

Demersal resources

Elasmobranchs

- This group consists mainly of sharks, skates and rays belonging to the families Carcharhinidae, Hemiscylliidae, Rhincodontidae, Sphyrinidae, Stegostomatidae, Hemigaleidae, Ginglymostomatidae, Triakidae, Pristidae, Myliobatidae, Dasyatidae and Gymnuridae.
- The maximum size in sharks ranges from 70 cm (*Rhizoprionodon oligoinx*) to 2000cm (*Rhincodon typus*), in skates from 270 cm (*Rhina ancylostoma*) to 656 cm (*Pristis microdon*) and in rays from 70 cm (*Dayatis kuhlii*) to 204 cm (*D. zugei*).

• Distribution-Global

They are distributed in the tropical, subtropical and temperate waters of the seas around the world.

Distribution-India

They are found distributed along both coasts from the near shore regions to oceanic waters. The commercial sharks are mostly found at depths varying from 15 to 150 m while the rays and guitar fishes are at 4-150 m.

Commercially important elasmobranchs

• Sharks

The dominant species of sharks are *Chiloscyllium indicum* (Slender bamboo shark), *C. griseum* (Grey bamboo shark), *Rhincodon typus* (Whale shark), *Stegostoma fasciatum* (Zebra shark), *Carcharhinus brevipinna* (Spinner shark), *C. dussumieri* (White cheek shark), *C. limbatus* (Black-tip shark), *C. macrotis* (Hard-nose shark), *C. melanopterus* (Blackfin reef shark), *C. sorrah* (Spot-tail shark), *Galeocerdo cuvieri* (Tiger shark), *Rhizoprionodon acutus* (Milk shark), *Scoliodon laticaudus* (Spade-nose shark), *Eusphyra blochii* (Wing-head shark), *Sphyrina mokarran* (Great hammer-head) and *S. zygaena* (Smooth hammer-head).

• Skates

Rhina ancylostoma (Bow-mouthed angel fish), *Rhinobatos granulatus* (Granulated shovel-nose ray), *Rhynchobatus djiddensis* (White spotted shovel-nose ray), *Anoxypristis cuspidata* (Pointed saw-fish) and *Pristis microdon* (Small-tooth saw fish).

• Rays

The important species are *Aetobatus narinari* (Spotted eagle ray), *Aetomylaeus nicholfii* (Nieuhof's eagle ray), *Rhinoptera javanica* (Javanese cow-ray), *Himantura uarnak* (Honey combed sting ray), *H. bleekeri* (Whiptail sting ray), *Dasyatis zugei* (Pale edged sting ray), *D.*

imbricatus (Schneider's scaly sting ray), *Amphotistius kuhlii* (Blue spotted sting ray), *Pastinachus sephen* (Drab sting ray/cow-tail ray), *Gymnura poecilura* (Long tail butterfly), *G micrura* (Short tail butterfly) and *Mobula diabolus* (Horny ray).

• **Production trend**

The catchable potential of elasmobranchs in Indian EEZ was estimated to be 64,934 t up to 50 m depth zone and 103,000 t from beyond 50 m.

- There have traditionally been important fisheries for elasmobranchs in India with a relatively steady growth up to the mid 70's, followed by a period of stability during most of the 80's, then a tremendous increase in catches in 1987 resulting in India becoming one of the top three elasmobranch producers.

• **Current fish production**

- Production of elasmobranchs in India in 2015 was 47242 t forming 1.2% of total marine fish production. Rays formed 52.7%, Sharks 42.5% and skates 4.8%.

- Gujarat and Daman & Diu accounted for 28.3% of the elasmobranch landings, Tamil Nadu & Puducherry, 23.7%, Kerala, 15.1%, Maharashtra, 12.2%, Andhra Pradesh, 11.7%, Odisha, 5.3%, Karnataka & Goa, 2.5% and West Bengal, 1.1%.

- Sharks dominated in west coast while rays in east coast.

• **Mode of Exploitation**

- Sharks are mainly taken with longlines, also as bycatch of trawlers using disco nets off Ratnagiri (Maharashtra), with bottom set gillnets in Tamil Nadu and by shrimp trawlers of Kerala.

- Rays are caught with bottom set gillnets in Gujarat, Kerala and Karnataka.

- Trawl nets accounting for 46.1%, gillnets 34.2%, hooks & line units, 4.6%, dolnets, 3.1% and seines and bagnets, 0.2% for the elasmobranch fishery in the year 2015.