

Lobodon carcinophagus (Hombron and Jacquinot, 1842)

PHOC Lob 1

SET

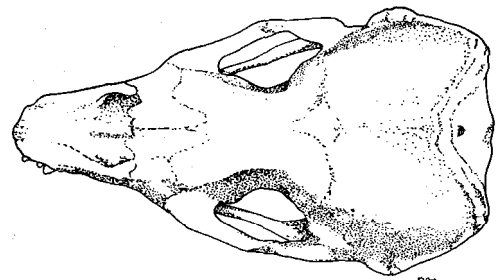
FAO Names: En - Crabeater seal; Fr - Phoque crabier; Sp - Foca cangrejera.



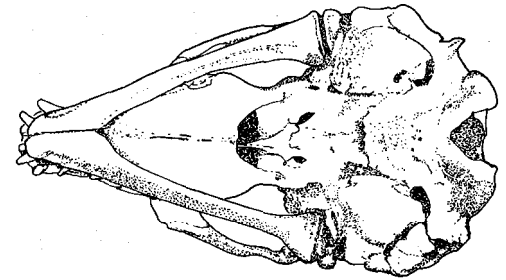
Fig. 565 *Lobodon carcinophagus*

Distinctive Characteristics: In Crabeater seals, the head and muzzle are moderately long and thin relative to the animal's overall size. The eyes are set fairly far apart and the head tapers to the base of the straight muzzle, forming a slight forehead in profile. The nostrils are on top of the muzzle, just back from the end. The line of the mouth is virtually straight. The vibrissae are short, pale to clear, and inconspicuous. The foreflippers are long, oar shaped, and pointed, like those of otariids. The first digits are elongated and robust, and the fifth digit is reduced. Many crabeaters bear long dark scars, either singly or as a parallel pair, attributable to attacks by leopard seals.

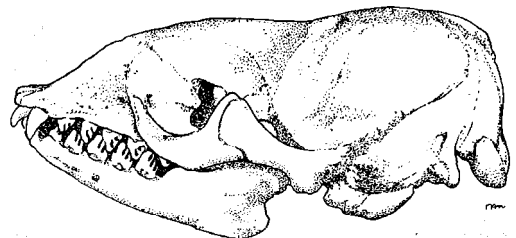
The coat of a freshly moulted crabeater has a rich sheen, with light to dark tones of silvery grey to yellowish brown. There are irregular patches of spots and rings, often in clusters on the sides, flippers, and around the insertions of the flippers. These markings produce a reticulated, or web-like, pattern on many crabeaters. The flippers can be so heavily marked with spots and rings that they appear darker than the rest of the body. As the year progresses, crabeaters fade dramatically, virtually eliminating the contrast between top and bottom. As these seals become older they become paler overall, and some look faded all year. Pups are born with a soft woolly coat that is greyish brown, with darker colouring on the flippers. Moulting begins in about 2 to 3 weeks and the pup sheds into a subadult pelage similar to that of the adult. Most crabeaters have at least a few and often many long scars on the body, which are most often seen in pairs, parallel or near to each other. These scars are thought to be the result of unsuccessful leopard seal attacks on the seals as juveniles.



DORSAL VIEW WITH MANDIBLE



VENTRAL VIEW WITH MANDIBLE



LATERAL VIEW WITH MANDIBLE

Fig. 566 Skull

Additionally many older animals are extensively scarred on the neck, face, and around the lower jaws.

All of the post-canine teeth are ornate, with multiple accessory cusps. Upper and lower teeth interlock to form a network for straining krill from the water. The dental formula is I 2/2, C 1/1, PC 5/5.

Can be confused with: Crabeater seals are most likely to be confused with leopard (p. 292) and Weddell (p. 294) seals. The former has a massive reptilean head, long foreflippers, and huge maw. The latter has a very small head, relative to the rotund body, and a distinctly spotted coat. Only crabeaters occur routinely in large groups.

Size: Adults reach 2.6 m in length and, although little data is available, weigh an estimated 200 to 300 kg. Neonates are thought to be at least 1.1 m and 20 to 40 kg.

Geographical Distribution: The distribution of crabeater seals is tied to the seasonal fluctuations of the pack ice. They can be found right up to the coast of Antarctica, as far south as McMurdo Sound, during late summer ice break-up, and as vagrants as far north as New Zealand and the lower reaches of Africa, Australia, and South America.

