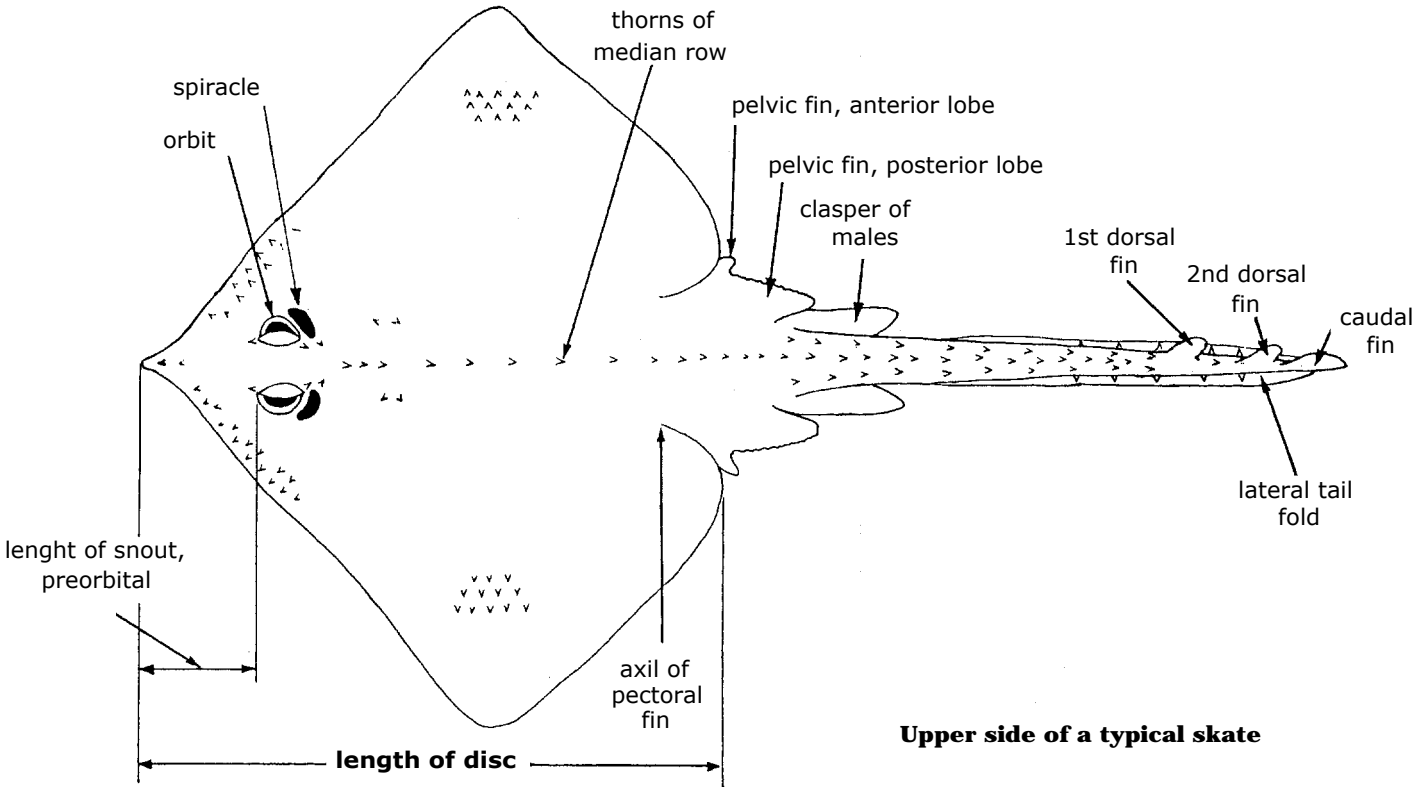


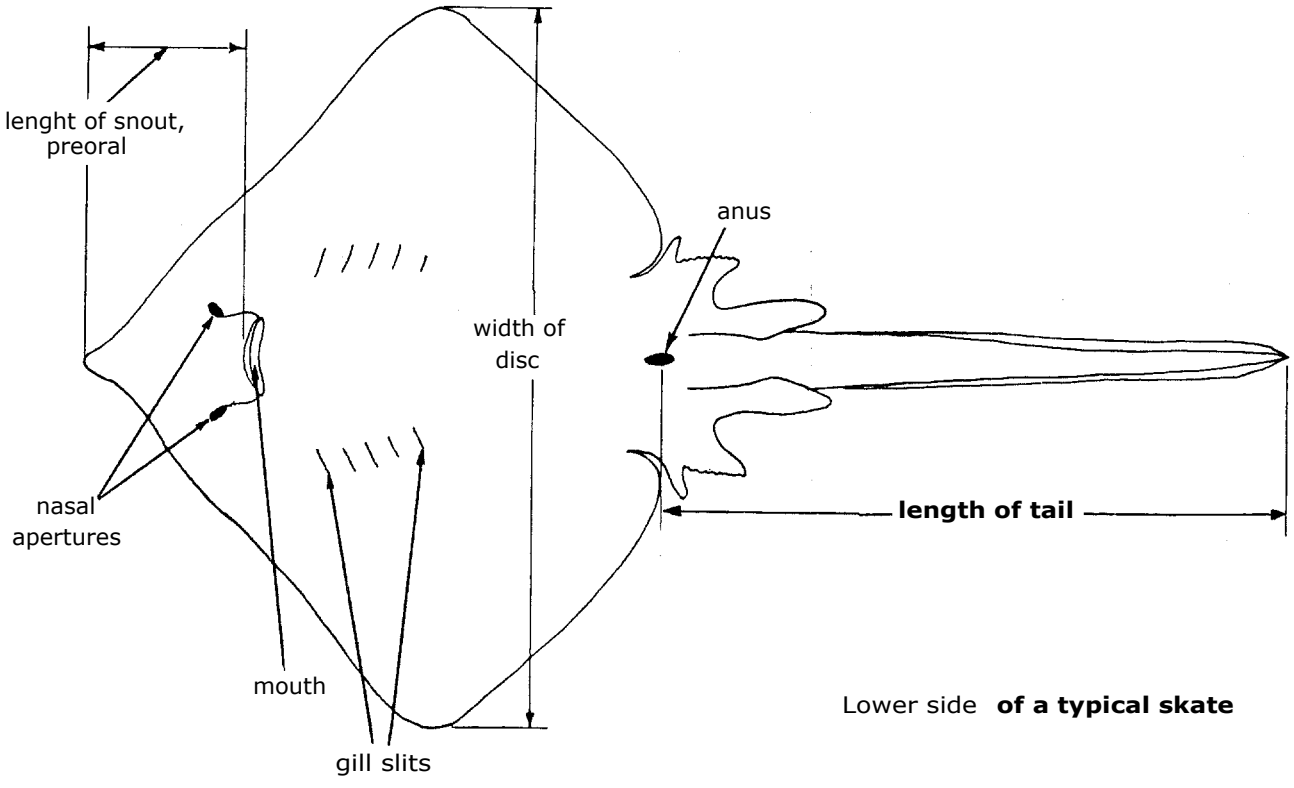
BATOID FISHES

TECHNICAL TERMS AND PRINCIPAL MEASUREMENTS USED

(Straight-line distances only)



Upper side of a typical skate



Lower side of a typical skate

The batoid fishes constitute an important part of the commercial catches of Pakistan. Oil