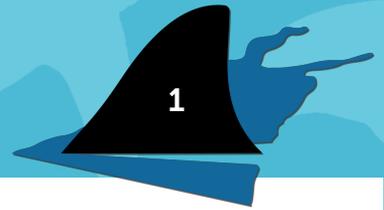


RED SEA SHARKS®

**Shark Monitoring
&
Species Information**

Egyptian Red Sea

INTRODUCTION



There are around 30 shark species roaming the Red Sea. Fishing pressure has (and has had) an impact of unknown magnitude on their populations, and – except for local laws and regulations regarding the Red Sea, e.g. in Egypt - no protective legislation for this body of water as a whole exists; despite the well-known facts that sharks are not only of critical importance to the balance of this unique marine environment, but also of immense economic value. Especially in the Egyptian Red Sea, sharks create significant revenues by attracting diving tourists to the area. Offshore reef-walls, such as Brother Islands and Daedalus Reef rank amongst the best places worldwide to meet sharks, e.g. the elusive Pelagic Thresher Shark (*Alopias pelagicus*) or the impressive Oceanic Whitetip Shark (*Carcharhinus longimanus*).

Red Sea Shark Monitoring Program

Trying to reach an optimal coverage, this project is calling upon divers and dive guides to help monitoring the shark populations in the Egyptian Red Sea. Your experience and ongoing daily activities in the water make you perfect volunteers, who can provide a wealth of information. All it will take for the guides is to be willing to spend a few minutes of your time to fill out the electronic log sheets after your day's diving and for all divers (guides and guests alike) to share their underwater images.

Generally, the guides are asked to document the sighting details for the different shark species they come across, including general information such as dive site, time and date, but also more specific environmental and behavioural data on e.g. observed courtship, mating, or the presence of juvenile sharks. Please document dives in the Marine Parks and at reef walls, where you don't encounter any sharks.

Provided that these monitoring efforts are sustained long-term, population dynamics and patterns of species distribution will emerge, hopefully improving the understanding of the sharks' ecological needs and the chances for effective protection and management of Red Sea sharks in the future. Please contact us if you are interested in helping us with the monitoring sharks here in Egypt.



Photo-Identification

Underwater photographs and videos of sharks are ideal, both for monitoring and photo-identification purposes. At least six shark species have suitable natural markings to allow for individual identification, potentially more.

The general idea is to make use of these natural markings documented on underwater images to identify and follow individual sharks. The ability to follow individuals over time provides valuable insights into shark movements, site fidelity, habitat use, behavior, intra- and inter-specific associations, and reproductive parameters.

So if possible, try to collect and store shark images taken on your trips, either by yourself or your guests. Please provide the date, the dive site and the name of the photographer with each photo or video. You can go to www.redseasharks.org to directly upload your pictures or encourage your guests to do so, or use dropbox or WeTransfer (email: elke@redseasharks.org).

There is an extensive database for the Oceanic Whitetip Shark in Egyptian waters already, containing around 1000 individuals. Since April 2010, additional catalogues for Silky Sharks and Grey Reef Sharks were created. Other species show potential for using the same method, so any picture could be valuable!

For more information on this project, go to www.redseasharks.org, our facebook page at www.facebook.com/RedSeaSharks, or contact me at: elke@redseasharks.org.

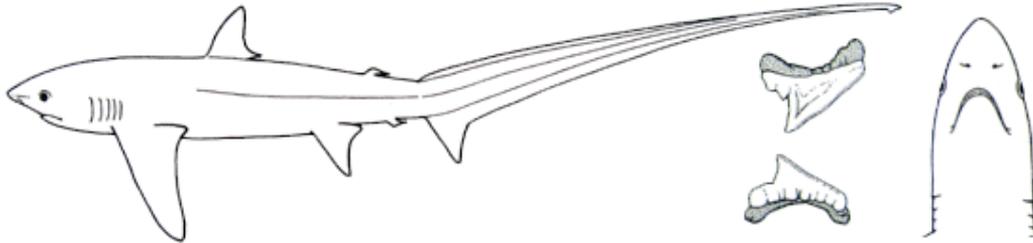
Dr. Elke Bojanowski
Biologist
Hurghada, Red Sea
January 2019

SPECIES IDENTIFICATION

3

1) Pelagic Thresher (*Alopias pelagicus*)

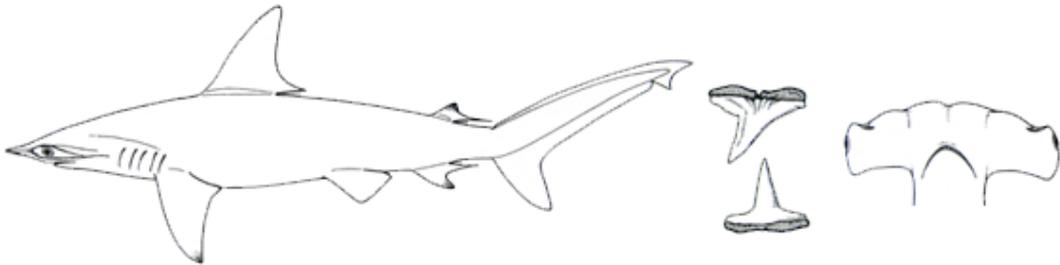
max. length: > 3.5 m; Oceanic shark, usually offshore, sometimes near coral reef drop-offs & seamounts. **Locally common.**



Upper tail lobe almost as long as the body, long pectoral fins, big black eyes and 'chubby' nose (see also Bigeye Thresher, # 27).