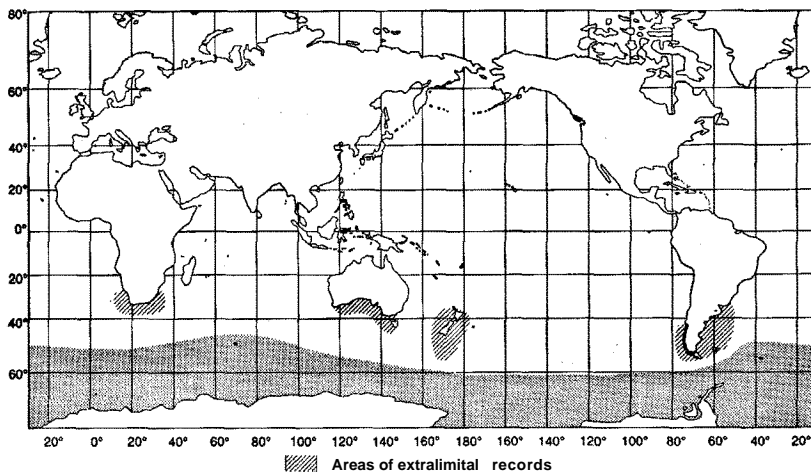


Fig. 567

Biology and Behaviour: Pups are born from September to December, and mating most likely occurs from October through December (although little is known about their reproduction). There are no specific rookeries: females haul out on ice, give birth, and aggressively ward off other seals, particularly males.

Crabeaters are frequently encountered alone or in small groups of up to 10 on the ice or in the water. However, much larger groups of up to several thousands have been observed. Occasionally, they can be seen traveling together in herds, breathing and diving almost synchronously. They are known for their ability to move rapidly on ice, with sinuous serpentine motions of the back, aided by the flippers. When agitated, their response is to arch their back and raise their neck and head, and often point the nose upwards at a slight angle in an alert posture.

Recent research has revealed that crabeater seals can dive to 430 m and for 11 minutes, although most feeding dives were much shallower and shorter. It is believed that crabeaters feed with greatest intensity at night, mostly on krill.

Exploitation: Crabeater seals have never been seriously exploited by humans. They continue to be taken for scientific research and to feed sled dogs kept at Antarctic bases. They are probably the most numerous pinniped, and may be the most numerous large mammal on earth besides humans. It has been speculated that the population of crabeater seals is at an all time high due to the demise of the large stocks of krill-eating baleen whales.

IUCN Status: Insufficiently known.

Ommatophoca rossii (Gray, 1844)

PHOC Omn 1

SRS

FAO Names: **En** - Ross seal; **Fr** - Phoque de Ross; **Sp** - Foca de Ross.

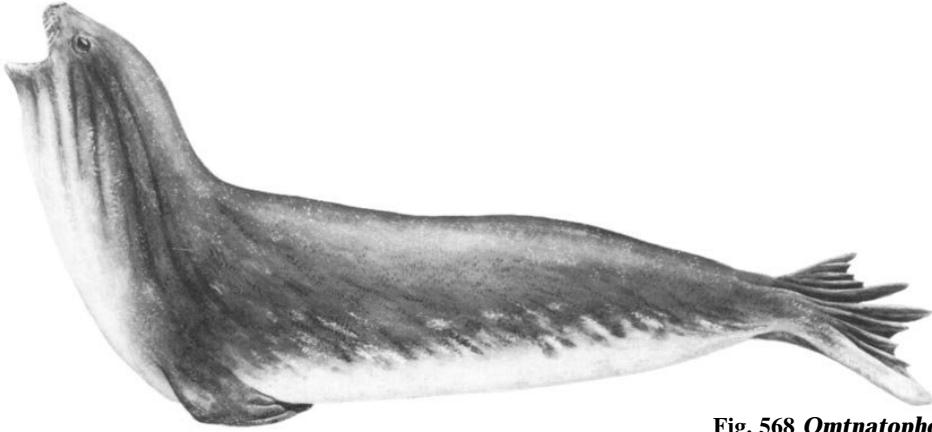
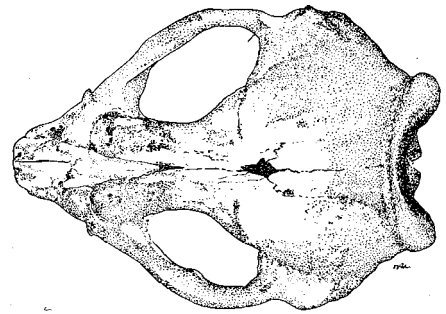