is extracted from the liver of some species and used mainly for smearing boats. They are not consumed as food but used mainly for fishmeal.

BATOID FISHES

DASYATIDAE

Loc. names : Pittan (Sin); Pittan (Bal)

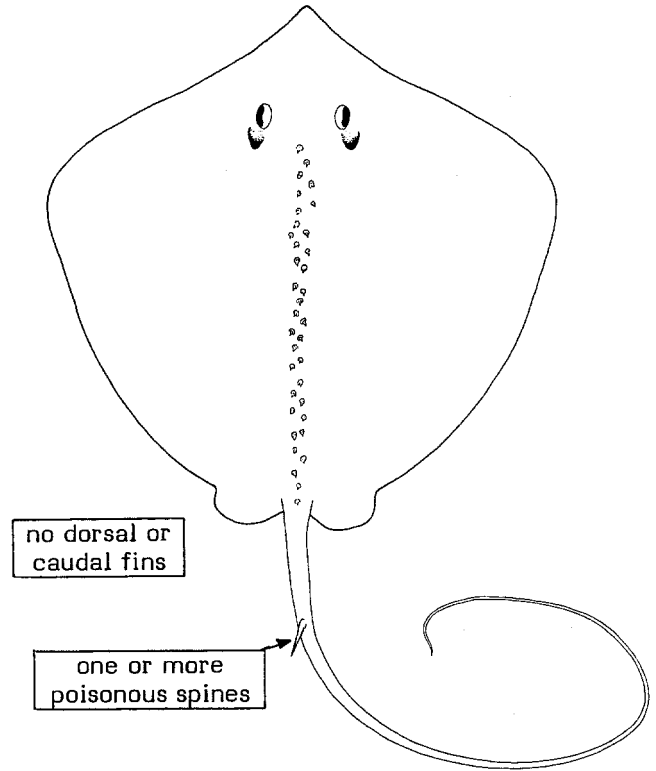
FAO names : En - Stingrays, whiprays
Fr - Pastenagues
Sp - Rayas latigo

