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The rules for whale watching:

- Only persons with vessels licensed by CALM are to operate commercial vessel tours involving whale watching.
- Persons 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.
- Aircraft are not permitted to fly within 300 metres of a whale, except by special authorisation.
- Swimming with, feeding or touching whales is not permitted. Such actions may cause stress to the whale and are dangerous to people. If you are in the water and a whale approaches, you must endeavour to keep a minimum of 30 metres distance between yourself and the whale.
- Any marine vessel, whether powered by a motor, paddle or sail that is within a distance of 300 metres 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° of the whale's direction of travel or an arc of 60° of the whale's opposite direction of travel (see Figure 1).
- 4. A vessel must not approach a whale within a distance of 100 metres (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 100 metres, the vessel master must place its motor or motors in neutral or move the vessel at less than five knots away from the whale until the vessel is outside the contact zone.
- 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.
- 7. A vessel master must abandon any interactions with a whale at any sign of the whale becoming disturbed or alarmed.

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 continually disturbed.

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WATCHING WHALES





and Land Management



Watching Whales

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

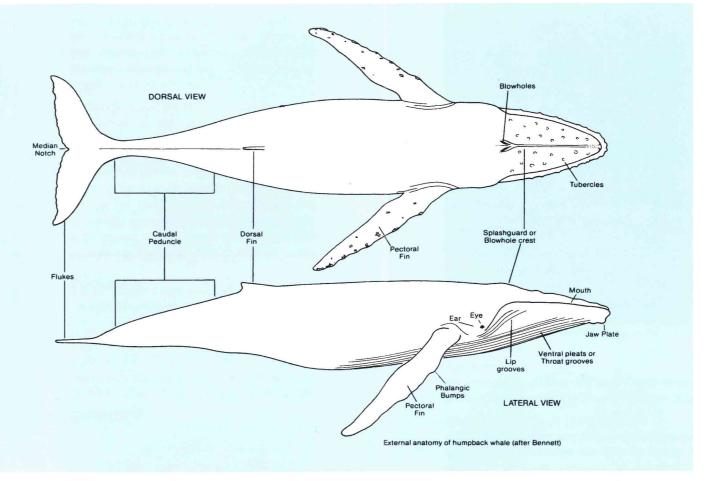
Whales range in size and weight from the 31-metre blue whale, the world's largest, weighing between 80 and 130 tonnes, to the 2.4-metre dwarf sperm whale, weighing about 150 kilograms.

They are divided into the toothed whales (e.g., sperm and killer whales) and the baleen whales (like 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.

The Humpback

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



40 tonnes. Humpbacks are the most commonly encountered whales on the west coast.

Humpbacks are generally dark grey to black 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 is a vulnerable species, which has been protected from whaling in the southern hemisphere since 1963. Since then, the eastern Australian population is estimated to have reached about 1500 animals, while the population in Western Australia now numbers about 3000–4000 animals. Both groups spend summer in the Antarctic, and are thought to be continuing to increase their population size at around 10 per cent per annum.

Migration

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

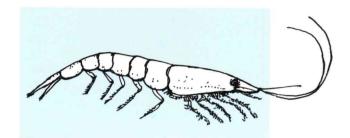
About August, they begin travelling south to their feeding grounds in the polar waters of the Antarctic, so the first whales can be seen passing through Perth waters from early spring.

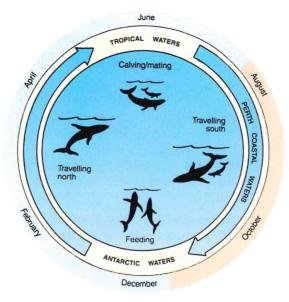
The first groups to be seen heading south are usually the newly pregnant females, followed by the immature whales of both sexes, then the mature males and females. Mothers with newborn calves stay longest, and travel more slowly, enabling the calves to grow rapidly and develop a thicker layer of blubber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

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.





Breeding

To date, it has generally been believed that humpbacks both mate and give birth in warm tropical waters. Recent field observations, however, suggest that some mating may occur in Perth waters.

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

Females are pregnant for 11–12 months. When born, calves are more than four metres 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 600 litres per day. The suckling calf can gain over 45 kilograms a day during the first few weeks of life. Nursing ends at about 11 months when the calf is about eight metres long.

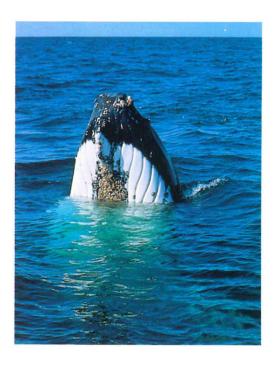
Successful reproduction and nurturing over the first year are critical to the ongoing recovery of the population. Minimising impacts on mothercalf pods is a key component in helping that recovery.

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 20 metres 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 in 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.

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**.

FlukeUp/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 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 information on migration, distribution, reproduction and current population status, to help ensure that appropriate conservation measures are taken.

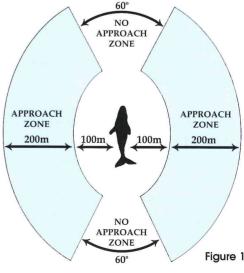


Research vessels are specially licensed and identified with the word 'RESEARCH' affixed to the vessel. Research vessels may approach whales more closely than public or commercial vessels, but only when it will not unnecessarily disturb whales.

Whale watching tips

In August 1989, a commercial whale-watching industry was established in the waters off Perth. This industry is based on southbound 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, Karratha and Geographe Bay. The Albany-based operation principally targets the southern right whale (*Eubalaena australis*), which calves and mates off the south coast. The right whale is also being seen in slowly increasing numbers in west coast waters.



Whales are intelligent, sensitive mammals. The following code has been prepared to encourage enjoyable and safe whale watching from boats, at the same time protecting these 'gentle giants'.