

Watching Whales



Information guide



Department of Biodiversity,
Conservation and Attractions



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WATCHING WHALES

Rules and tips

In recent years, whale watching along Western Australia's coastline has become an increasingly popular pastime with tourists and locals alike.

Steeped in myth and mystery, whales have fascinated people for thousands of years; Jonah survived, according to the Bible, in the belly of a whale, and the tale of Moby Dick continues to enthral.

Whales range in size and weight from the 31-metre blue whale, the world's largest weighing between 80 and 130 tonnes, to the 2.4-metre dwarf sperm whale, weighing about 150kgs

They are divided into the toothed whales (for example sperm and killer whales) and the baleen whales (such as humpbacks). Toothed whales feed on squid, fish and sometimes marine mammals. Mostly, baleen whales sieve planktonic organisms from the water. All are air-breathing, warm-blooded mammals that give live birth and nurse their young.

They have streamlined, smooth-surfaced bodies, no external ears, flippers like forelimbs for steering and manoeuvring, very few hairs, and a layer of insulating blubber. These characteristics make them ideally suited to their marine environment.

RULES FOR WHALE WATCHING

- Only operators with vessels licensed by DBCA are to run commercial vessel tours involving whale watching.
- People on private vessels (including everything from surfboards and kayaks to yachts and launches) do not require whale watching licences, but must adhere to these rules and guidelines governing whale watching.
- Helicopters are not permitted to fly within 500m of a whale, except with special authorisation. Aircraft other than helicopters, including drones, are not permitted to fly within 300m of a whale.
- Swimming with, feeding or touching whales is not permitted, except as part of a licensed tour. If you are in the water and a whale approaches, you must endeavour to keep a minimum of 100m distance between yourself and the whale.
- Any marine vessel, whether powered by a motor, paddle or sail that is within a distance of 300m from a whale is within the whale's contact zone.

The following special rules apply within the contact zone:

1. *A vessel must not cause a whale to alter its direction or speed of travel.*
2. *A vessel must not disperse or separate a group of whales.*
3. *A vessel, whether under power or drifting, must not approach a whale from a direction within an arc of 60 degrees of the whale's direction of travel or an arc of 60 degrees of the whale's opposite direction of travel (see Figure 1).*
4. *A vessel must not approach a whale within a distance of 100m (except licensed 'RESEARCH' vessels in particular circumstances).*
5. *Where a whale approaches a vessel and the distance between the whale and the vessel becomes less than 100m, the vessel master must switch off its motors or move the vessel away at a speed of less than 5 knots.*
6. *A vessel must not block the direction of travel of a whale, or any passage of escape available to a whale, from an area where escape is otherwise prevented by a barrier, shallow water, vessel or some other obstacle to the whale's free passage.*



THE HUMPBACK

The humpback whale (*Megaptera novaeangliae*) is aptly named from the Greek 'mega' meaning 'great' and 'pteron' meaning 'a wing', because of its huge winglike flippers. It is the fifth largest of the great whales. Adult females can grow to 19m, slightly longer than adult males. A mature humpback may weigh 40 tonnes.

Humpbacks are generally blackish with white underneath and at the sides. The flippers or pectoral fins are mottled on top and white below. The underside of the tail fluke usually is white with black patterning, by which each animal can be identified. Jaws and flippers often carry large barnacles.

Knobby protuberances on the head are called tubercles, each with a long coarse hair growing from its centre, which is believed to act as a sensor like a human hair.

Status

The humpback whale's status is conservation dependent, and has been protected from whaling in the southern hemisphere since 1963. Since then, the eastern Australian population is estimated to have reached about 20,000 animals, while the population in WA now numbers more than 30,000 animals. Both groups spend summer in the Antarctic, where they are believed to live separated from each other, although some limited exchange may occur between them.

SOUTHERN RIGHT WHALES

Southern right whales (*Eubalaena australis*)—so named because they were the 'right' whales to harpoon when killing was lawful—are about the size of a bus, weigh up to 80 tonnes and can be as long as 18m.

