
size: to 100 cm



upper and lower teeth



underside of head



Hemipristis elongatus (Klunzinger, 1871)
Snaggletooth shark
Mangra, Gandan (Sin); Pishi (Bal)
size: to 240 cm

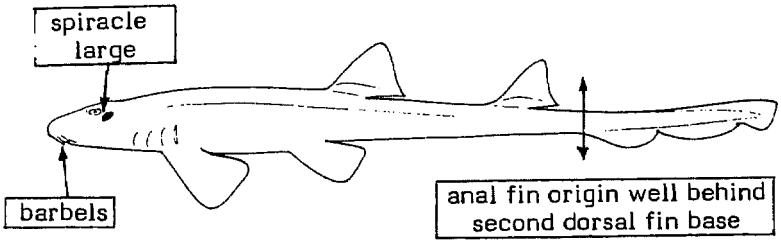
HEMISCYLLIIDAE

Loc. names : Kamot, Mangra (Sin); Pishi (Bal)

FAO names : En - Longtail carpetsharks
Fr - Requins-cabot
Sp - Bamboas

Size : Max.: small sharks, usually less than 100 cm

Fishing gear : Caught in bottom trawls and gillnets



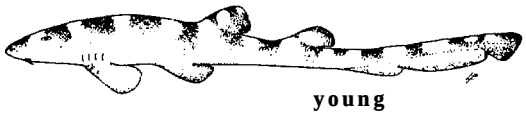
Habitat and biology : Slow-swimming, bottom-dwelling inshore sharks, feeding on small fishes and invertebrates. Oviparous, eggs are deposited in cases on the bottom

Interest to fisheries : These sharks are among the most abundant along the coast of Pakistan

SHARKS

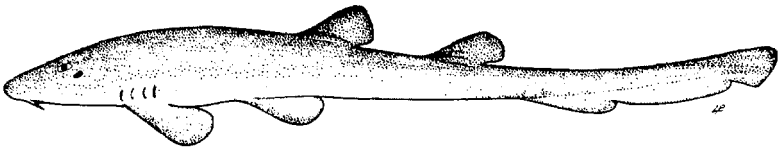
HEMISCYLLIIDAE

Species of **Hemiscylliidae**



young

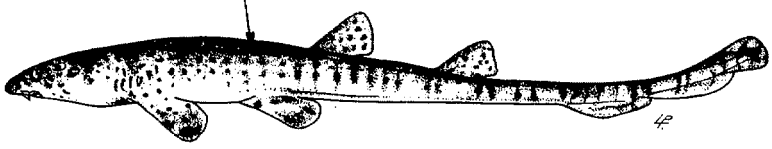
no lateral ridges on body



Chiloscyllium griseum Muller & Henle, 1839
Grey bambooshark
size: at least 75 cm

lateral ridges present

numerous dark spots on body



Chiloscyllium indicum (Gmelin, 1789)
Slender bambooshark
size: to 65 cm

LAMNIDAE

Isurus oxyrinchus Rafinesque, 1810

Synonyms : Isurus glaucus (Muller & Henle, 1839)

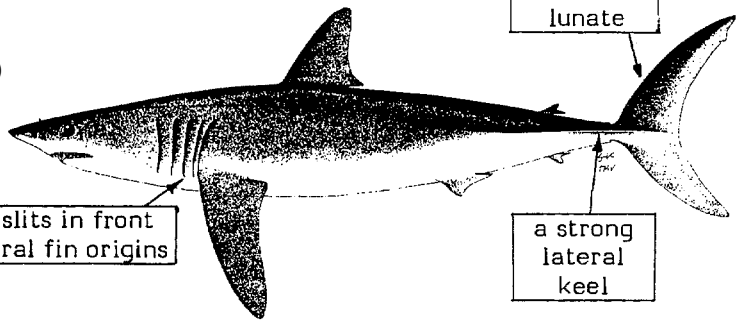
Loc. names : Mangra, Dandani (Sin); Nar manger (Bal)

FAO names : En - Shortfin mako
Fr - Taupe bleu
Sp - Marrajo dientuso

Size : Max.: 400 cm; common to 270 cm

Fishing gear : Caught with longlines and probably also with gillnets and on hook and line

caudal fin lunate



all gill slits in front of pectoral fin origins

a strong lateral keel

Habitat and biology : An oceanic, as well as coastal species, usually in surface waters and known to leap out of the water. Ovoviviparous, 1 to 6 young in a litter. Feeds on schooling fishes and on larger species, such as tunas and swordfishes. Known to be very dangerous and to attack swimmers and boats