2) Scalloped Hammerhead (*Sphyrna lewini*)

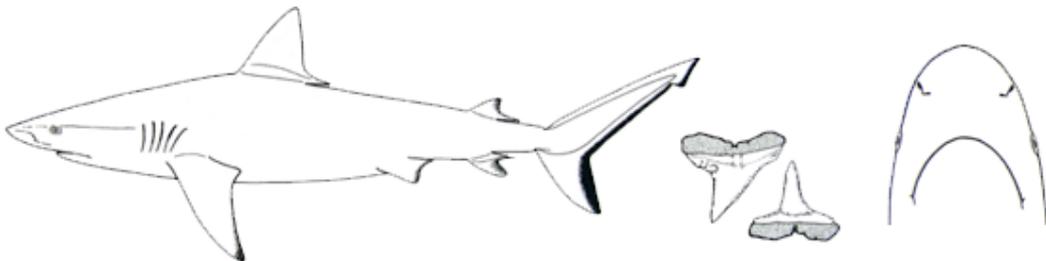
max. length: ~ 4 m; Next to islands and shelves over deep water, from the surface to > 275 m, often close inshore as well. **Common.**



High, triangular first dorsal fin, hammer curved with indentations in the leading edge (see also Great Hammerhead, # 14).

3) Grey Reef Shark (*Carcharhinus amblyrhynchos*)

max. length: ~ 2 m; Associated with coral reefs, near drop-offs, atoll passes with strong currents. **Common.**



Black marking all along the trailing edge of the tail, typically white tip/edge on first dorsal fin.

Pelagic Thresher (*Alopias pelagicus*)



Scalloped Hammerhead (*Sphyrna lewini*)



Grey Reef Shark (*Carcharhinus amblyrhynchos*)



4) Silky Shark (*Carcharhinus falciformis*)

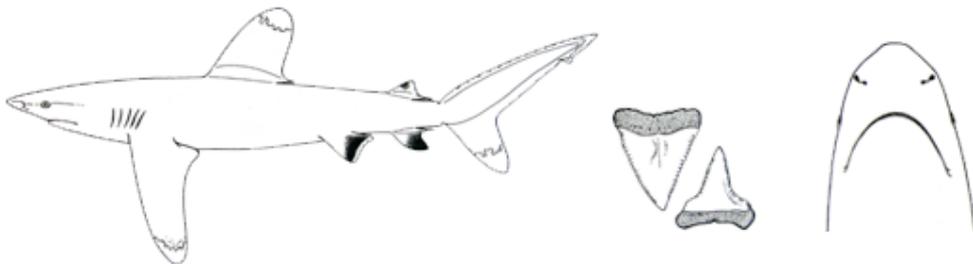
max. length: ~ 3.3 m; Open-ocean shark, prefers water > 200 m depth; **seasonally common** near offshore reefs & drop-offs in the area.



Slender shark with smallish, triangular & round-tipped dorsal fin, often metallic tinge to overall grey-brownish coloration.

5) Oceanic Whitetip Shark (*Carcharhinus longimanus*)

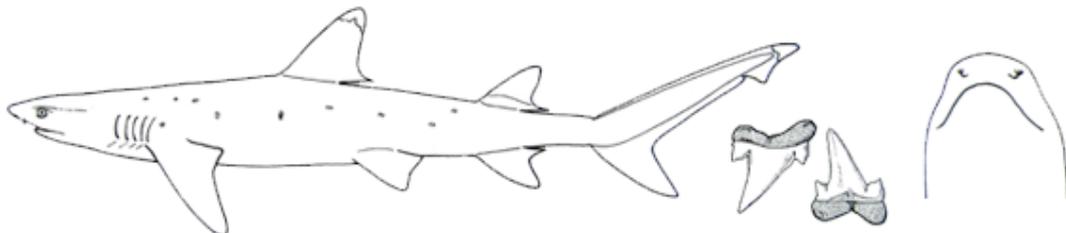
max. length: ~ 3 m (poss. up to 4 m); Open-ocean shark, usually found far offshore, **seasonally common** near drop-offs in the area.



Slender, grey to brown shark with big, rounded dorsal fin, long pectoral fins, a bluntly rounded snout, and white markings on most fin-tips

6) Whitetip Reef Shark (*Triaenodon obesus*)

max. length: ~ 2 m; Usually on or near bottom in crevices or caves in coral reefs, and in lagoons. **Common.**



Slender greyish-brown shark with white tips on at least first dorsal fin & upper tail lobe, and an individual spot pattern alongside the body.