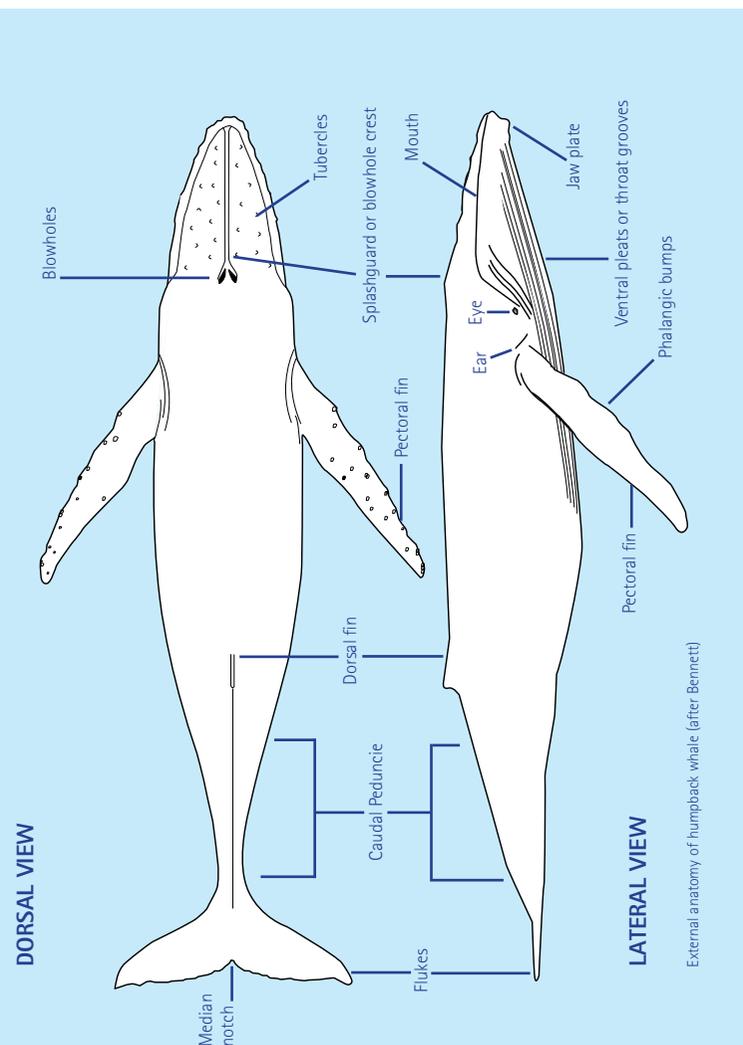
Although huge they are also agile and active. They are a common sight between Perth and Esperance and can be seen at most beaches in between.

Horny growths called callosities form on the top of the head, behind the blowhole, on the chin, above the eyes and on the lower lip. Their function is unknown but they are useful identifiers for researchers.

Their heads are a quarter of their body length, and they have triangular flat flippers.

Status

Southern right whales are classed as vulnerable and inhabit cooler waters. Once hunted extensively by man, with more than 100,000 harvested for illumination oil and baleen around Albany in the nineteenth century, their population has recovered and is growing at seven per cent each year.



External anatomy of humpback whale (after Bennett)

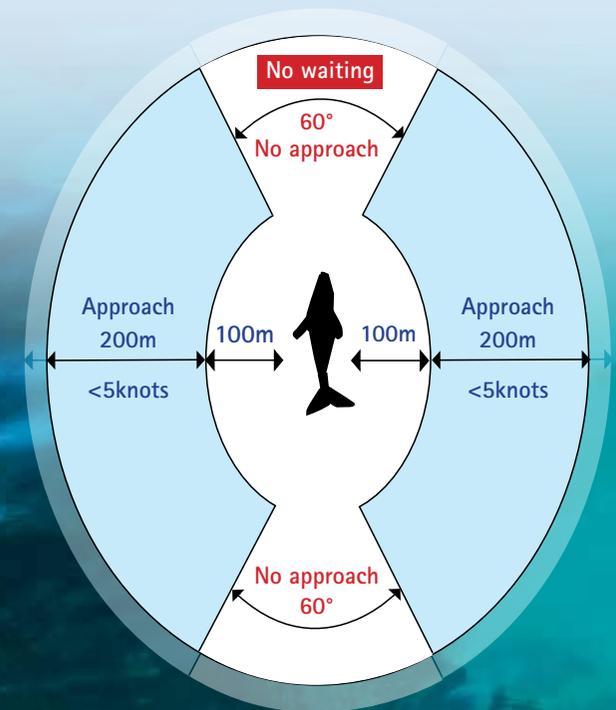
WHALE WATCHING TIPS

A commercial whale watching industry was established in the waters off Perth in 1989. This industry is based on south-bound migrating humpbacks from September to late November, when they can be seen in the area with great regularity.

