AFG | ANTARCTIC FIELD GUIDE

Antarctic Species

by JE

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About Antarctic Field Guides

About the project

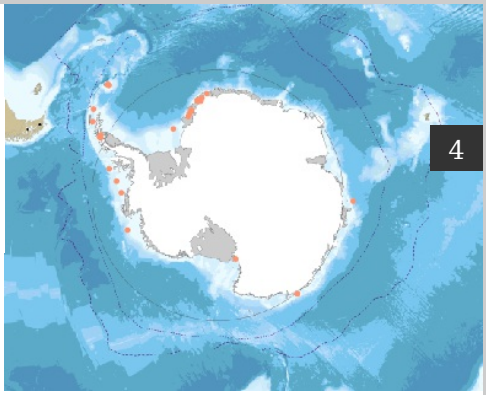
The Antarctic Field Guides is a collaborative tool offering free access to information that can help you identify Antarctic organisms. Thanks to the initial efforts from Prof. Andrew Clarke (British Antarctic Survey) and Dr Stefano Schiaparelli (University of Genoa and Italian National Antarctic Museum), it allows users to build a tailor-made, customized guide, to be taken in the field or simply browsed. The pages are generated on-the-fly from the contents of authoritative, quality controlled data resources (SCAR-MarBIN and ANTABIF), and ensures the user to access up-to-date information about the group of organisms he/she is particularly interested in. Even if the primary focus is for scientists, the AFGs are open and free for all to enjoy.

About the data and its usage

Scientific name

Reteporella frigida (Waters, 1904)

Animalia Bryozoa Gymnolaemata Cheilostomatida Phidoloporidae Reteporella



Description

Yellow, orange, pink or white in colour. This brittle, foliaceous species is typically 4-20cm high and wide. It differs from most other bryozoans and animals by being â€˜fenestrateâ€™; that is, having lots of pores or windows in its walls. It is endemic to Antarctica and is the largest species in a highly speciose genus, at least 8 of which also occur in the Southern Ocean.

Distribution info

20m to deep water, on hard substrates from the Scotia Arc islands to the Antarctic Peninsula and Ross Sea.

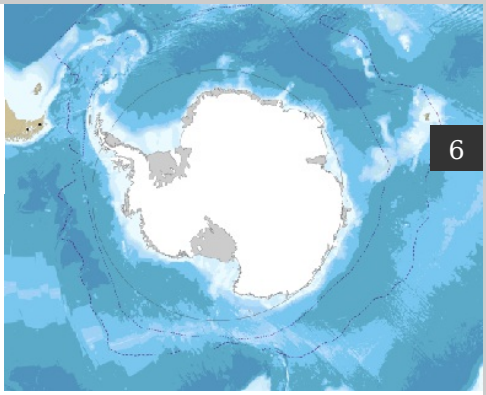
Ecology

In shallow water R. frigida tends to occur in ice-sheltered ledges, cliffs and overhangs but also occurs as small colonies on other animals such as ascidians. The foliose colonies it builds are frequently home to many species, such as worms (particularly polychaetes), amphipods, isopods and sea cucumbers. R. frigida, like all bryozoans, is a suspension feeder eating smaller phytoplankton. It feeds for about half the year when phytoplankton is most abundant.
The main predators of R. frigida are probably nudibranch sea slugs, though seastars and echinoids probably eat it incidentally.