Silky Shark (*Carcharhinus falciformis*)



Oceanic Whitetip Shark (*Carcharhinus longimanus*)

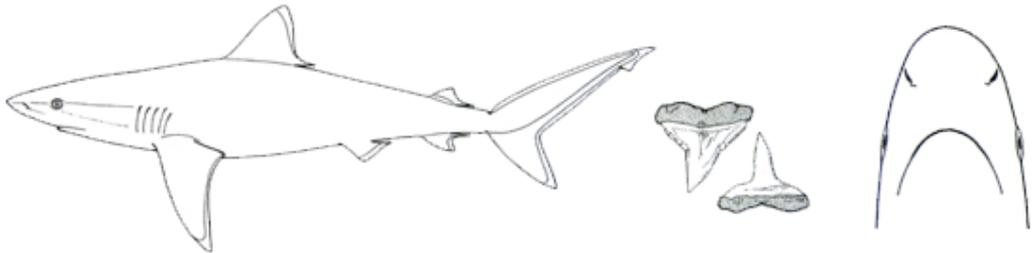


Whitetip Reef Shark (*Triaenodon obesus*)



7) Silvertip Shark (*Carcharhinus albimarginatus*)

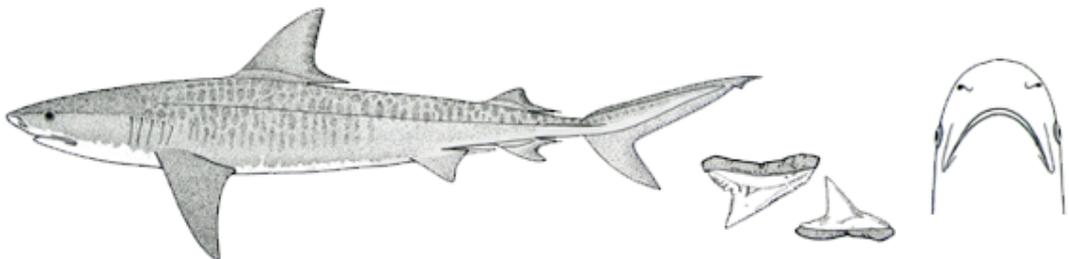
max. length: ~ 3 m; Associated with offshore islands, coral reefs and offshore banks, not oceanic. **Not common**, but occasionally sighted.



All fins with striking white tips and/or trailing edges, body rather stocky.

8) Tiger Shark (*Galeocerdo cuvier*)

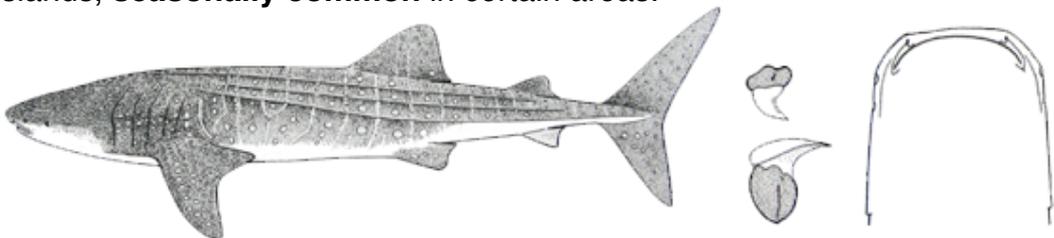
max. length: > 5.5 m; Found from the surface to 140 m depth, often close to coral reefs or in lagoons. **Rather uncommon**.



Broad, bluntly rounded snout and massive body with pattern of darker stripes and spots along the sides (fade with age)

9) Whale Shark (*Rhincodon typus*)

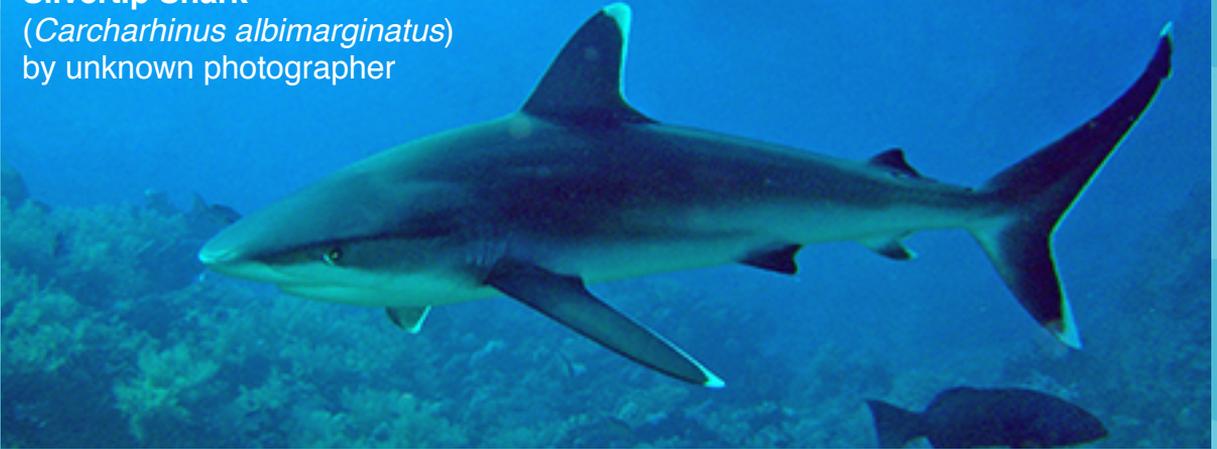
max. length: > 12 m; Open ocean to close inshore off beaches, coral reefs & islands, **seasonally common** in certain areas.