The interest in whale watching has expanded, with charter vessels now operating from Albany, Broome, Exmouth, Denham, Kalbarri, and Geographe Bay. The Albany-based operation principally focuses on the southern right whale.

Midday, when the sun is directly overhead, is the best time to observe whales from the land or air. The weather rather than time of day affects conditions for whale watching from a boat.

Whales are intelligent, sensitive mammals. The rules for whale watching in this brochure have been prepared to encourage enjoyable and safe whale watching from boats, at the same time protecting these 'gentle giants'.



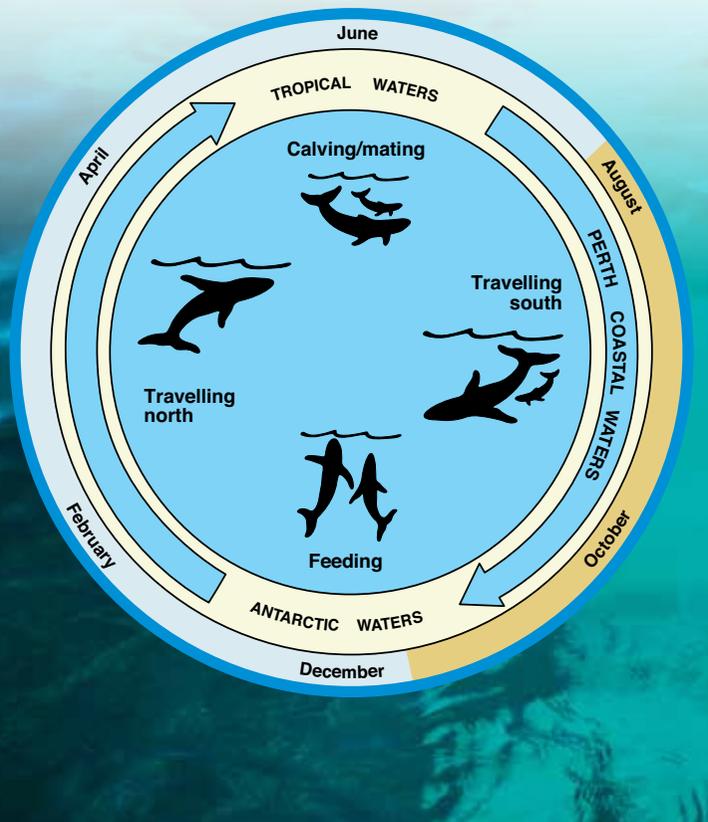
MIGRATION

Each winter, beginning about late April to early May, the Australian humpbacks leave Antarctica to migrate northwards to their tropical calving grounds along the west and east coasts of Australia.

About August, they begin travelling south to their feeding grounds in the polar waters of the Antarctic, so the first whales can be seen passing through Perth waters from early spring.

The first groups to be seen heading south are usually the newly pregnant females, followed by the immature whales of both sexes, then the mature males and females. Mothers with new-born calves stay longest, and travel more slowly, enabling the calves to grow rapidly and develop a thicker layer of blubber for protection in the cold feeding waters they will soon be visiting for the first time.

Southern right whale cows give birth to their young close to shore in colder waters south of Perth before returning on their journey south.



FEEDING

Australia's humpback whales spend the summer in the waters of Antarctica feeding on krill and other small organisms. Humpbacks are filter feeders, straining their food from the water by means of hundreds of horny baleen plates hinged on their upper jaws. These have bristle edges, which mesh to form a filter.

A humpback can consume nearly one tonne of food each day. They feed when large concentrations of prey are available. Humpbacks don't feed while in the calving grounds, but might catch an opportunistic feed or two between calving and feeding grounds. Southern right whales feed on plankton.

BREEDING

Humpbacks mate and give birth in warm tropical waters with new research showing that some mating occurs in Perth waters.

Courtship can appear playful, with much surface activity. Several males may compete for a single female.