Size : Variable, may reach more than 200 cm disc width

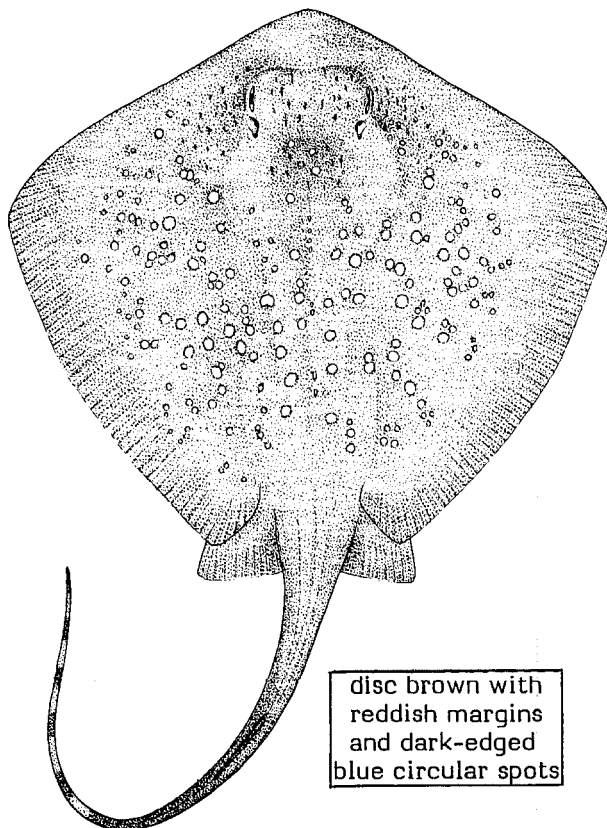
Fishing gear : Caught with lines, harpoons and in bottom trawls

Habitat and biology : Stingrays are found mainly in shallow waters, including lagoons, river mouths and mangrove areas. Some species enter fresh waters. All species are ovoviviparous. The spines present on the tail can be rather dangerous and can inflict painful wounds which may take a long time to heal

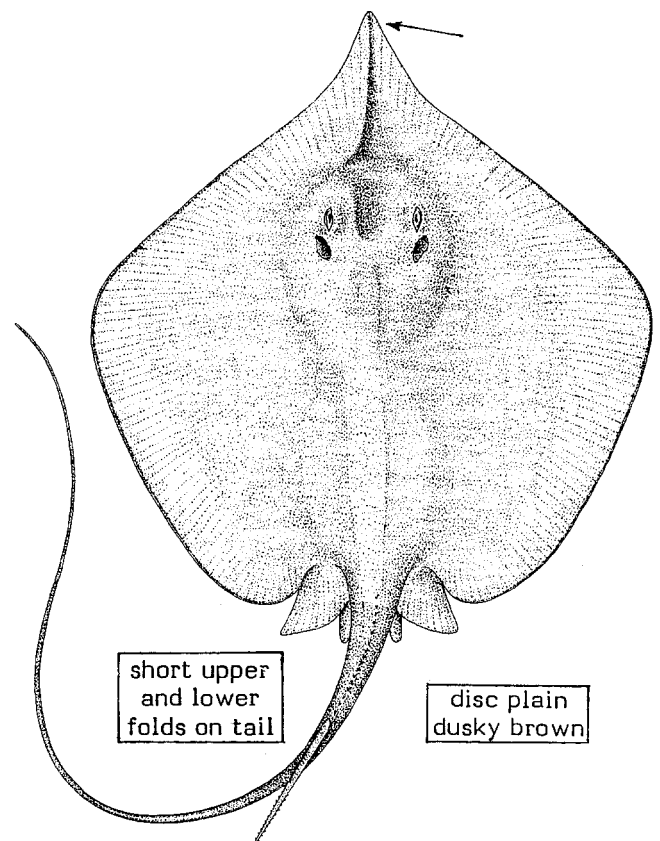
Interest to fisheries : Not locally consumed, but the flaps are dried for export or used for fish-meal. Oil is extracted from the liver but the quality is said to be rather low. The Handbook of Fisheries Statistics of Pakistan (1973-83) reports annual catches of stingrays ranging from 10 116 t (1983) to 49 017 t (1982), with an average of 29 600 t



Species of **Dasyatidae**



Dasyatis kuhlii (Miller & Henle, 1841)
Pittan (Sin)
Chittipittan, Pittan, Phulano (Bal)

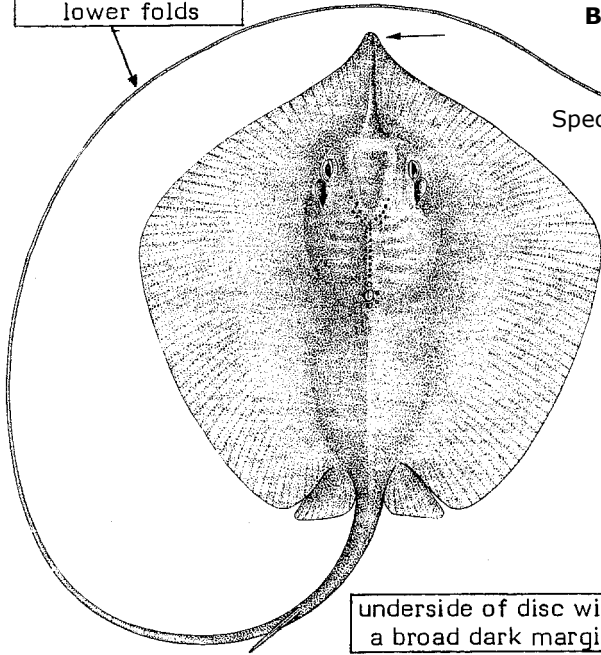


Dasyatis zugei (Miller & Henle, 1841)
Pittan (Sin); Uthar pittan (Bal)

