



Student Information Sheets

Glossary

All words in bold in the Information Sheets text are words that can be found in the glossary.

- **Abundance:** A very large quantity.
- **Acoustic tracking:** Sharks are tagged with a device that emits a high frequency sound that researchers are able to track from boats to follow the movement of the sharks even when they cannot see them.
- **Ambush predator:** An animal that sits and waits for prey to come close and then suddenly grabs the prey, rather than stalking or hunting for prey.
- **Ampullae of Lorenzini:** Organs possessed by all chondrichthyes that are used to sense electrical signals.
- **Anal fin:** A fin attached to the lower edge of a fish behind the anus.
- **Arnhem Land:** A region of northern Australia west of the Gulf of Carpentaria. Australia's largest Aboriginal reservation is there.
- **Bioelectric signals:** Weak electrical signals created by all animals.
- **Biology:** The science of life dealing with animals, plants and other living things.
- **Bony fish:** Fish that have a bony skeleton as opposed to the *cartilaginous fish*.
- **Bouyancy:** The ability to float.
- **Bycatch:** Fish and other animals that are caught by accident. Also called incidental catch.
- **Calcified/calcification:** Made harder and preserved by the formation of calcium salts.
- **Cartilage:** A soft skeletal material used instead of bones in *cartilaginous fishes* such as sharks and rays.
- **Cartilaginous fish:** Fish that have a skeleton made of *cartilage*, such as sharks, rays and chimaeras.
- **Cephalopods:** The group consisting of octopuses, squid, cuttlefish and nautilus; they have eight or more tentacles with suckers, soft bodies and can change colour very quickly.
- **Caudal fin:** The tail fin of a fish.
- **Cetaceans:** The group of marine mammals consisting of whales and dolphins; they breathe air, give birth to live young and suckle them on rich milk.
- **Chondrichthyes:** The group of fish that includes sharks, rays, skates and chimaeras.
- **Clan:** A division of a tribe tracing descent from a common ancestor.
- **Claspers:** male shark sex organs; a pair of long, narrow organs extending backwards from the *cloaca* underneath the body of male sharks.
- **Cloaca:** A hole underneath sharks that is used both for reproduction and excretion.
- **Commercial fishing:** Fishing for a commercial purpose – i.e. to sell.
- **Continental shelf:** The gently sloping undersea area surrounding a continent down to about 200 metres deep; at the edge of the continental shelf there is a steep drop to the ocean floor, this is the *continental slope*.
- **Continental slope:** The steep drop from the edge of the *continental shelf* (about 200 m) to the sea floor (down to about 2000 m).
- **Crustaceans:** The group including crabs, prawns, shrimps, lobsters and others; they have an external skeleton and jointed legs.

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- **Connective tissue:** Tissue that connects, supports and surrounds the internal organs.
- **Dermal:** Of the skin.
- **Demersal:** Living near to the bottom of the sea.
- **Denticles:** The tiny scales that cover the skin of sharks and rays.
- **Dorsal fin:** The fin on top of a fish's body.
- **EPBC Act 1999:** Environment Protection and Biodiversity Conservation Act 1999. A document stating the laws about protecting the environment and biodiversity.
- **Electrosense:** A sense which is able to detect pulses of electricity.
- **Estuarine:** The area where freshwater (usually from a river) and seawater meet.
- **Fecundity:** The capacity for producing offspring. An animal with high fecundity is able to produce many offspring.
- **Filter feeding:** Feeding on very small organisms by filtering the water through *gill rakers*.
- **Fish stock:** Fish of one species available for fishing, e.g. snapper stock.
- **Fishery:** a) one or more stocks or parts of stocks of fish that can be treated as a unit for the purposes of conservation or management; and b) a class of fishing activities in respect of those stocks of fish.
- **Fishing effort:** Amount of fishing taking place, usually described in terms of gear type and frequency or period for which it is in use.
- **Fishing gear:** Any equipment, implement, device, apparatus or other thing used for fishing. Includes rods, hand lines, nets and pots.
- **Food web:** A network of plants and animals that shows what eats what in an ecosystem.
- **Fusiform:** Rounded, elongated shape.
- **Gamefish:** An edible fish caught for sport.
- **Game fishing:** Fishing for sport.
- **Gender:** The sex of a creature, either male or female.
- **Genes:** Genes are made from units of DNA. They give organism particular characteristics, for example in humans, hair, skin and eye colour depend on our genes. Genes are the smallest hereditary unit; all living things get their genes from their 'parents'.
- **Genetic:** Relating to *genes*.
- **Gestation:** The time taken for the development of an embryo, from fertilization of an egg to birth.
- **Gill-rakers:** Cartilaginous projections that point forward and inward from the gill arches. They aid in the shark's feeding by preventing the prey from escaping between the gills – they act like a sieve.
- **Harvesting:** The act or process of gathering a crop.
- **Hypersaline:** More salty than the sea.
- **Incidental:** Occurring by chance or without intention.
- **Intra-uterine cannibalism:** An embryo eating other embryos in the same *uterus*.
- **Invertebrates:** Animals without a backbone.
- **Juvenile:** Adolescent; in between being a small, baby animal and being a fully mature adult.
- **Lateral line:** A row of sense organs on the side of all fish that respond to pressure changes in water.
- **Litter:** All the pups born at one time.
- **Managed fishery:** A fishery that is controlled in terms of how much is taken from it.
- **Mature:** Ready to mate.
- **Migratory:** Moving from one area to another, usually for feeding or breeding purposes and usually during particular seasons.