Scientific name

Lineus longissimus

Animalia Nemertea Anopla Heteronemertea Lineidae Lineus



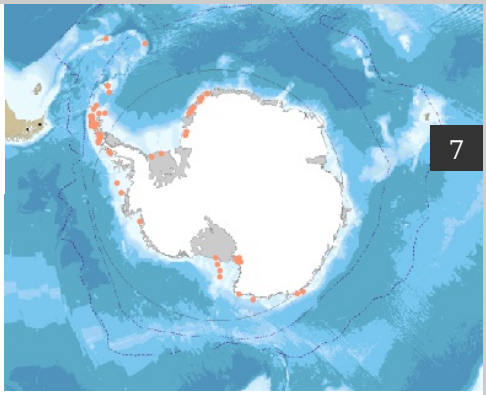
Description

The bootlace worm (Lineus longissimus) is in the phylum Nemertea or ribbon worms. It is one of the longest animals known, with specimens up to 30 metres (98 ft) long being reported. They may grow as long as 60 metres (200 ft), which would make it the longest animal in the world. They are however usually only 5 to 10 millimetres (0.20 to 0.39 in) in width. The body is brown with lighter (longitudinal) stripes. It is the most common nemertean found along the coasts of Britain. When handled it produces large amounts of thick mucus with a faint pungent smell. A specimen washed ashore in the aftermath of a severe storm by St Andrews, Scotland, in 1864, had a length of more than 55 metres (180 ft)[1], longer than the longest known Lion's mane jellyfish, the animal which is often considered to be the longest in the world. However records of extreme length should be taken with caution, because the body of nemerteans is flexible and easily stretches to much more than its usual length.
Lineus longissimus can be found on sandy shores, muddy shores, and in tide pools.
Like other nemerteans, Lineus longissimus feeds using its evertable proboscis. As it is in the class Anopla, their proboscis is not armed with a barbed stylet. Instead they have a cluster of sticky filaments at the end of their proboscis that they use to immobilize prey.

Scientific name

Beania erecta Waters, 1904

Animalia Bryozoa Gymnolaemata Cheilostomatida Beaniidae Beania



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Description

Orange/brown to translucent yellow in colour. This species is encrusting but the zooids stand upright connected by little â€˜rootletsâ€™ at the base. Many species of Beania occur in the Subantarctic and Magellanic regions but none in the Antarctic.

Distribution info

5m to deep water, patchily very common in shallows, particularly on boulder undersurfaces. B. erecta is very widespread and occurs at most localities within the Polar Frontal Zone right round Antarctica.

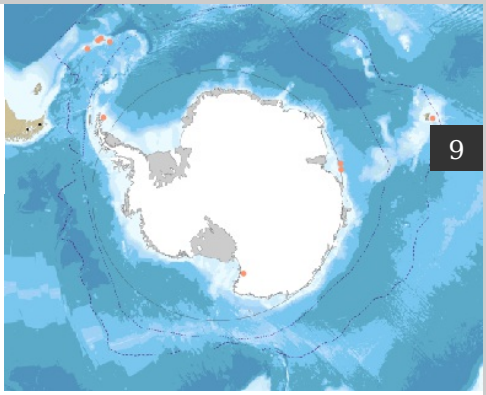
Ecology

This species is typically found under very large rocks, on cliff faces or particularly on shallow overhangs. It is an extremely good competitor, overgrowing nearly all other encrusters and many other animal types â€“ it is also a common epibiont on, for example, brachiopods. It is a suspension feeder and eats phytoplankton. It is specifically eaten by the nudibranch Charcotia granulosa but probably also incidentally grazed by limpets and echinoids.

Scientific name

Tritoniella belli Eliot, 1907

Animalia Mollusca Gastropoda Nudibranchia Tritoniidae Tritoniella



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Description

Yellow to orange (Antarctic Peninsula) or milky white to transparent (Weddell sea). Some have white pigmentation on tips and ridges.

Distribution info

Antarctica and South Georgia

Size

Up to 80mm

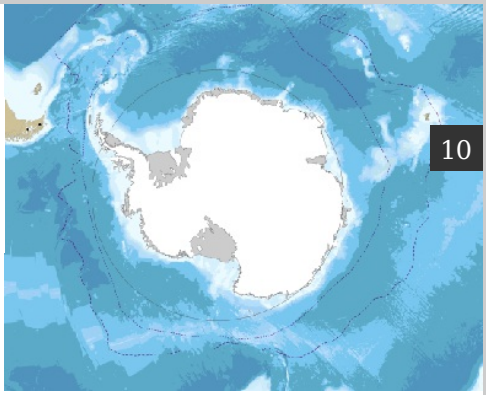
Depth of the distribution

18 to 710m

Scientific name

Anoxycalyx (Scolymastra) joubini (Topsent, 1916)