Fig. 568 *Ommatophoca rossii*

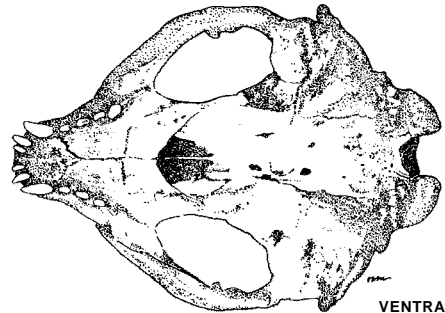
Distinctive Characteristics: Ross seals are poorly known. They are the smallest of the Antarctic phocids. The head is relatively wide and short. The muzzle is likewise short, wide, and comes to a blunt end. The small number of short, slender vibrissae are possibly the shortest of any pinniped. The eyes are set widely apart and are average in size, despite the huge orbits in the skull. The throat and neck are quite thick, but the rest of the body is of average build for a phocid. The coat is the shortest of any phocid. The hindflippers are very long, just over one-fifth of the standard length.

Ross seals are typically countershaded, dark grey above, blending along the sides, and becoming silvery below. Most striking are the beautiful brown to reddish brown streaks, unique to this pinniped, extending parallel to the long axis along the neck, chest, and sides. The face may appear masked as a result of the merging of streaks at the eyes and on the lower jaw. There may also be spots, particularly on the sides. Ross seals may have something like an epidermal moult that involves shedding small pieces of skin. Small scars are often seen on the neck, possibly from intraspecific fighting, and some adults bear larger scars, probably from leopard seal or killer whale attacks.

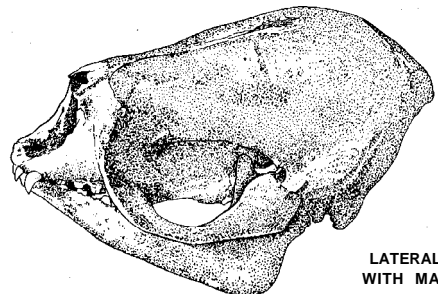
The dental formula is I 2/2, C 1/1, PC 5/5.



DORSAL VIEW



VENTRAL VIEW



LATERAL VIEW
WITH MANDIBLE

Fig. 569 Skull

Can be confused with: Of the 4 other phocids that share the Ross seal's range (Weddell (p. 294), crabeater (p. 288), leopard (p. 292), and southern elephant (p. 286) seals), the Weddell is most similar in appearance. However, Ross seals are much smaller and have a wider head, and relatively thicker neck (with streaks). Ross seals also tend to be found deeper into the thick pack ice than any other Antarctic phocid.

Size: Based on a small sample of measured animals, Ross seals reach at least 2.4 m and 204 kg. Females are slightly larger than males. It is estimated that newborn pups are about 1 m and 16 kg.

Geographical Distribution: Ross seals have a circumpolar distribution in the Antarctic. They are usually found in dense consolidated pack ice, but can also be found on smooth ice floes in more open areas.

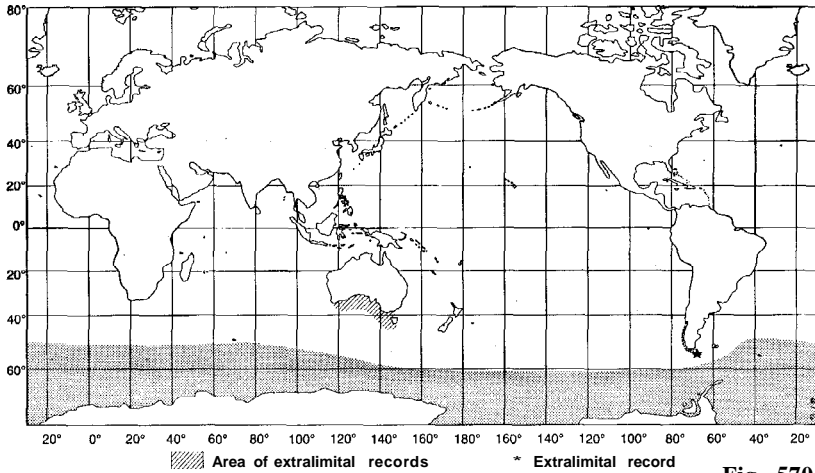


Fig. 570

Biology and Behaviour: Breeding is thought to occur from November through December. When hauled-out, Ross seals are generally encountered alone. Occasionally, a small number of individuals may be found in the same area, but they are usually widely spaced. They may haul out more from morning to late afternoon. However, during the period of the moult, they may be out of the water for longer periods.