BATOID FISHES

Species of **Dasyatidae**

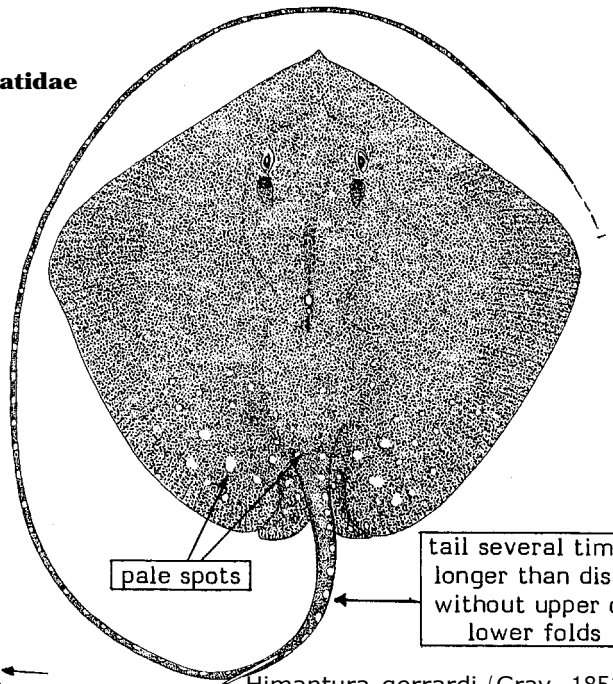
tail several times longer than disc, without upper or lower folds



underside of disc with a broad dark margin

Himantura bleekeri (Blyth, 1800)
Pittan (Sin); Uthar pittan, Gore dum (Bal)
size: to more than 100 cm (disc width)

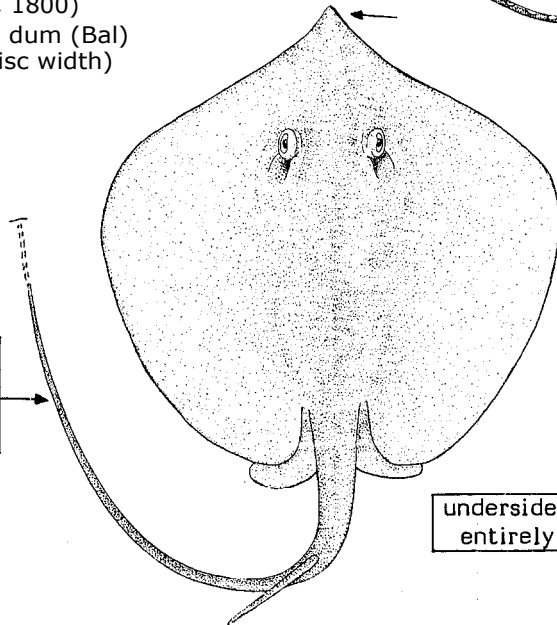
tail several times longer than disc, without upper or lower folds



pale spots

Himantura gerrardi (Gray, 1851)
Pittan (Sin); Uthar pittan (Bal)

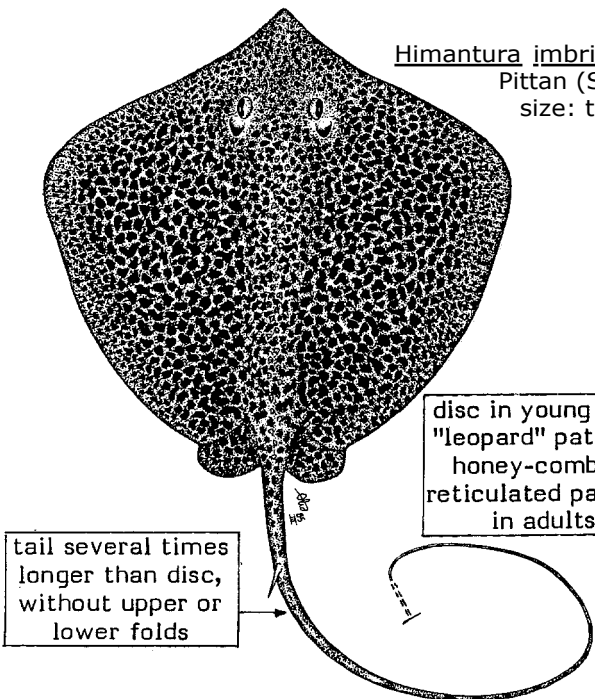
tail several times longer than disc, without upper or lower folds



underside of disc entirely white

Himantura imbricata (Bloch & Schneider, 1801)
Pittan (Sin); Uthar pittan (Bal)
size: to 25 cm (disc width)