Animalia Porifera Hexactinellida Lyssacinosida Rossellidae Anoxycalyx



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Description

Anoxycalyx joubini, often referred to as a volcano sponge, is a large vase or pear shaped sponge occurring as singletons or small groups. Some are tall and wide enough for a person to fit inside. The pores in the walls are quite obvious, especially inside it. Such pores can harbour a wide range of other animals: looking inside can reveal many arthropods particularly amphipods but also sometimes pycnogonans and shrimps as well as many types of worm. This species grows very slowly and specimens may be very old. These sponges are a good location to see the yellow seastar Acodontaster conspicuous, which may even occur in clusters over it.

Distinguishing Characters

large and hard, vase shaped and white

Distribution info

throughout Antarctic waters

Size

up to nearly 2m in height and >1 m wide

Habitat

hard rock outcrops

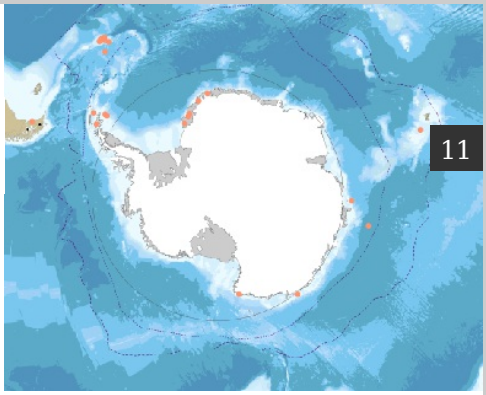
Depth of the distribution

40m to >400m

Scientific name

Uristes gigas Dana, 1849

Animalia Arthropoda Malacostraca Amphipoda Uristidae Uristes



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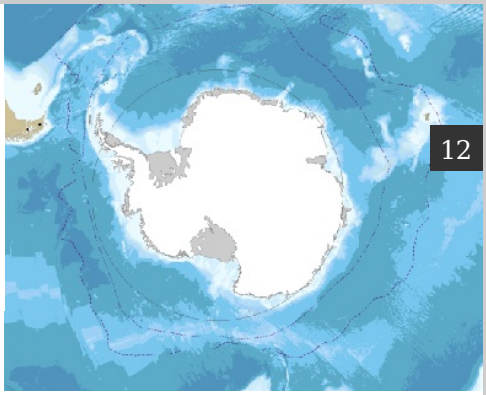
Scientific name

Lissodendoryx (Lissodendoryx) flabellata Burton, 1929

Animalia Porifera Demospongiae Poecilosclerida Coelosphaeridae Lissodendoryx



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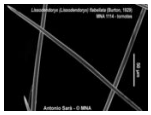
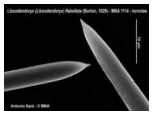
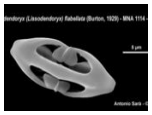
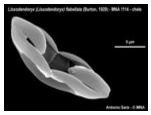
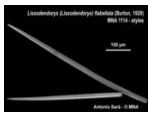
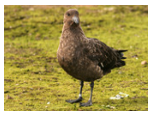
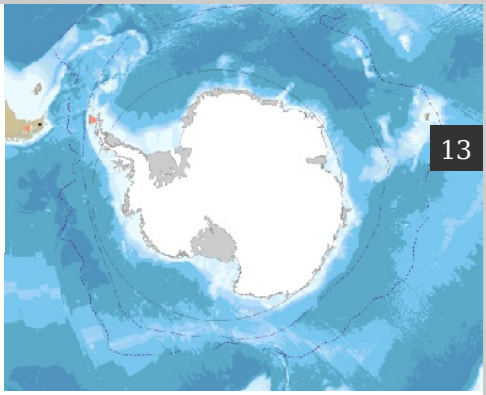