Few behaviours have been noted, except for the interesting habit of raising up the head and neck when approached by a human. The seal either stays on its belly or rolls onto its side, keeping the belly towards the person. In this "singing" posture, it opens the mouth to produce trilling, siren-like calls, or chugging vocalizations.

Little is known of the activities of Ross seals in the water, although recent work has revealed that dives average 100 m and 6 minutes. The diet of Ross seals consists primarily of cephalopods, but also includes fishes and krill in some areas.

Exploitation: Ross seals have never been the target of anything but small scale and incidental sealing. Very few have ever been taken for research, and they are poorly represented in scientific collections. This is arguably the most inaccessible seal to humans, and explains the limited exploitation and paucity of knowledge available.

IUCN Status: Insufficiently known.

Hydrurga leptonyx (Blainville, 1820)

PHOC Hydr 1

SLP

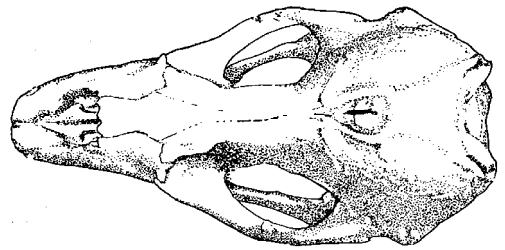
FAO Names: En - Leopard seal; Fr - Leopard de mer; Sp - Foca leopardo.



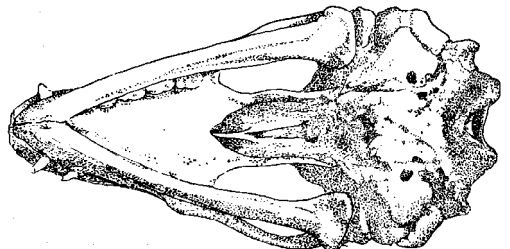
Fig. 572 *Hydrurga leptonyx*

Distinctive Characteristics: Leopard seals have a sinuous body and massive head and jaws. Because of the shape of the head, they appear almost reptilian. Females grow slightly longer and heavier, but not enough to allow the sexes to be distinguished in the field based on size. The long body is thin overall, thickest through the shoulders and upper chest. There is no trace of a forehead. The head is widest at the eyes, which appear small and set both far apart and well back from the end of the muzzle. The nostrils are on top of the muzzle, just back from the wide rounded end. The lower jaw is massive, wide, and deep, as are the throat and neck. The vibrissae are clear to pale, generally quite short and inconspicuous. Leopard seals have an enormous gape. The very long (almost one-third of the body length) foreflippers are broad and otariid-like. They are completely furred and each digit bears a short terminal claw. The first digit is long and massive, creating a thick strong leading edge.

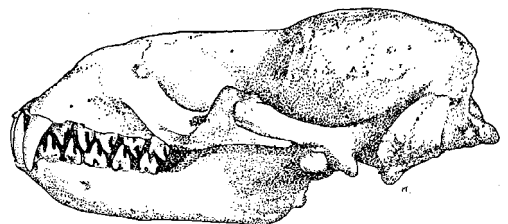
Leopard seals are basically countershaded. The darker top is silver to dark grey, and it blends along the midsides and neck at about the level of the eyes with the paler undersides, which are light grey. There is a swath of lighter colour on the upper lip. Leopard seals are spotted to varying degrees, usually most noticeably on the sides and belly. Pups have essentially the same markings and proportions as adults, although their coat is softer, longer, and thicker. Dense constellations of spots may occur without any pattern or symmetry. One area where dense clusters of spots normally occurs is around the insertions of the foreflippers.



DORSAL VIEW WITH MANDIBLE



VENTRAL VIEW WITH MANDIBLE



LATERAL VIEW WITH MANDIBLE

Fig. 571 Skull

The dental formula is I 12/2, C 1/1, PC 5/5 The canine teeth are very long (up to 2.5 cm) and sharply pointed. The remaining teeth are complex and multi-lobed, somewhat resembling those of crabeaters.

Can be confused with: When seen well, leopard seals are unmistakable. At a distance, however, they might be confused with crabeater (p. 288) or Weddell (p. 294) seals. Of these, the crabeater is the most likely candidate for confusion. To rule out other species, note the size and shape of the head, overall coloration, and length of the foreflippers.