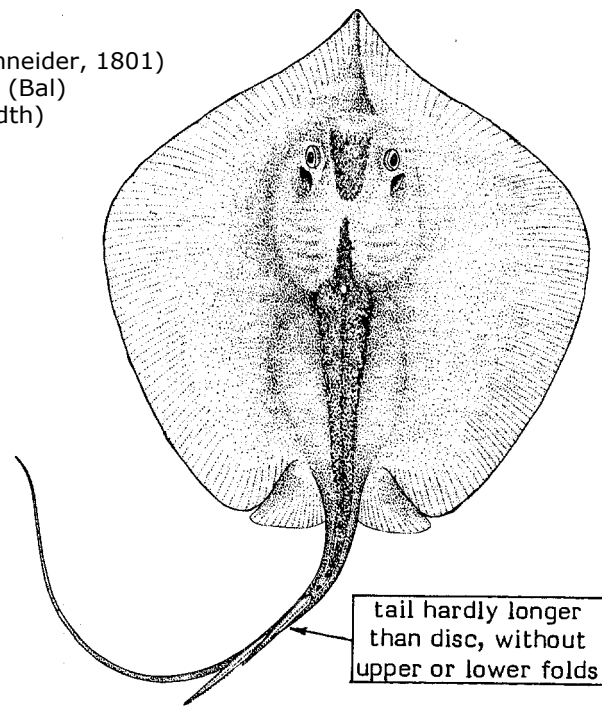
tail several times longer than disc, without upper or lower folds



disc in young with "leopard" pattern; honey-comb or reticulated pattern in adults

Himantura uarnak (Forsskål, 1775)
Pittan (Sin); Gara; Garamari (Bal)

tail hardly longer than disc, without upper or lower folds

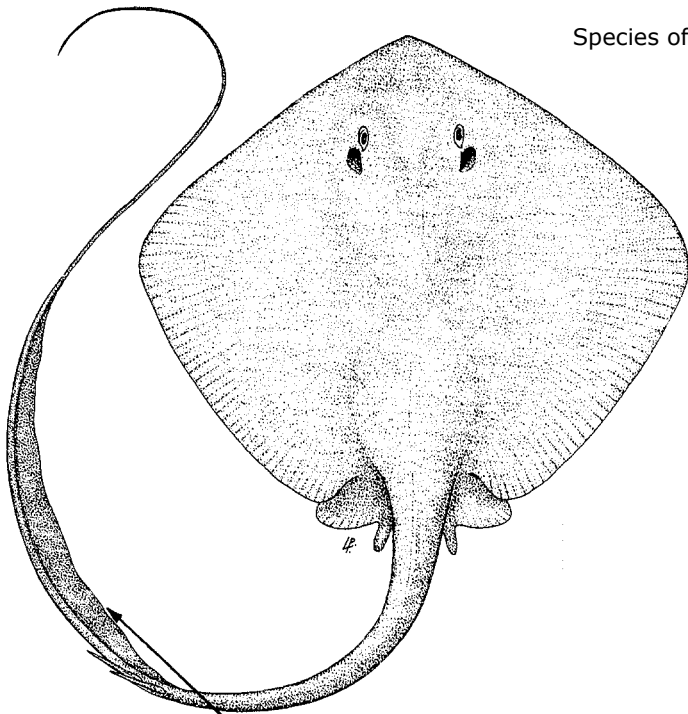


Himantura walga
(Müller & Henle, 1841)
Pittan (Sin); Uthar pittan (Bal)

BATOID FISHES

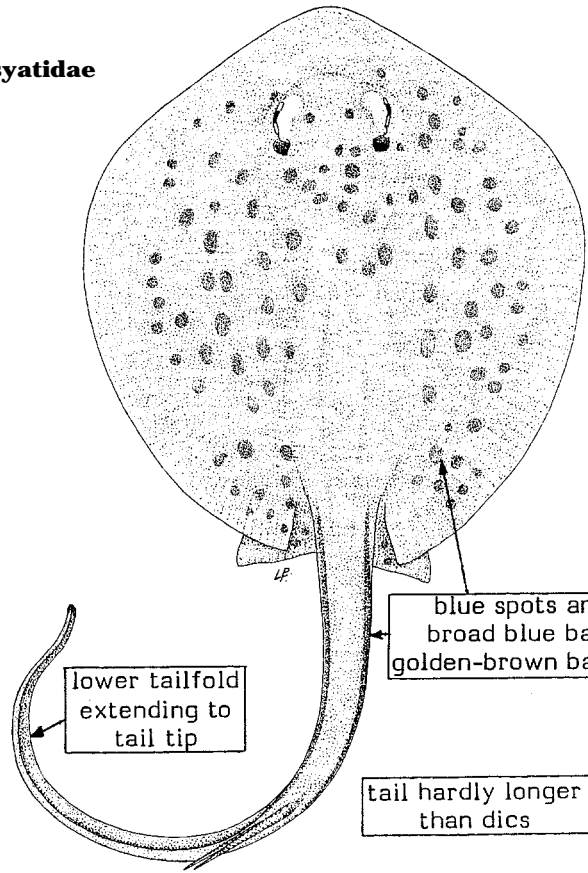
DASYATIDAE

Species of **Dasyatidae**



lower tailfold very prominent, its height 2 or 3 times the height of tail above fold

Hypolophus sephen (Forsskål, 1775)
Pittan (Sin); Pittan dum (Bal)

