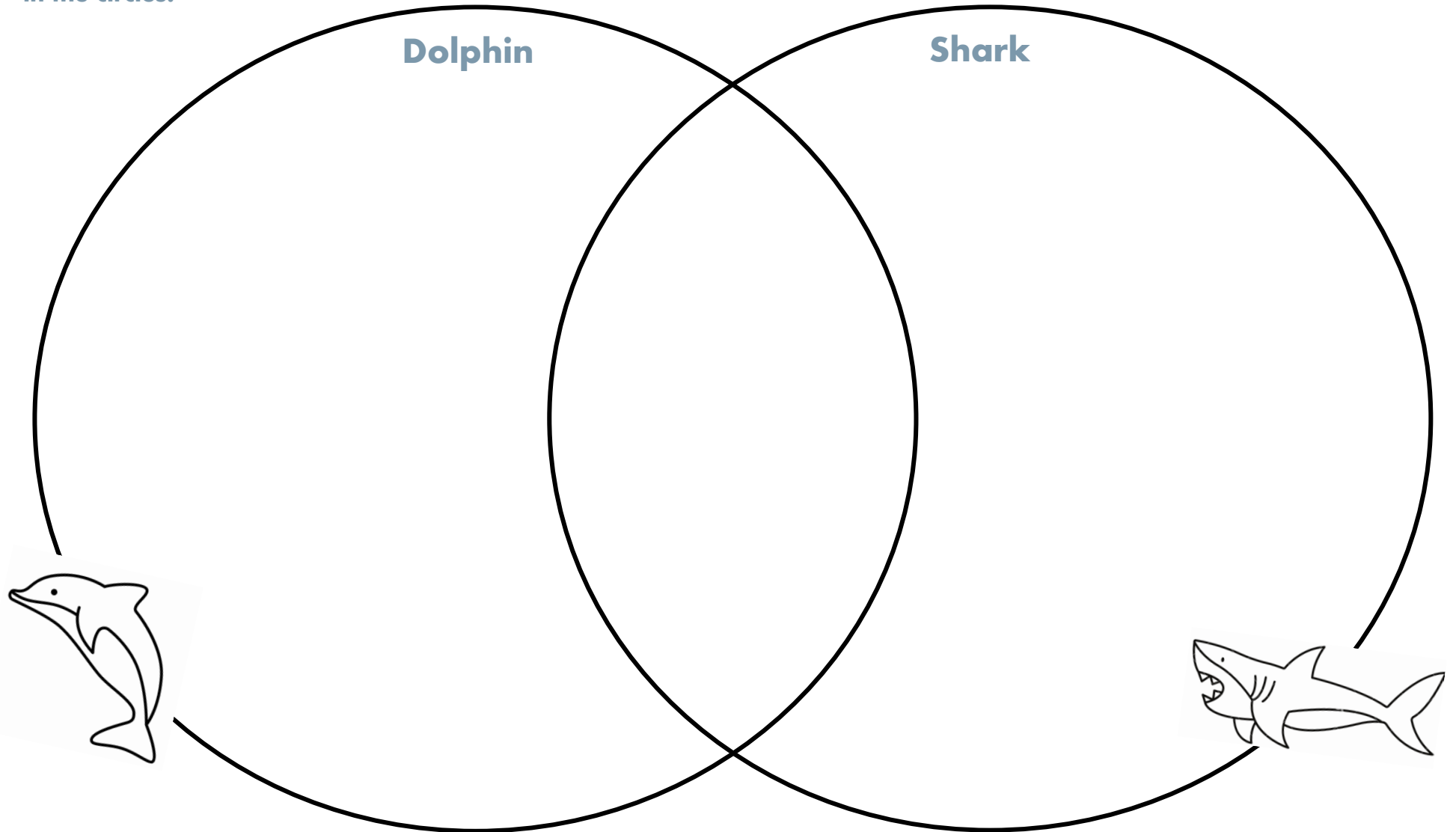


## Mammals and Fish

Marine animals can be sorted into many different animal groups. Even though they look similar, dolphins are marine mammals, and sharks are a type of fish. Use the circles below to list what sharks and dolphins have in common in the middle, and what is different about them on either side. Use some information found on the Patawalonga Dolphin Trail signs or do some research to fill in the circles.



## Mammals and Fish

### Classification

Classification is the grouping of living things based on their similarity. This can be done in different ways. Taxonomy is the grouping of living things based on shared characteristics like body features or life cycles. Animals and plants can also be grouped based on how closely they are related.

Animals can be sorted into two large groups: vertebrates and invertebrates. Vertebrates are animals with a backbone, and invertebrates are animals without a backbone. Scientists estimate that around 95% of animal species are invertebrates.

Invertebrates also make up most of the animal life in our oceans.



Australian sea lion. Photo: Sharon Sharp



Indo-Pacific bottlenose dolphin. Photo: Marianna Boorman

### Marine mammals

Mammals are a group of animals that:

- are warm-blooded
- give birth to live young
- feed their young milk
- have hair or fur
- are vertebrates.

Mammals have lungs, breathe air and may live on land or in water. Marine mammals usually live close to the surface of the water so they can take a breath. Marine mammals include dolphins, whales, seals, sea lions, otters and dugongs.

Dolphins are cetaceans which means they belong to the same mammal group as whales. They have a blow hole on the top of their head used for breathing. Dolphins have cone-shaped teeth and use echolocation to hunt for fish and squid. They have three fins and one tail fluke. Their tail fluke moves up and down when they swim, which helps them surface to take a breath.

Sea lions are also commonly seen marine mammals. You can sometimes see them floating in the water with one flipper in the air. If you see this, they aren't in distress. They are using their flipper to help control their temperature.

True seals have no ear flaps and have backwards-facing back flippers, which means it is hard for them to come up onto land. Sea lions and fur seals have little ears and outward-facing back flippers. These are the type usually seen bathing on rocks or under jetties.

## Fish

Fish are a group of animals that:

- are cold-blooded
- can lay eggs or give birth to live young
- usually have scales
- use gills to breathe using water
- are vertebrates.

Freshwater fish live in creeks, rivers and lakes, while marine fish live in our oceans. Fish can sometimes move between fresh and salt water as a part of their life cycle.

Many fish swimming in our rivers and oceans are bony fish and have a skeleton made of bone like humans. Fish can have very different shapes and colours and are specially adapted to their habitat, so they have the best chance of survival. Seahorses, eels, pufferfish and tuna are all examples of bony fish.

Sharks and rays are also a type of fish. However, their skeleton is not made up of bone, but of cartilage instead. This is the same substance inside our ears and the end of our nose, and makes sharks and rays lighter and more flexible. They also have between 5 and 7 gill slits compared to just one in bony fishes.

Sharks usually have 8 fins, including the caudal or tail fin which moves side to side to help push them through the water. They generally have triangular-shaped teeth to catch slippery fish and can grow back their teeth if they lose one. There are over 400 kinds of sharks and, depending on their favourite food, they can have small or flat teeth.



Smooth toadfish. Photo: Sascha Schultz



Port Jackson shark. Photo: Mark Norman