Broad head with almost terminal mouth, bulky body with prominent ridges on the back, and an individual pattern of white spots and stripes

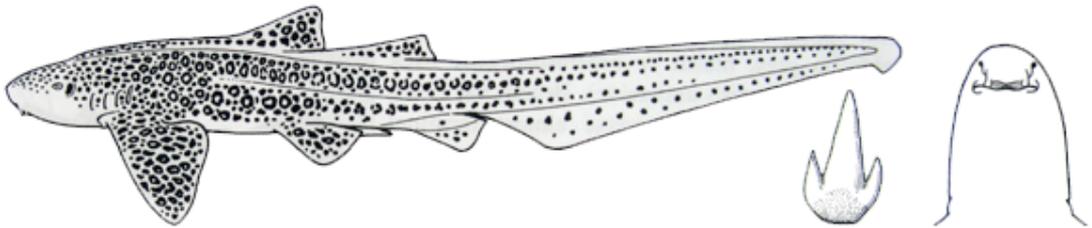
Silvertip Shark

(*Carcharhinus albimarginatus*)
by unknown photographer

**Tiger Shark (*Galeocerdo cuvier*)****Whale Shark (*Rhincodon typus*) by Dray van Beeck**

10) Zebra Shark (*Stegostoma fasciatum*)

max. length: < 2.5 m; On sandy bottom near coral reefs, in lagoons & channels (to 62 m depth), **locally common**.



Brown to sandy body coloration with darker brown spots (adults) or stripes (juveniles), ridges on the back, broad paddle-shaped pectoral fins and long upper tail lobe

11) (Oceanic) Blacktip Shark (*Carcharhinus limbatus*)

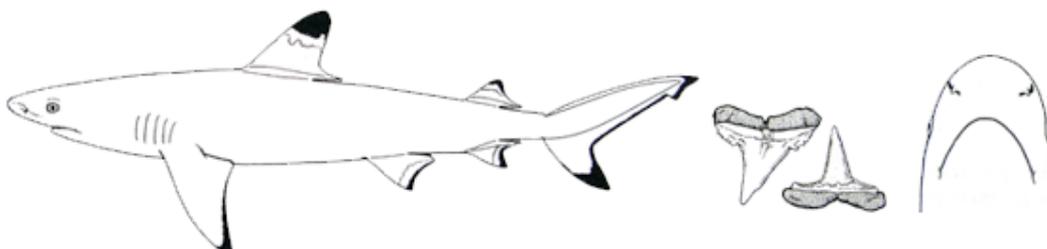
max. length: ~ 2.5 m; Usually close inshore, at coral reef drop-offs, in island lagoons, bays and estuaries. **Rather uncommon**.



Bulky shark with black tips on most fins, high first dorsal fin and long narrow pointed snout

12) Blacktip Reef Shark (*Carcharhinus melanopterus*)

max. length: < 2 m; Typically in very shallow water on coral reefs & reef flats, sometimes near reef drop-offs. **Locally common**.



Slender shark with prominent black tips/edges on all fins, brownish-grey body coloration, and a short rounded snout.

Zebra Shark (*Stegostoma fasciatum*)



(Oceanic) Blacktip Shark
(*Carcharhinus limbatus*)
by Dray van Beeck

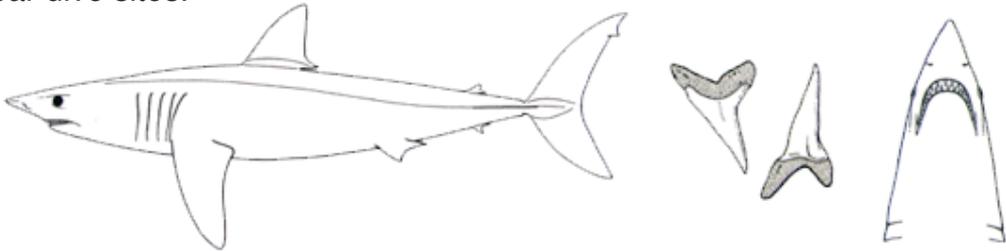


Blacktip Reef Shark (*Carcharhinus melanopterus*)
by unknown photographer



13) Shortfin Mako (*Isurus oxyrinchus*)