Interest to fisheries : The flesh of this species is renowned for being a delicacy, oil is extracted from the liver because of the high vitamin content, the skin can be processed into leather and the fins used for sharkfin soup

---

ODONTASPIDIDAE

Eugomphodus taurus (Rafinesque, 1810)

Synonyms A poorly known species, Eugomphodus tricuspidate (Day, 1878) might be a synonym of E. taurus

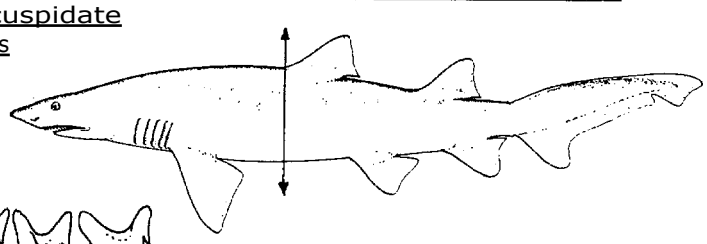
Loc. names : Mangra, Dandanee (Sin)

FAO names : En - Sand tigershark
Fr - Requin taureau
Sp - Toro bacota

Size : Max.: about 318 cm; most adults between 220 and 280 cm

Fishing gear : Caught with longlines, handlines and gillnets

2nd dorsal fin almost as large as first



teeth with very long and narrow cusps

Habitat and biology : A coastal species, living in or near sandy bays. Ovoviviparous, with 1 or 2 young per litter. Feeds on a variety of small fishes, sharks and rays, squid and occasionally crabs and lobsters

Interest to fisheries ; Used mainly for oil extracted from the liver

BONY FISHES

RHINIODONTIDAE

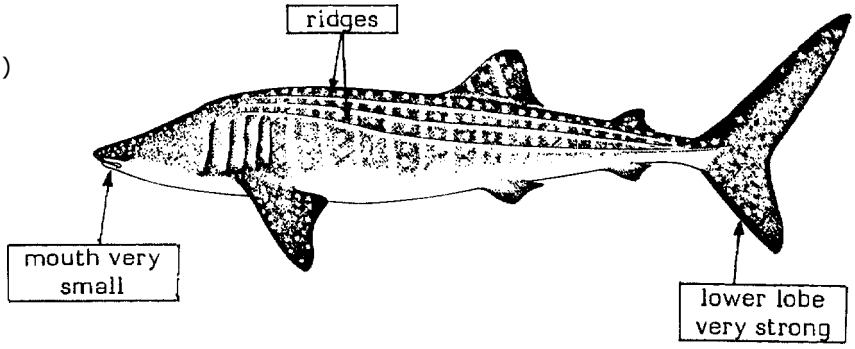
Rhiniodon typus Smith, 1828

Synonyms : Rhincodon typus Smith, 1829

Loc. names : Andhi-mangar (Sin); Baran (Bal)

FAO names : En - Whale shark
Fr - Requin baleine
Sp - Tiburón ballena

Size : Max.: uncertain, probably to 18 m, but most specimens rarely above 12 m



Fishing gear : Harpoons

Habitat and biology : An epipelagic, oceanic, as well as coastal species, observed well offshore but also close inshore and entering lagoons. Found individually or forming large schools. It seems to prefer areas with upwelling waters, probably because of the more favorable conditions for the production of plankton. Not much is known about its development. Egg cases of football size are deposited and the eggs hatch when the young is over 35 cm long. Filter-feeder, feeds on a wide variety of planktonic and nektonic organisms (crustaceans, schooling fishes, anchovies, sardines and squid)

Interest to fisheries : Although this species can weigh several tonnes, the flesh is not used for human consumption. Oil is extracted from the liver and used for smearing boats

---

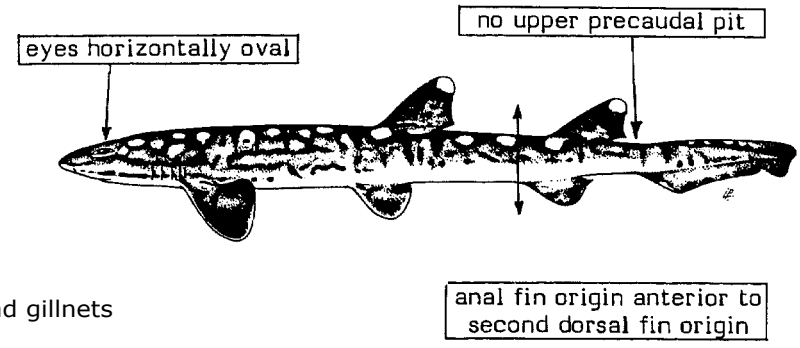
SCYLIORHINIDAE

Atelomycterus marmoratus (Bennett, 1830)