Size: Adults usually reach 3 m and weigh 270 to 450 kg. Very large females may reach 3.6 m and 500 kg. Pups are born at about 1 to 1.6 m and around 30 to 35 kg.

Geographical Distribution: Leopard seals are widely distributed in the polar and subpolar waters of the Southern Hemisphere, from Antarctica north, and regularly reach warm temperate latitudes as vagrants. They are found throughout the pack ice zone, where their abundance is greatest. They haul-out on ice and land, often preferring ice floes, when available.

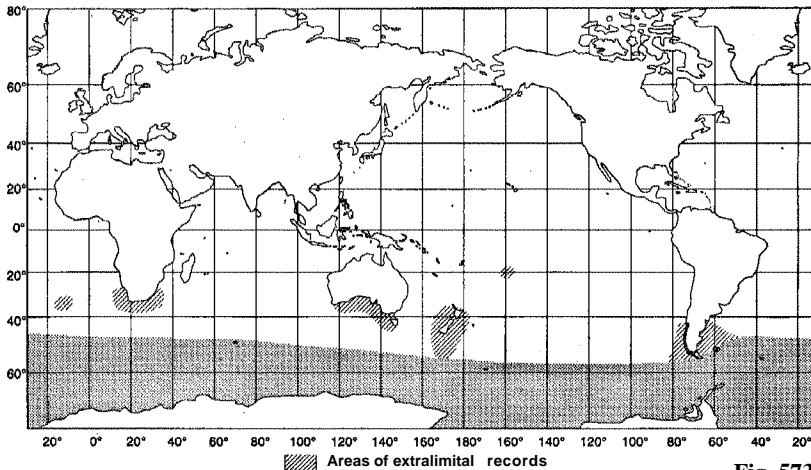


Fig. 573

Biology and Behaviour: Little is known of breeding behaviour. Pups are born on the ice from September to January, with a peak in November to December.

At sea and on the ice, leopard seals tend to be solitary. They float at the surface, and crane their neck high to view objects of interest. Sounding in this species is commenced either by sinking or rolling forward. Swimming is most often accomplished with long, powerful, coordinated sweeps of the foreflippers, rather than the side-to-side strokes of the hindflippers typical of most phocids. Leopard seals mostly sleep or are otherwise inactive when out of the water, but will move in a serpentine slithering manner across ice, and will toboggan like penguins.

Leopard seals are probably best known for their habits of preying upon penguins. The diet is actually quite varied and changes with seasonal and local abundance of prey. Leopard seals will consume krill, fish, squid, penguins, and young seals, and will occasionally scavenge from carcasses of whales. Most prey is caught in the water.

Exploitation: Leopard seals are only taken in small numbers for scientific research and have never been the target of more than minor commercial activities.

IUCN Status: Insufficiently known.

Leptonychotes weddellii (Lesson, 1826)

PHOC Lept 1

SLW

FAO Names: En - Weddell seal; Fr - Phoque de Weddell; Sp - Foca de Weddell.

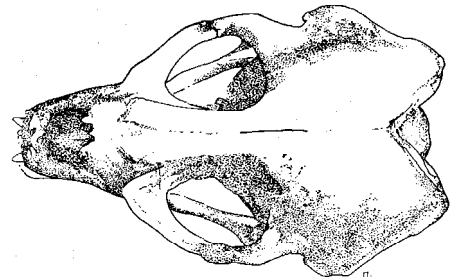


Fig. 574 *Leptonychotes weddellii*

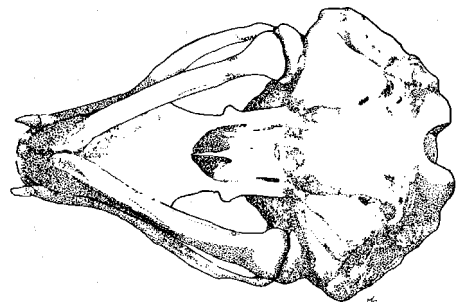
Distinctive Characteristics: Female Weddell seals tend to be slightly larger and heavier than males, but not enough to distinguish the sexes. Much of the year the body is sufficiently plump that the head appears disproportionately small. However, extensive weight loss during the spring breeding season makes the size of the head less useful. There is no discernable demarcation of the forehead. Several features contribute to a cat-like appearance: the very short and blunt muzzle, large and fairly close-set eyes, a sparse number of inconspicuous short vibrissae, and a mouthline that is turned up at the corners. The foreflippers are more pointed and angular than those of northern phocids, and are proportionately the shortest of any antarctic phocid.