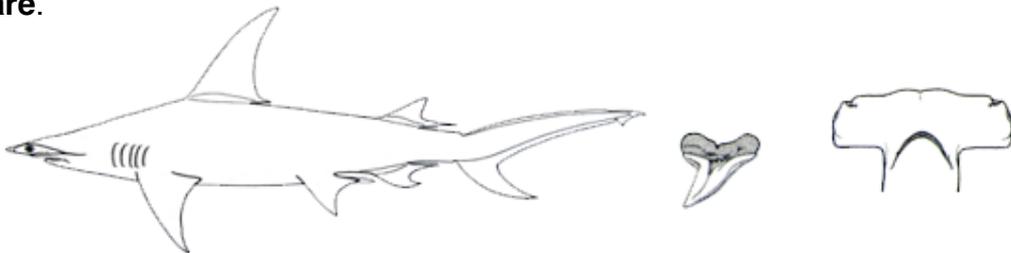
max. length: > 4 m; Coastal & oceanic, 0-500 m depth. **Rather uncommon** near dive sites.



Spindle-shaped body with long pointed snout & visible keels on both sides of the tail stock, symmetric tail and big black eyes

14) Great Hammerhead (*Sphyrna mokarran*)

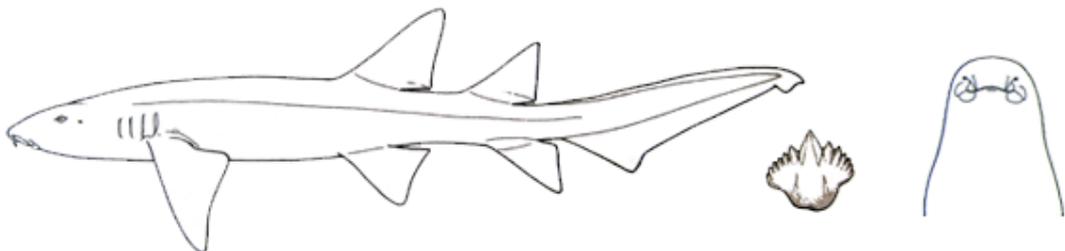
max. length: ~ 6 m; From close inshore to well offshore, 1 – 80+ m depth. **Rare.**



Extremely high, sickle-shaped dorsal fin, hammer almost straight with one single central indentation

15) Tawny Nurse Shark (*Nebrius ferrugineus*)

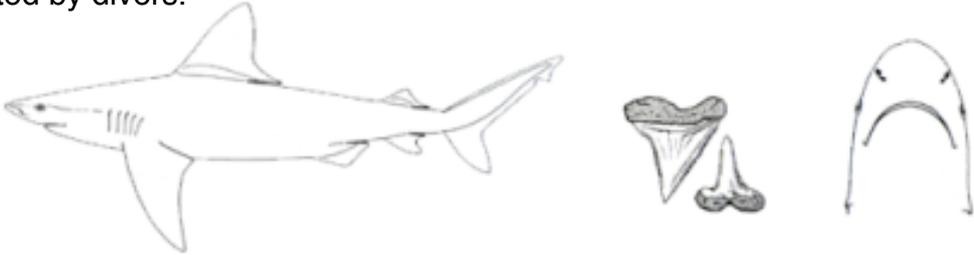
max. length: > 3 m; On or near bottom in sheltered areas (to 70 m depth, mainly 5-30 m). **Rare.**



Broad, flat head, barbules and light grey to white eyes, first dorsal fin far back on the brown body, and long upper tail lobe

16) Sandbar Shark (*Carcharhinus plumbeus*)

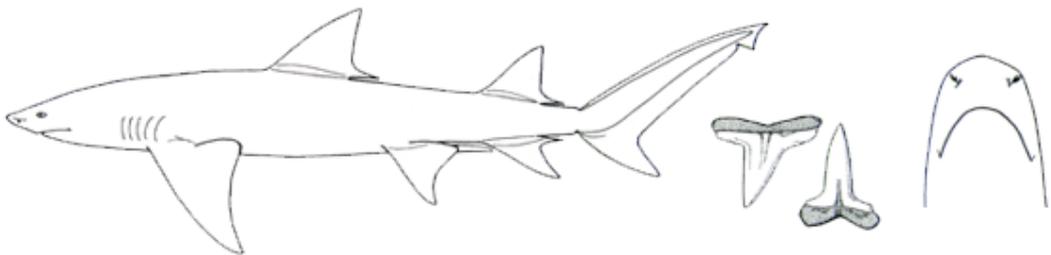
max. length: ~ 2.4 m; Usually in bays, harbours & river mouths, unlikely to be sighted by divers.



Bulky grey-brown or bronzy shark with no obvious markings, very large triangular first dorsal fin, and longish rounded snout.