Synonyms None

Loc. names : Mangra (Sin); Tikki pishi (Bal)

FAO names : En - Marbled catshark
Fr - Chien corail
Sp - Pintarroja coral



Size : Max.: about 70 cm

Fishing gear : Probably caught with line gear and gillnets

Habitat and biology : Found in Inshore waters. Oviparous

Interest to fisheries : Like other sharks, is used mainly for fishmeal and oil

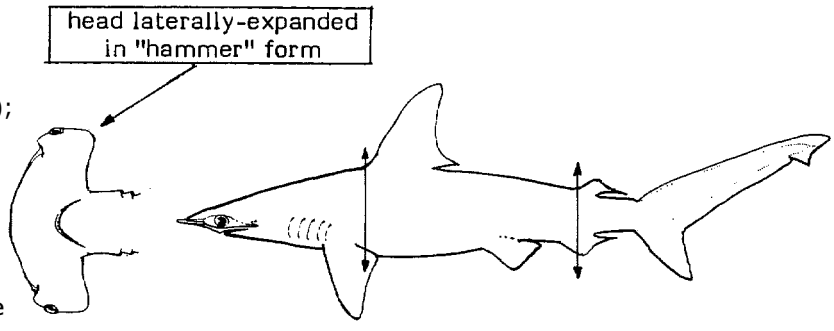
---

SPHYRNIDAE

Loc. names : Julia-mangar (Sin); Buther (adult); Kanti (juv.)(Bal)

FAO names : En - Hammerhead sharks
Fr - Requins marteau
Sp - Cornudas

Size : Max.: medium to large sized, some species to more than 600 cm



underside of head

Fishing gear : Caught with gillnets and long-lines

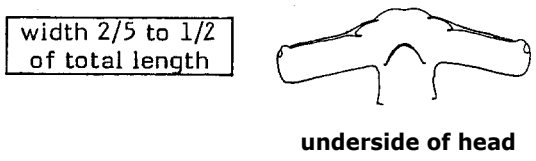
Habitat and biology : Mainly in surface waters, the adults of most species are semi-oceanic while the young are found close inshore. Feed on bony fishes, sharks and rays. Reported to be dangerous to man

Interest to fisheries : Species of this family are abundant in Pakistan and sustain rather important fisheries. They are used mainly for extracting oil which seems to have a high content of vitamin A

SHARKS

SPHYRNIDAE

Eusphyra blochii (Cuvier, 1817:

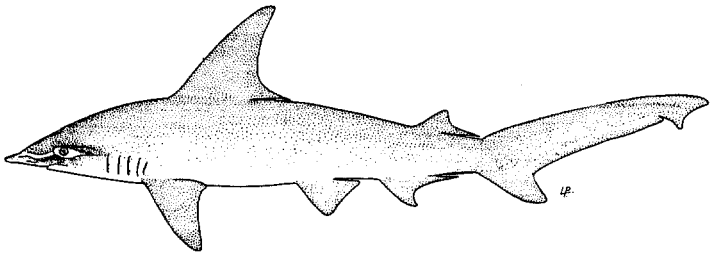


underside of head

Synonyms : Sphyrna blochii (Cuvier, 1817)

Loc. names : Julia-mangar (Sin);
Buther, Dokzai, Dokan (Bal)
Arrow-headed shark (En)

FAO names : En - Winghead shark
Fr - Requin marteau planeur
Sp - Cornuda planeadora



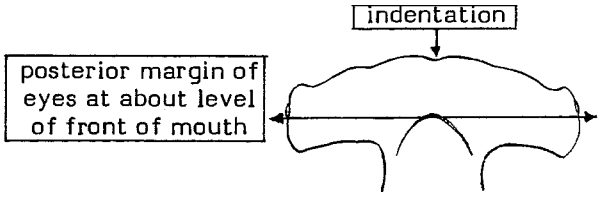
Size : Max.: about 150 cm

Fishing gear : Caught with gillnets and longlines

Habitat and biology : Mainly in inshore waters. Viviparous, with 6 to 11 young per litter

---

Sphyrna lewini (Cuvier, Griffith & Smith, 1834)