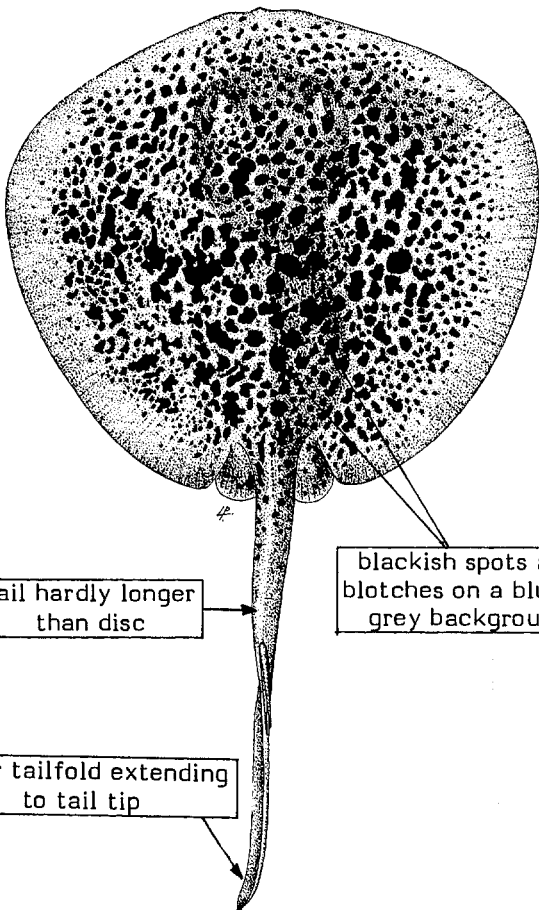


lower tailfold extending to tail tip

blue spots and two broad blue bands on golden-brown background

tail hardly longer than disc

Taeniura lymna (Forsskål, 1775)
Pittan (Sin); Pittan (Bal)

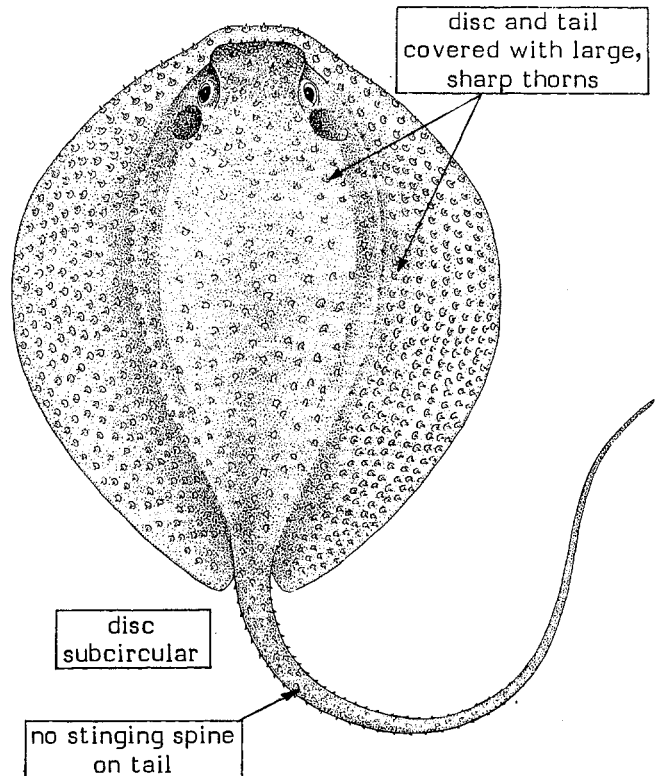


tail hardly longer than disc

blackish spots and blotches on a bluish-grey background

lower tailfold extending to tail tip

Taeniura melanospilos Bleeker, 1853
Pittan (Sin); Pittan, Limpni garamari (Bal)



disc and tail covered with large, sharp thorns

disc subcircular

no stinging spine on tail

Urogymnus asperrimus (Bloch & Schneider, 1801)
Pittan (Sin); Pittan (Bal)

BATOID FISHES

GYMNURIDAE

Loc. names : Pittan (Sin); Pappo (Bal)

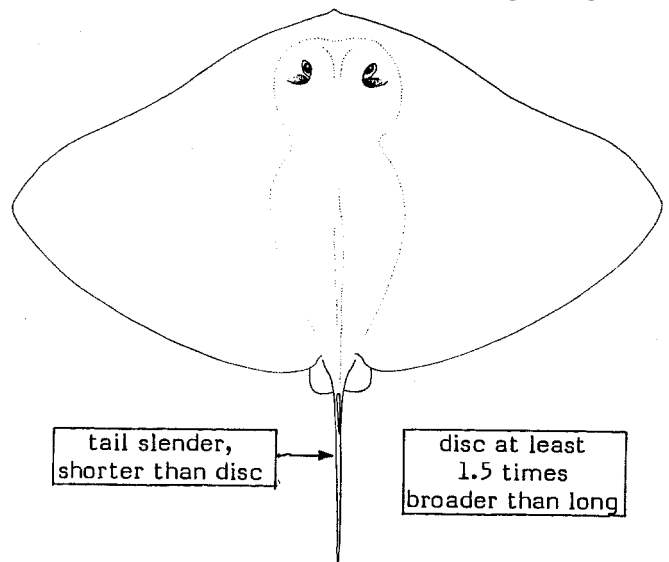
FAO names : En - Butterfly rays
Fr - Raies-papillon
Sp - Rayamariposas