17) Sicklefin Lemon Shark (*Negaprion acutidens*)

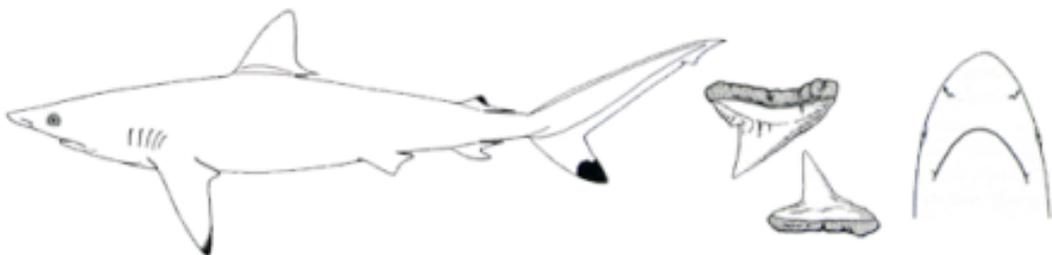
max. length: > 3 m; Inshore on or near the bottom (0 – 30 m depth). **Rare.**



Stocky yellowish shark with two triangular dorsal fins almost the same size, and a blunt snout.

18) Spottail Shark (*Carcharhinus sorrah*)

max. length: 1.6 m; Usually in shallow water & around coral reefs (20-50 m depth), unlikely to be sighted by divers.



Small, spindle-shaped greyish shark with large obvious black tip on lower tail lobe and pectoral fins.

19) Spinner Shark (*Carcharhinus brevipinna*)

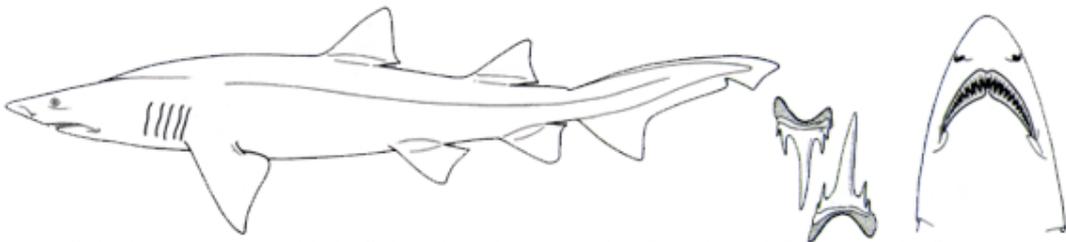
max. length: ~ 2.8 m; Usually close inshore (< 30 m depth) to at least 75 m, unlikely to be sighted by divers.



Most fins with obvious black tips, slender, long narrow pointed snout, and small pectoral & first dorsal fin.

20) Sandtiger Shark (*Carcharias taurus*)

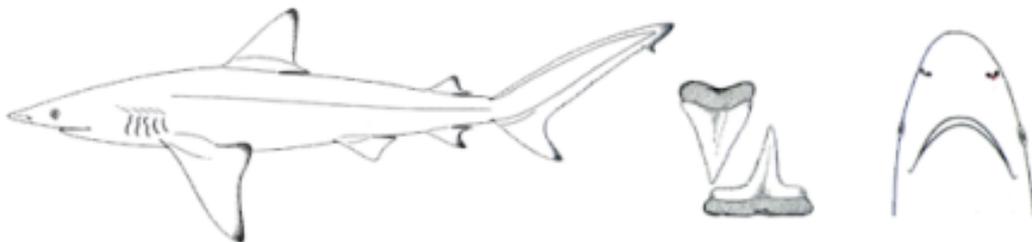
max. length: > 4.3 m; Coastal waters to offshore (mostly 15 – 25 m depth), associated with caves, gullies & reefs. **Rare.**



Heavy, light brown body with individual dark spots, the first dorsal fin far back, flattened snout and slender, pointed teeth

21) Bignose Shark (*Carcharhinus altimus*)

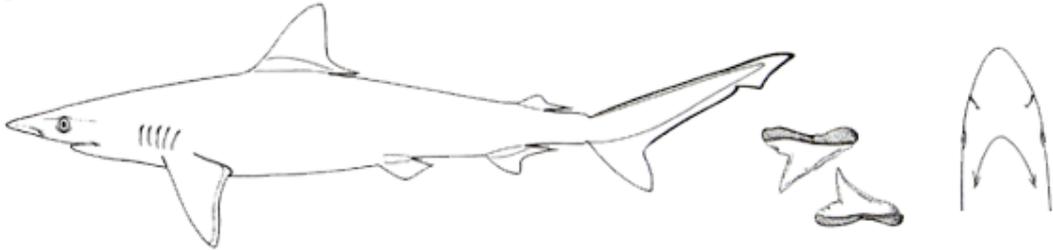
max. length: ~ 3 m; Poorly known species, regular presence in the Red Sea questionable..



Heavy, greyish body with large, long, broad snout, and no obvious markings but dusky fin tips.

22) Milk Shark (*Rhizoprionodon acutus*)

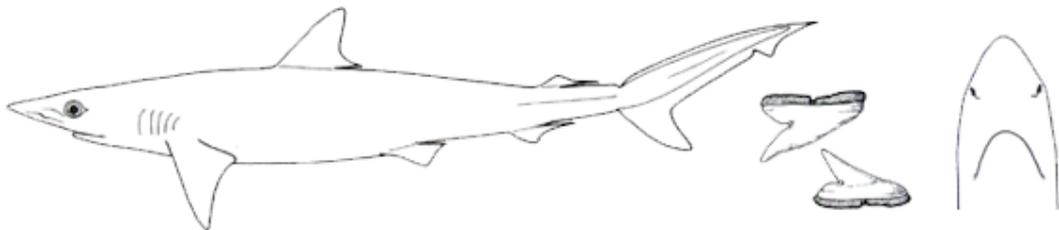
max. length: ~ 1.8 m (usually < 1 m); Poorly known species, unlikely to be sighted by divers.