Scientific name

Stercorarius antarcticus (Lesson, 1831)

Animalia Chordata Aves Charadriiformes Stercorariidae Stercorarius





Description

Current phylogenetic classification: The order Lariformes is represented in high latitudes of the southern hemisphere with three families: gulls, terns and skuas. Herein the skuas (Stercorariidae) for their part occur with three species: S. maccormicki, S. chilensis and S. antarcticus. The latter of which is subdivided into three sub-species: S. a. antarcticus, S. a. lonnbergi and S. a. hamiltoni (Devillers 1978, del Hoyo et al. 1996, Ritz et al. 2008).

Distinguishing Characters

The most conspicuous feature is a white patch in the middle of the under wing which is formed generally by the basal parts of eight primary feathers. They show this ornament when warning by lifting the wings (e.g. in case of entering the territory; happens in combination with emitting a call, in that case a long call).

Distribution info

Brown Skuas have a huge area of distribution, which is circumpolar at high latitudes of the southern hemisphere. Their prevailing breeding sites are at Sub-Antarctic Islands within the Antarctic Convergence. But they also breed at islands near New Zealand, representing the northernmost breeding areas. On the other extreme side, Brown Skuas are breeding on islands near the Antarctic Peninsula (not further south than Anvers Island archipelago 64Â°46â€² S 64Â°03â€² W) (Ritz et al. 2006). An outlying, but however constant, breeding record (the only published one) is a single Brown Skua female which breeds at the western edge of the Ross sea (Port Martin) at the Antarctic Continent/ East Antarctic. That female breeds in a mixed pair constellation with a south polar skua (Barbraud et al. 1999).
The zone of sympatric occurrence with C. maccormicki:
In the breeding range of the Brown Skua, there is a zone characterized by an alongside occurrence with another skua species, the South Polar Skua S. maccormicki. A 500km wide hybrid zone is located in the West Antarctic, in the area of the Antarctic Peninsula representing the southern and northern extremes of the breeding ranges of Brown- and South Polar Skuas, respectively. The zone ranges from the South Orkney Islands (60Â°45â€™S) in the north to the Anvers Island archipelago (about 65Â°S) in the south (Parmelee et al. 1977, Hemmings 1984, Hahn et al. 1998). Pairs formed by S. maccormicki x S. maccormicki and S. a. lonnbergi x S. a. lonnbergi are dominating the numbers and are occurring side by side. The characteristic feature of the hybrid zone is the occurrence of mixed species pairs, formed by S. maccormicki and S. a. lonnbergi. The percentage of such mixed species pairs varies within that zone and is highest in the northern part; like on Fildes Peninsula/ King George Island were 12 % of all breeding pairs are mixed pairs. These pairs are always formed by a South Polar Skua male and a Brown Skua female. The offspring of mixed species pairs is fertile (Pietz 1984, Ritz et al. 2006).
The hybrid zone has been intensively studied; amongst others in terms of species foraging ecology. In the area of sympatric occurrence, a foraging pattern different from the pattern of circumpolar allopatric occurrence has evolved which is due to species competition. However, Brown Skuas are dominating all terrestrial resources over South Polar Skuas by outcompeting them â€“ so a change in the foraging behavior can be observed only in the South Polar Skua, which is forced to prey on marine resources.

Size

The Brown Skua Catharacta antarctica lonnbergi is evaluated in the Red List of Threatened Species as Least Concern. That is based on: firstly the huge range of occurrence, which is circumpolar, mostly on remote, isolated Sub-Antarctic islands; secondly, the population trend appears to be stable. According to BirdLife International the population is placed in the band 10 000 â€“ 20 000 individuals.