Adults are generally dark silver-grey above and off-white below, with variable spotting, streaking, and blotching. These markings are lighter on the back, heavier on the sides, and sometimes continuous on the undersides. Dorsal colour progresses from bluish black just after moulting to brownish grey just prior. The muzzle, from the nostrils to the mouth and mystacial area, is usually pale, as are crescent-shaped markings over the eyes. Pups are born in a woolly silver-grey coat, with a darker swath along the midline of the back. They shed the lanugo for the adult pelage in 1 to 4 weeks.

The dental formula is I 2/2, C1/1, PC 5/5.



DORSAL VIEW WITH MANDIBLE



VENTRAL VIEW WITH MANDIBLE



LATERAL VIEW WITH MANDIBLE

Fig. 575 Skull

Can be confused with: Of the 4 phocids that share the Weddell seal's range, Ross (p. 290) and crabeater (p. 288) seals are the most similar (leopard and southern elephant seals are easy to distinguish). Note the proportionately larger and wider neck and head, and stripes of the Ross seal; and for the other species, characteristics of the muzzle, head, neck, colour pattern, flippers, and vibrissae.

Size: Adult males reach 2.9 m in length, females 3.3 m. Adults in their prime weigh 400 to 450 kg, with a wide seasonal fluctuation. Newborns are 1.5 m long and average 29 kg.

Geographical Distribution: Circumpolar and widespread in the Southern Hemisphere, Weddell seals occur in large numbers on fast ice, right up to the Antarctic continent, and offshore through the pack ice to the seasonally shifting limits of the Antarctic Convergence, including many seasonally ice-free islands along the Antarctic Peninsula.

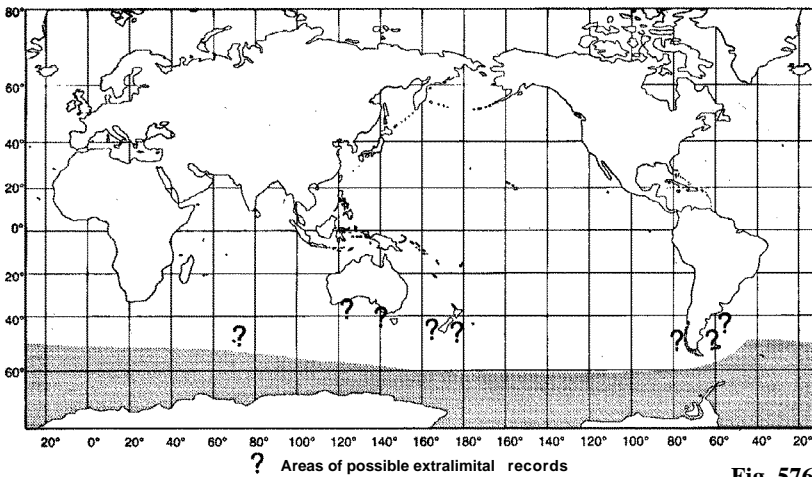


Fig. 576

Biology and Behaviour: Weddell seals breed from September through November, depending on the locality; those in lower latitudes pup earlier. Males set up territories in the water around access holes in the ice used by females.

Weddell seals are not very social when out of the water, avoiding physical contact most of the time. The only copulation that has been observed occurred underwater. They may congregate in groups on fast ice near access holes to the water. If disturbed when out of the water Weddell seals often roll onto a side and arch their neck and chest, raising the head to look around. There is some debate over whether or not this species is migratory. Some individuals remain in residence year round in the fast ice. Others, particularly newly weaned and subadult animals, move north from the continent into the winter pack ice.

Weddell seals can dive very deeply (to 700 m), and to hold their breath for up to 82 minutes. The deep diving abilities are helpful in finding breathing holes and obtaining important prey such as the huge Antarctic cod. The diet of Weddell seals consists mostly of fish, with smaller amounts of squid and other invertebrates rounding out their fare.

Exploitation: Weddell seals have never been exploited by full-scale commercial sealing. Throughout the Antarctic they have been relied upon by early explorers and scientific programmes as a food source for people, and more recently for sled dogs. Small numbers are regularly taken for research purposes. These and all other Antarctic seals are protected by the Convention on Conservation of Antarctic Seals.

IUCN Status: Insufficiently known.