Small bronze to greyish shark with long, narrow snout, big eyes and most fin tips slightly pale.

23) Sliteye Shark (*Loxodon macrorhinus*)

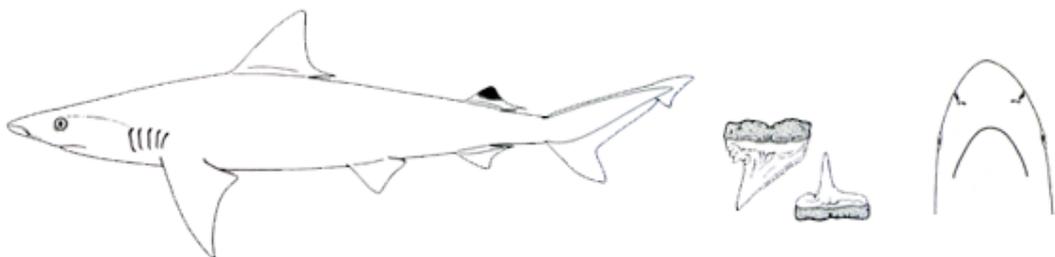
max. length: < 1 m; Poorly known species, unlikely to be sighted by divers.



Small, slender grey to brownish shark with long, narrow snout, and darker margins on first dorsal fin and tail.

24) Whitecheek Shark (*Carcharhinus dussumieri*)

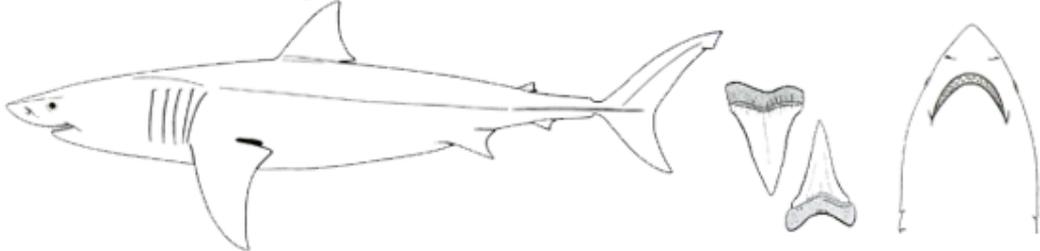
max. length: ~ 1 m; Poorly known species, regular presence in the Red Sea questionable.



Small, brown-grey shark with black or dusky spot only on second dorsal fin and fairly large eyes.

25) Great White Shark (*Carcharodon carcharias*)

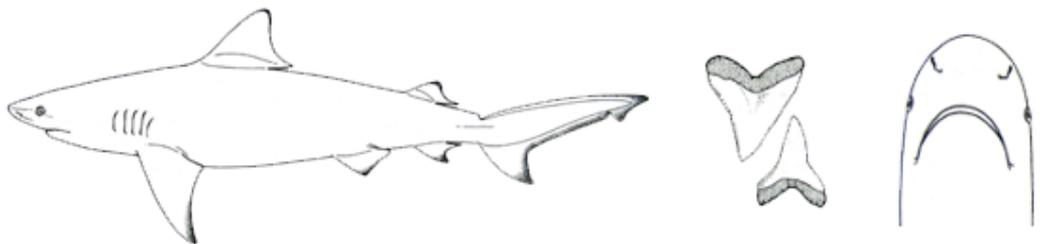
max. length: ~ 6 m; Very shallow water inshore to open ocean & oceanic islands, 0 – 1300 m, regular presence in the Red Sea questionable..



Heavy, spindle-shaped body, pointed snout, black eyes, large triangular first dorsal fin, strong keels on the tail stock and symmetric crescent-shape tail.

26) Bull Shark (*Carcharhinus leucas*)

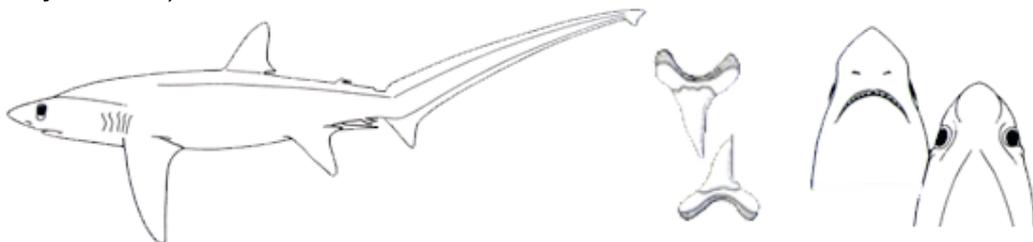
max. length: ~ 3.4 m; Usually close inshore in lagoons, bays, river mouths; regular presence in the Red Sea questionable.