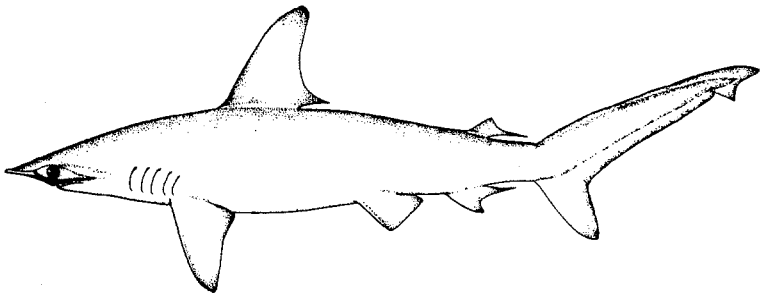


underside of head

Synonyms : Sphyrna diplana Springer, 1941

Loc. names : Julia-mangar (Sin);
Bhuther, Alwandi, Kanti (juv.)(Bal)

FAO names : En - Scalloped hammerhead
Fr - Requin marteau halicorne
Sp - Cornuda común



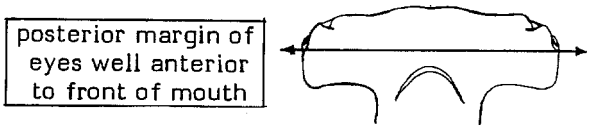
Size : Max.: 420 cm; common to 360 cm

Fishing gear : Caught with gillnets and longlines. Flesh of rays and eels are used as bait

Habitat and biology : An offshore and semi-oceanic species, often encountered in inshore waters and estuaries, probably in search of food. Viviparous, number of young per litter up to 30. Feeds on small pelagic fishes, other sharks and rays and also in invertebrates. Adults considered to be dangerous to man. The most common hammerhead in the area

---

Sphyrna mokarran (Rüppell, 1837)

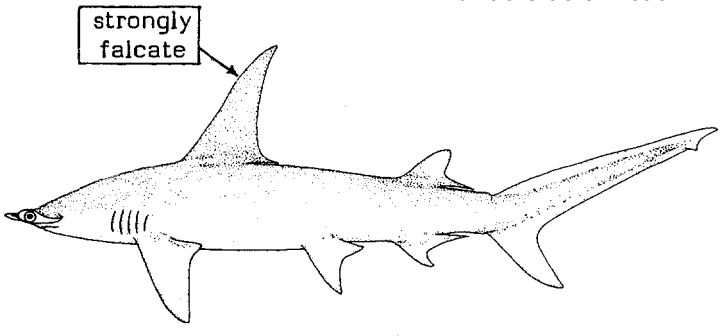


underside of head

Synonyms : Sphyrna tudes (Valenciennes, 1822)

Loc. names : Julia-mangar (Sin);
Buther, Maish, Katial (medium) (Bal)

FAO names : En - Great hammerhead
Fr - Grand requin marteau
Sp - Cornuda gigante



Size : Max.: 600 cm, but possibly more; common to about 360 cm

Fishing gear : Caught with longlines and gillnets

Habitat and biology : A coastal, as well as semi-oceanic species. Viviparous, with 18 to 38 young per litter. Feeds on bony fishes, other sharks, rays, squids and lobsters

SHARKS

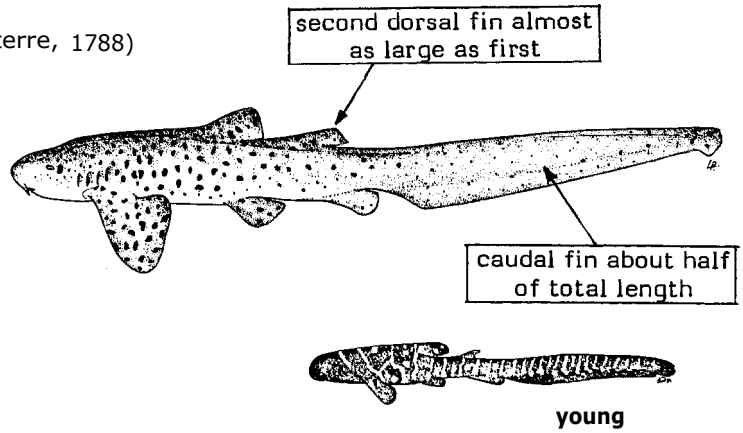
STEGOSTOMATIDAE

Stegostoma fasciatum (Hermann, 1783)