Females are pregnant for 11 to 12 months. When they are born, calves are more than 4m long and weigh more than one tonne. The mother's milk is the consistency of chewing gum and has a 35 per cent fat content (human milk has two per cent fat) and milk production can be as high as 600L per day. The suckling calf can gain more than 45kg a day during the first few weeks of life. Nursing ends at about 11 months when the calf is about 8m long.

Successful reproduction and nurturing over the first year are critical to the ongoing recovery of the population. Minimising impacts on mother-calf pods is a key component in helping that recovery.

Southern right whales calve every three years. Calves are up to six metres long and weigh one and half tonnes.

COMMUNICATION AND SONG

Sound generally travels three times faster and further under the water than in the air, which makes it an ideal medium for communication. While all whales are able to emit sounds, the humpback seems unique in the diversity of vocalisations it produces. Some of the sounds of humpbacks are organised into repeating patterns, which are described as 'songs'.

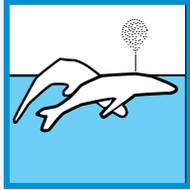
Singing seems to be done mainly by males in the breeding season. Singers seem to prefer to suspend themselves head down about 20m below the surface of the water. Their eyes remain closed, their tails point skywards and their pectoral fins slowly move forward and back. A singing whale typically stays down for 15 minutes or so.

Songs change within and between seasons and are some of the longest and most varied of the animal kingdom.



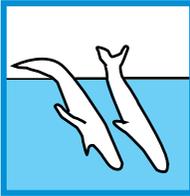
BEHAVIOUR

An adult humpback's two lungs, each the size of a small car, are emptied and refilled in less than two seconds. Contrary to the drawings on ancient maps, the whale does not blow a stream of water. As it surfaces, the humpback exhales through two blowholes in the top of its head. This exhalation is expelled and cooled so rapidly it forms a distinctive cloud. Southern right whales lob their tails, slap their flippers and breach. They are usually in mother-calf pairs but they occasionally congregate in groups of up to 20.



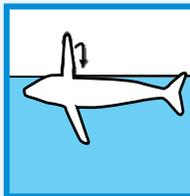
Round out

After inhaling through the blowhole, the humpback begins to dive by arching its body and rolling ahead. The name 'humpback' comes from this regular action, which is called a round out.



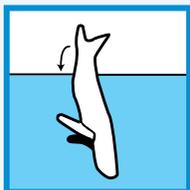
Fluke up/fluke down dive

In a fluke up dive, the tail flukes will be brought straight up in the air, exposing the whole lower surface, showing the unique markings found on each whale. In a fluke down dive, the flukes are brought clear of the water, but remain turned down.



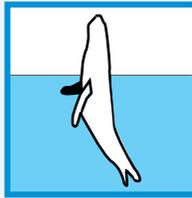
Pec slap

Humpbacks and southern right whales frequently roll at the surface, slapping their pectoral fins against the water. This behaviour is called a pec slap.



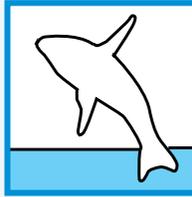
Tail slap

Tail slapping occurs while most of the animal is submerged and near vertical.



Spy hop

Spy hopping occurs when the whale rises almost straight out of the water so its eyes clear the surface. It may then turn 90-180 degrees on its longitudinal axis, then slip back below the surface.



Breach

The most spectacular behaviour is the breach. The whale propels most of its body from the water, then turns to crash back to the surface.



RESEARCH

The identification of individual whales is one important way to determine movement patterns, life histories and social interactions of individual whales as well as the groups in which they are found. Each whale can be identified by the coloured patterns on the underside of its fluke (tail).

Researchers have begun photographing tail flukes for identification and tracking of animals off Perth and Dampier. Their research work will contribute to the information on migration, distribution, reproduction and current population status, to help ensure that appropriate conservation measures are taken.

Research vessels are specifically licensed and identified with the word 'RESEARCH' affixed to the vessel. Research vessels may approach whales more closely than public or commercial vessels, but only when it will not unnecessarily disturb whales.

REMEMBER

If whales are diving for prolonged periods or swimming evasively, you are disturbing and upsetting them. Leave them alone. It is an offence to harass whales, and they may permanently abandon an area if frequently disturbed.



MORE INFORMATION

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Information current at August 2017.
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