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- **Mineralisation:** Hardening by the deposition of naturally occurring substances.
- **Mollusc:** An invertebrate with a soft body and muscular 'foot', usually with a shell; the group of molluscs consists of snails, slugs, bivalves, chitons and *cephalopods*.
- **Mortality:** Frequency of death.
- **Niche:** The role an organism plays in a community and how it interacts with the environment.
- **Oesophagus:** The tube that takes food from the mouth to the stomach.
- **Olfactory:** Relating to the sense of smell.
- **Oophagy:** Embryos eat a supply of unfertilised eggs, which the female continues to produce during pregnancy.
- **Organism:** Any living thing.
- **Overfishing:** Fishing beyond a desirable, sustainable or 'safe' population or stock level.
- **Ovoviviparity:** The embryos develop inside eggs in the *uterus*, and then hatch inside the uterus before being born alive.
- **Pandanus trees:** A palm like tree or shrub with a crown of spiny leaves.
- **Pectoral fins:** Paired fins on the side of a fish.
- **Pelagic:** Living at or near the surface of the open ocean.
- **Pelvic fins:** Paired fins on the lower edge of a fish immediately behind the head.
- **Placoid scales:** Scales found on all *elasmobranchs*; they are made of pulp on the inside and covered with hard enamel on the outside, just like teeth. They are also called denticles.
- **Plankton:** Tiny plants and animals that live in the top layer of the open ocean and are transported by currents.
- **Population genetics:** Using *genes* (DNA) to see how different groups of the same shark species, and how different shark species are related.
- **Productivity:** The amount of biological matter produced by primary producers such as algae and seagrass that is available for use by animals.
- **Pup:** Baby shark.
- **Pupping grounds:** The areas where pregnant sharks give birth.
- **Ratio:** a relationship between two different numbers or quantities, where for every one of something there is another amount of something else. For example: for every one teacher, there are ten students.
- **Recreational fishing / fishers:** Fishing for personal use or for pleasure.
- **Sac:** biological material surrounding an organ inside animals.
- **Satellite tracking:** A shark is tagged with a complex electronic tag that can send data to a satellite. The information is then downloaded from the satellite by scientists.
- **Serrated barbs:** Tooth like spikes.
- **Shark-tagging:** A plastic tag is attached to a shark, or ray. The tag has a unique number on it to identify the individual shark and also a phone number. The shark or ray is released and if it is caught again, the fisher records the identification number and the location, and calls the phone number to report catching that shark.
- **Spearfishing:** Hunting for fish underwater. Spearfishers snorkel to find the fish and then use a large, specially designed spear to kill the fish.
- **Species:** Group of animals having common characteristics and able to breed together to produce fertile (capable of reproducing) offspring.
- **Spiracles:** Holes behind the eyes of rays and skates through which they breathe in (they breathe out through the gill slits under the body).
- **Sub-tropical:** Climate zone in between temperate and tropical.
- **Substrate:** The seafloor or other base on which other things grow or rest, e.g. shipwrecks, jetties.

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- **Supernatural:** Relating to existence outside the natural world.
- **Surf zone:** The area on a beach where waves form and crash onto the shore.
- **Tail stock or tail wrist:** The part of the body immediately before the actual tail.
- **Temperate:** Mild climates with cold winters and warm summers. The temperate zones of the ocean have a range of mild temperatures, warming up in summer and cooling down in winter.
- **Tendons:** Thick, white tissue that connects cartilage to bone.
- **Thunderheads:** large storm clouds.
- **Trawling:** Using a large net, weighted down, to scrape along the sea floor and catch everything.
- **Tropical:** Climates with hot, wet summers and warm, dry winters. The tropical zones of the ocean always have warm water.
- **Uterus:** The sac inside female animals, in which babies develop.
- **Uterine:** Of the uterus.
- **Venom:** Poison.
- **Venomous:** Poisonous.
- **Vertebrae:** The segments forming the spine in *vertebrates* (plural; vertebra is singular).
- **Vertebrates:** Animals with a backbone.