Massive head & body with no prominent color markings on uniformly grey body, and broad triangular dorsal fin with pointed tip.

27) Bigeye Thresher (*Alopias superciliosus*)

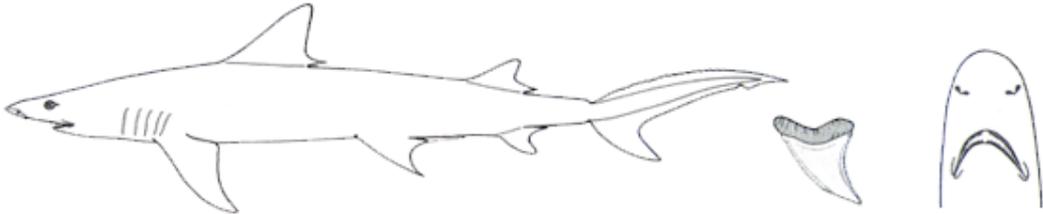
max. length: > 4.6 m; On or near bottom in sheltered areas (to 70 m depth, mainly 5-30 m). **Rare.**



Close inshore to open ocean, surface to > 500 m (mostly > 100 m), regular presence in the Red Sea questionable.

28) Snaggletooth Shark (*Hemipristis elongata*)

max. length: ~ 2.5 m; Poorly known species, unlikely to be sighted by divers.



Slender light grey or bronzy shark, a broad, rounded long snout, and no obvious markings.

29) Sicklefin Weasel Shark (*Hemigaleus microstoma*)

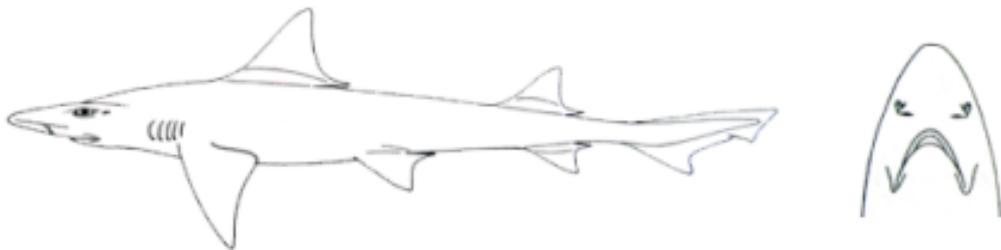
max. length: < 1 m; Poorly known species, unlikely to be sighted by divers.

no image - similar general shape to 28)

Small, slender, light grey or bronzy shark with a long rounded snout, white margins on all fins, and sometimes white spots on the sides.

30) Arabian Smoothhound (*Mustelus mosis*)

max. length: 1.5 m; Poorly known species, unlikely to be sighted by divers.



Slender, grey-brownish shark with short head & snout, and large, fairly close-set eyes.

31) Bigeye Houndshark (*Iago omanensis*)

max. length: ~ 0.6 m; Deep-water species (> 100 – 1500 m), unlikely to be sighted by divers.

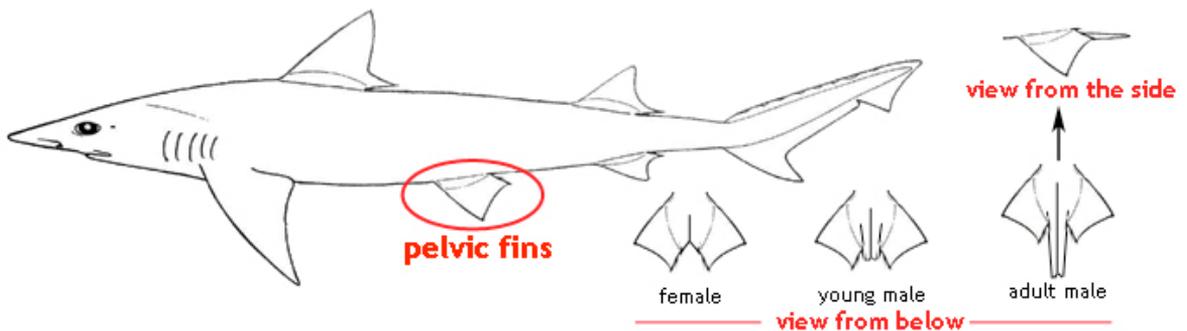
no image - similar general shape to 28)

Small, slender, greyish-brown shark, sometimes with darker dorsal fin margins, large eyes and large gill slits

GENDER IDENTIFICATION

17

To identify anything but almost fully grown males, you have to get a good look at the belly side of sharks. Details on how to differentiate between male & female sharks (and rays) are given below.



Identifying the sex of a shark/ray:

To identify the gender (or sex) of a shark, check for visible fin extensions (the **claspers**) between the pelvic fins. In females, there are none. In young males, they are only visible from below, while in older males, they extend well beyond the edges of the pelvic fins and are easily visible in the profile.

supported by:

