

Australian Fur Seal

Arctocephalus pusillus doriferus

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Australian fur seals

All seals belong to a group of mammals called *pinnipeds*. Fur seals are *otariids* (eared seals) that have tiny ears and use both pairs of flippers when 'walking' on land, unlike *phocids* (true seals) who have internal ears and can't use their rear flippers for 'walking'.

The Australian fur seal is the largest of eight species of fur seal in the world. They have two layers of fur, a longer outer layer of guard hairs and a fine underfur for warmth.

Habitat

Australian fur seals reside throughout the islands of Bass Strait, Tasmania, South Australia, southern Victoria and southern New South Wales where they find rocky islands to haul up and breed on. Seal Rocks lies 1.8 km off Phillip Island and provides an important breeding area and nursery for around 30,000 Australian fur seals (approximately 25% of the total population). At any given time there will be between 5,000 to 8,000 seals on Seal Rocks. After seven to ten days fishing, they return to the colony to rest for two or three days. The number of seals seen at Seal Rocks varies with time of year, tide, temperature, time of day and weather. For example, if conditions are rough at sea more seals come ashore to rest, but in calm and hot weather more seals go swimming.

Diet

Seals spend their days swimming, rolling and diving for octopus, squid, cuttlefish and fish. If prey is too large to swallow, they will take it to the surface where they will toss it around, tearing off pieces of flesh with their teeth. Australian fur seals have excellent underwater vision and can dive to 200m, spending a lot of time feeding on the bottom of the ocean. It is thought they are able to detect vibrations from prey with their sensitive whiskers.



Statistics

Male (Bull)

Length: 200 – 225cm

Weight: 220 – 360kg

Life span: 15-18 years

Female (Cow)

Length: 125 – 170cm

Weight: 36 – 110kg

Lifespan: 20 years

Newborn (Pup)

Length: 73cm

Weight: 7- 8 kg

Breeding

Seal pups are born in late spring (end of October – mid-December), with each cow producing one pup. A week after giving birth, she mates and becomes pregnant again for the next 12 months. Pups are born with a soft, black lanugo coat that is not waterproof. They typically stay on land until they are a few weeks old, when they begin to play in the rockpools and shallows. Pups spend more time in the water as they moult into their silver waterproof fur. They are dependent on their mother's milk until they are eight to ten months old. The female alternates between feeding at sea and resting ashore while feeding her pup. When the cow is at sea feeding, the pup remains at the colony. As it gets older, the pup spends a lot of time swimming and playing with other pups, learning the skills to survive independently. Usually by 10 to eleven months, the pups are weaned and they must catch their own food.

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It's a seal's life

Female seals mature at three or four years of age and may raise a pup every year until they die. They generally spend up to 11 months feeding their pup, but in some cases they will continue feeding both a new pup and juvenile at the same time. This means she may have to spend more time fishing to provide enough milk for both young. Males mature when they are about six years of age but are not big enough to hold breeding territories until around nine years of age. During the non-breeding months, males will travel long distances on foraging trips, building up their size. They need to ensure they are big enough to return



to the colony and hold a territory against other bulls that may challenge them. Groups of females that congregate in these territories are known as harems, and bulls mate with the females within that harem. A bull holding a territory might not get to feed for over 50 days. He must conserve his energy, resting and sleeping when he can. Males that cannot hold territories are called bachelors and will sometimes challenge a bull for his territory. To defend his territory, the bull mostly just glares or snorts at a challenger. Sometimes he may have to show his teeth or stand up and show how big he is. On rare occasions, when the challenger keeps coming, the bull and challenger can have a fierce fight, with a lot of savage biting of one another. Such fights require a lot of energy and do not happen very often.

The Year at Seal Rocks

October

Females go on long foraging trips, big males return to joust for territories. A large breeding male may attract up to nine females to become his 'harem'.

November

Females return and give birth to a single pup, on average there may be about nine females per single territorial male. Start of peak pupping in late November.

December

Peak of pupping continues through early December. Males will mate with the females in their 'harem'. In late December the breeding season ends and the large breeding males leave Seal Rocks.

January

Pups learn to swim, females undertake short trips returning to suckle pups.

February

Pups growing strong and their fur begins to turn brown.

March

Moulting begins, many seals rest ashore for long periods.

April to July

Pups growing strong, seals coming and going. The pup has its new silver coat, is waterproof and able to spend more time in the water.

August

Pups learning to catch fish for themselves.

September

Pups starting to be weaned from their mother's milk.



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A hard life on the rock

In the early 1800s seals were hunted throughout the Bass Strait region including Seal Rocks. Sealers became the first Europeans to live in Victoria in order to pursue the seals. By 1825 these sealers had all but decimated the seal population at Seal Rocks. For over a century seals suffered at the hands of the occasional hunting party and fishermen who perceived the seals as a threat to their productivity. To protect a dwindling seal population, the government created a wildlife reserve at Seal Rocks in 1928, killing seals was banned in Victorian waters in 1975. It has taken a long time for the Australian fur seal population to become healthy again and they are still recovering from this exploitation.

Threats to the fur seals

Natural threats to the Australian fur seal include predators such as orcas and large sharks, as well as the dangers of living in one of the roughest bodies of water in the world, Bass Strait. Young pups or juveniles can be washed off rocks or battered against them in rough weather. Human threats can include overfishing, outboard motor strikes, climate change, toxic water pollutants and marine debris.



Research

Since 1966, small research teams have visited Seal Rocks to study the seals' reproductive behaviour and diet with many tagged for identification. Phillip Island Nature Parks continues to study their diet and foraging behaviour using methods like movement tracking devices and scat analysis. Population levels are obtained from annual pup counts, with RPAs (drones) being a modern tool used. Rates of entanglement in marine debris of the Australian fur seal at Seal Rocks are also monitored, with researchers regularly helping these seals by removing entanglements.