Size : Max.: to more than 200 cm disc width

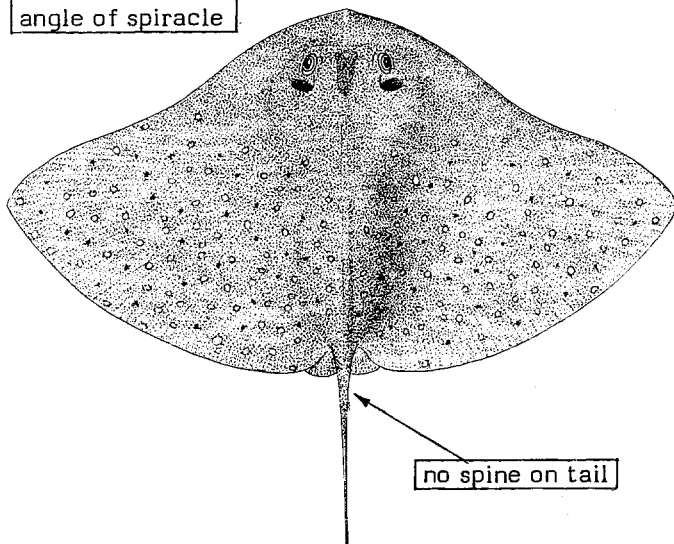
Fishing gear : Caught with lines and in bottom trawls

Habitat and biology : Usually found on sandy and muddy bottoms in shallow coastal waters, including estuaries and river mouths. Ovoviviparous, feed mainly on crustaceans and clams

Interest to fisheries : Not locally consumed, but dried for export or used for fishmeal

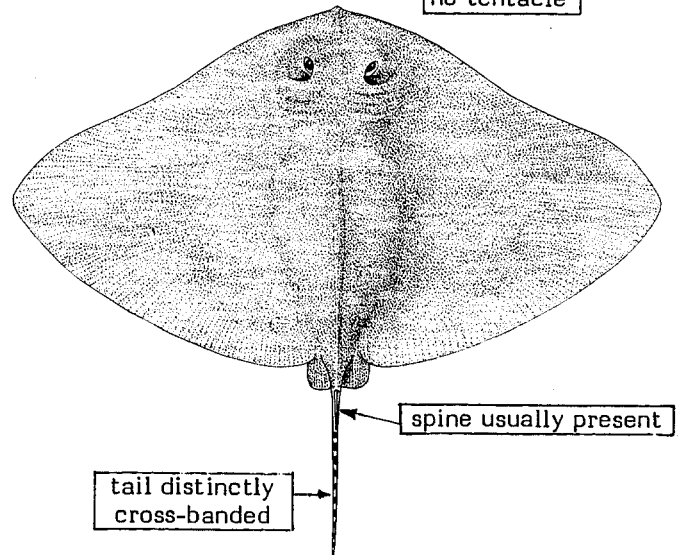


tentacle at rear angle of spiracle



Aetoplatea tentaculata Müller & Henle, 1841

no tentacle



Gymnura poecilura (Shaw, 1804)

Loc. names : Karunj (Sin); Kareenaij (Bal)

FAO names : En - Devil rays, mantas
Fr - Diables de mer, mantes
Sp - Diablitos, mantas

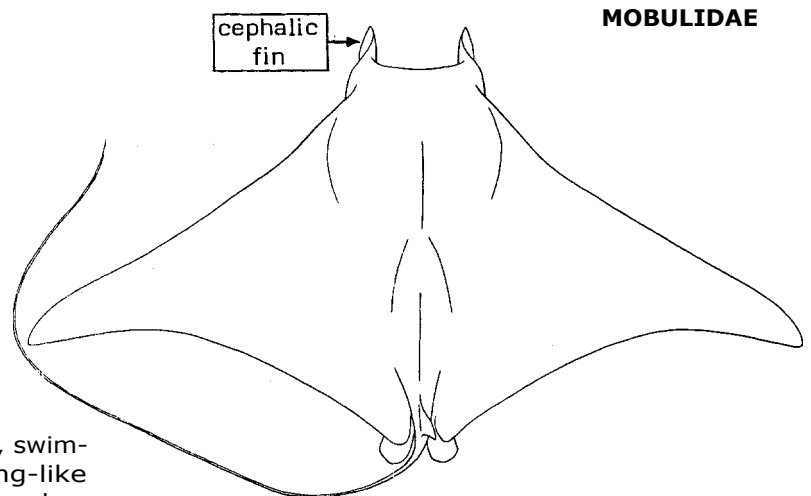
Size : Max.: over 700 cm disc width

Fishing gear : Caught with line gear, harpoons and in trawls. Larger specimens known to pull a boat for several miles when hooked or harpooned

Habitat and biology : Pelagic and highly migratory, swimming at the surface by flapping their large wing-like pectoral fins and occasionally leaping out of the water. Usually over the continental shelf. They are mainly planktonic feeders, but also feed on small schooling fishes. Ovoviviparous