Synonyms Stegostoma varium (Seba, 1758)
Stegostoma tygrinus or tigrinus (Bonnaterre, 1788)

Loc. names Billi, Pusuni (Sin)
Pishi (Bal)

FAO names : En - Zebra shark
Fr - Requin zèbre
Sp - Tiburón acebrado



Size : Max.: to more than 300 cm, but most specimens much smaller

Fishing gear : Caught in bottom trawls, gillnets and longlines

Habitat and biology : An inshore shark, found near the bottom or on coral reefs. Oviparous, eggs are deposited in oblong cases. Feeds mainly on molluscs but also on small fishes

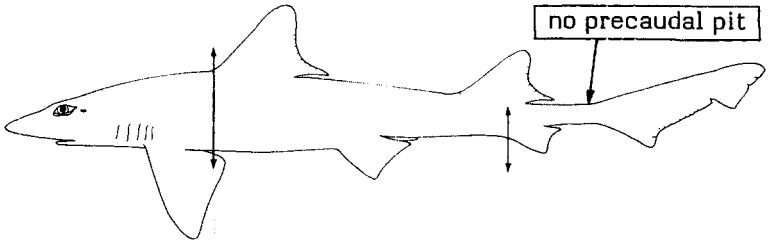
Interest to fisheries : Quite common, but not particularly abundant. It is used for fishmeal, oil and the fins are dried for the oriental sharkfin trade

---

TRIAKIDAE

Loc. names : Mangra, Kari-mangar (Sin);
Chao, Zaid (Bal)

FAO names : En - Houndsharks, smoothhounds
Fr - Requins-hâ, emissoles
Sp - Cazones, musolas



Size : Small sharks, usually smaller than 100 cm

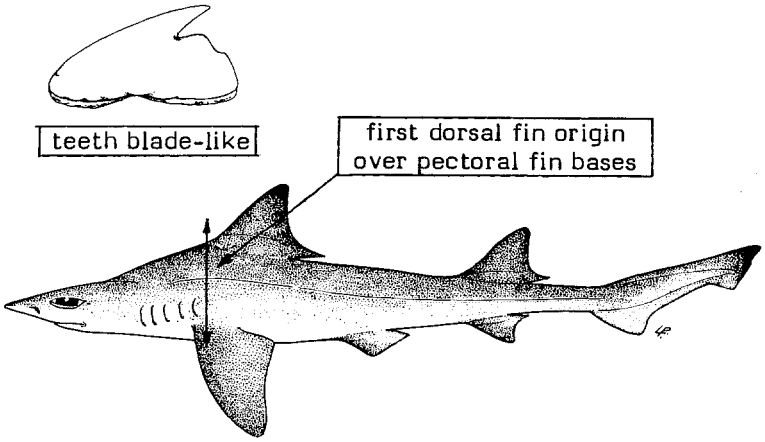
Fishing gear : Caught in bottom trawls, with gillnets and on line gear

Habitat and biology : Bottom-living sharks, found on the continental shelf, as well as in deeper waters, possibly to 2,200 m depth. Viviparous, feed on small bottom-living invertebrates and small fishes

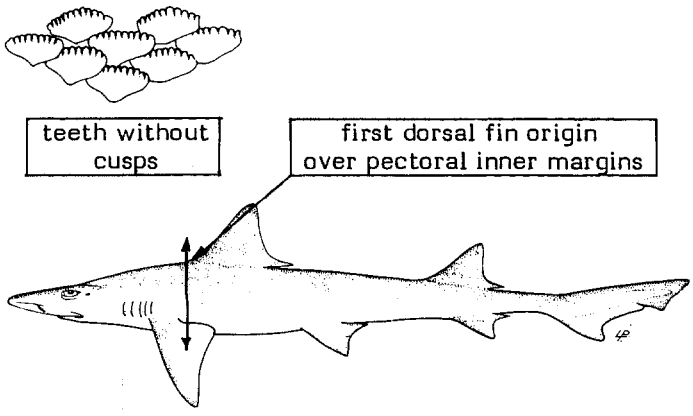
Interest to fisheries : Not particularly abundant. If caught, used for fishmeal and oil. The fins are dried for the oriental sharkfin trade

---

Species of **Triakidae**



Iago omanensis (Norman, 1939)
Mangra (Sin); Chao (Bal)
Bigeye houndshark
size: to 60 cm



Mustelus mosis Hemprich & Heremberg, 1899
Kari-mangar (Sin); Zaid (Bal)
Arabian smoothhound
size: to 106 cm