Phillip Island Nature Parks are continuously looking



into ways to ensure that the Australian fur seal population at Seal Rocks remains healthy. You can help by simply making sure that rubbish goes into the bin rather than entering our waterways. Reducing the impact of marine debris in the ocean not only helps our Australian fur seals, but all marine life.

References:

- Hume, F., Arnould, J.P.Y., Kirkwood, R.J. & Davis, P. (2001) Extended maternal dependence by juvenile Australian fur seals (*Arctocephalus pusillus doriferus*). *Australian Mammalogy*,
- Arnould, J.P.Y. & Hindell, M.A. (2001) Dive behaviour, foraging locations, and maternal-attendance patterns of Australian fur seals (*Arctocephalus pusillus doriferus*). *Canadian Journal of Zoology*,
- *Information has been sourced from the Research Department of Phillip Island Nature Parks and its resources

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I have small ears that I use to listen both underwater and in the open air. I can find my pup by its call amongst thousands of others. I use my nose to smell its scent to make sure it is my pup.

My eyes are adapted to see underneath the water. I have large, dark eyes which allow me to see in the depths of the ocean where it can be very dark, even during the day.

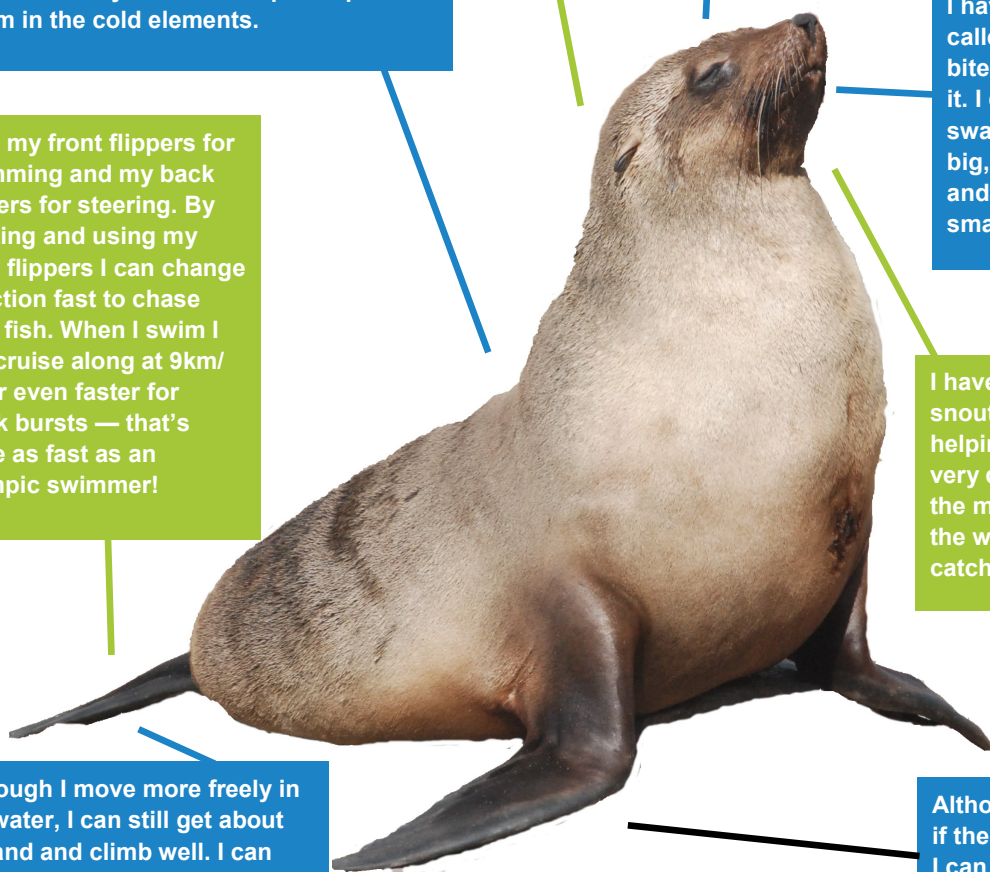
I need to breathe air to survive, so when I dive under the water I use strong muscles to close off my nostrils. I can hold my breath for up to six minutes!

I have two layers of fur, a longer guard hair and a shorter, thicker underfur. These help trap a layer of air so that water doesn't touch my skin and I can stay warm. I also have a layer of blubber underneath my skin that helps keep me warm in the cold elements.

I have long, powerful teeth called canines that I use to bite hold of my prey to catch it. I don't chew my food, I swallow it whole or if it is too big, I take it to the surface and toss it around until smaller pieces break off.

I use my front flippers for swimming and my back flippers for steering. By twisting and using my back flippers I can change direction fast to chase after fish. When I swim I can cruise along at 9km/hr, or even faster for quick bursts — that's twice as fast as an Olympic swimmer!

I have long whiskers on my snout that I use like 'feelers', helping me hunt for prey in very dark water. I can follow the movement of fish through the water, which helps me catch them.



Although I move more freely in the water, I can still get about on land and climb well. I can use my back flippers individually when moving slowly or I can swing them forward together when going faster, even galloping over shorter distances faster than you can run!

I have nails on my flippers that I use to groom my fur so I can stay waterproof. They also help me to scratch an itch.

Although I like to rest on land, if there is no land around then I can rest and sleep at sea. I float on the surface on my side with one flipper up and the other down. This is so I can feel the directions of wind and water movement.