Interest to fisheries : Not used for food but mainly for fishmeal. Oil is extracted from the liver and used for smearing boats

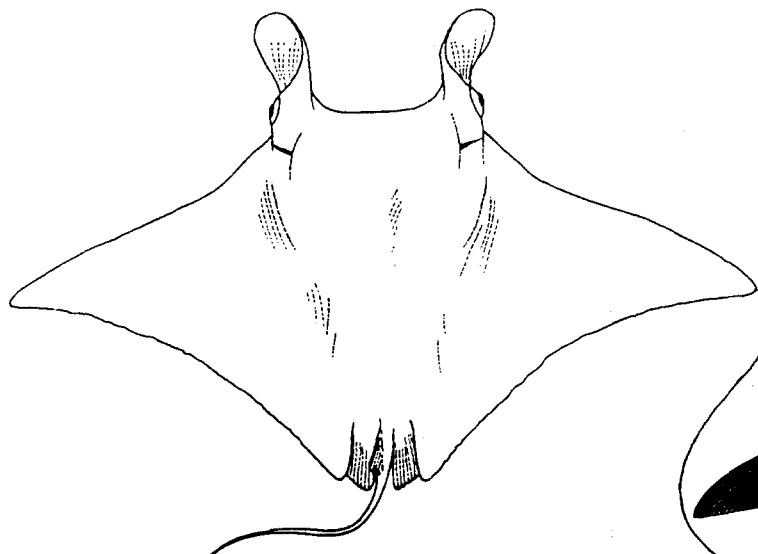
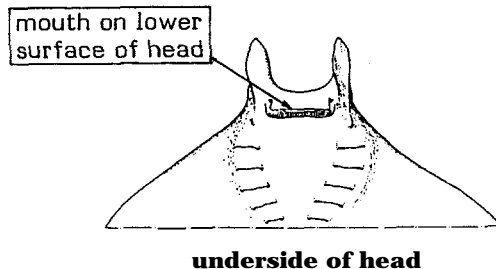
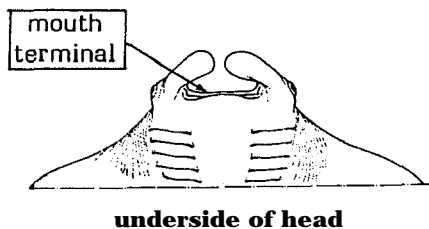
MOBULIDAE



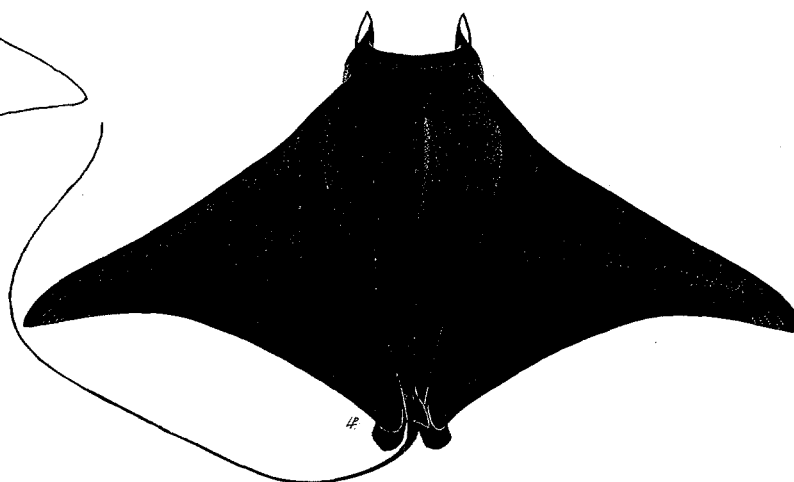
BATOID FISHES

Species of **Mobulidae**

MOBULIDAE



Manta species



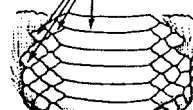
Mobula diabolae *
(Shaw, 1804)

* Mobula japonica (Müller & Henle, 1841) is also likely to occur in Pakistan. It can be distinguished from M. diabolae for the presence of a stinging spine at base of tail

a single series

7 series

MYLIOBATIDAE



Aetobatus Aetomylaeus, Myliobatis
arrangement of teeth in upper jaw

Loc. names : Karunj, Ghido (Sin);
Chombo, Mulla pittan, Golat pittan (Bal)

FAO names : En - Eagle rays
Fr - Aigles de mer
Sp - Aguilas, chuchos

Size : Max.: up to 250 cm disc width

Fishing gear : Caught with hook and line, harpoons and in trawls

Habitat and biology : Quick and active swimmers, capable of travelling long distances, usually over the continental shelf. All species are ovoviviparous and the newly-born closely resemble their parents. Although often observed leaping out of the water, they sometimes swim in groups close to the bottom where they feed on crustaceans and on hard-shelled molluscs

Interest to fisheries : Although species of this family are rather common and abundant, they are not locally used for food, but mainly processed fishmeal. The oil extracted from the liver is used for smearing boats