Habitat

Nests are built at places which are free of snow in early spring compared to the surrounding facilitated by landscape features e.g. small hills or moraines. As nest material they use lichens, grasses and/or mosses depending on the local availability. Like other skua species, the Brown Skua also occupies a territory around the nest which is defended against each intruder by the territory owners, and most vigorously against conspecifics (but also against scientists and unsuspecting tourists) (Trivelpiece et al. 1980). Herein, the size of the territory varies a lot and depends amongst others factors on the breeding location and landscape features. The territory may firstly be: a pure nest territory, defended to protect the brood or secondly an all-purpose territory which includes beneath the nest as well

Ecology

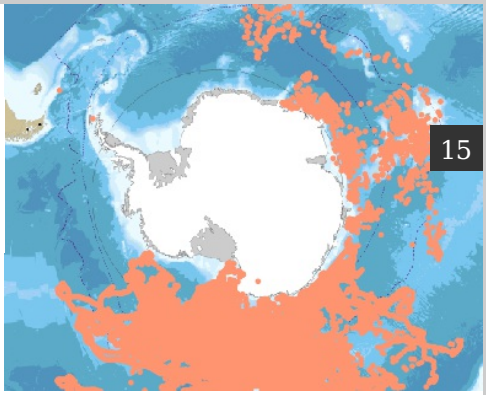
Within their huge breeding range, Brown Skuas experience a wide variety of climatic conditions, having consequences for the non-breeding period distribution. Brown Skuas do not necessarily migrate big distances but, typically for pelagic birds, they usually do leave the breeding grounds and return to land only for breeding. How far they move depends on the breeding area, whereas the northern breeding populations stay close to the breeding ground and the southern populations migrate further north (Olsen and Larsson 1997). Herein the migration pattern and wintering areas are largely unknown (Furness 1987, Olsen and Larsson 1997). Museum skins and colour slights of C. a. lonnbergi-specimens found/sighted at the northern hemisphere appeared to be misidentified being rather South Polar Skuas (Devillers 1977). Phillips et al. (2007) firstly used tracking devices for getting insight into migration patterns and wintering areas of that species. The study showed that Brown Skuas breeding at Bird Island/ South Georgia are leaving the breeding area and wintering over deep oceanic water in the Argentine basin between the Antarctic Polar Front and the northern sub-tropical-front.

Scientific name

Mirounga leonina (Linnaeus, 1758)

Animalia Chordata Mammalia Carnivora Phocidae Mirounga



Description

Southern elephant seals are phocids, or true seals, and are the largest of all seal species. They have a circumpolar distribution, breeding mainly on subantarctic islands. At sea they have been found to inhabit almost all of the Southern Ocean and travel long distances during their foraging migrations. They are highly sexually dimorphic, with males (over 4000 kg) being up to ten times larger than females (~450 kg). Males will attempt to join the breeding system at around seven years of age and may live to 14 years old, whereas the females are recruited into the breeding population from age four and may live to 24 years of age.

Their scientific name, Mirounga leonina, is thought to be a combination of the Australian aboriginal name for them â€˜miourounga€™ for the genus and the latin word for lion as the specific part, due to their roar and threat vocalisations.

Distinguishing Characters

Elephant seals are the largest of all seals but are also â€˜supermammalsâ€™ in terms of their diving physiology - they are capable of diving to depths greater than 2000 m and holding there breath in excess of two hours.

Distribution info

The distribution of southern elephant seals is circumpolar and ranges mainly in subantarctic waters from 16Â° S at Saint Helena to 78Â° S. The sealsâ€™ haul-out locations are typically subantarctic islands lying between 40 and 62Â° S of the Atlantic and Indian Ocean sectors of the Southern Ocean. While at sea the seals forage widely in the Southern Ocean from the high latitudes around the Antarctic continent to temperate waters around Argentina, Chile, southern Africa, Australia and New Zealand. During these long foraging trips the seals may spend more than 9 months of the year at sea and travel over 5000 km in a round trip.
On the basis of their chief haul-out locations, four main breeding populations have been identified: South Georgia (population size ~ 400, 000) in the south Atlantic, Iles KerguÃ©len and Heard Island (~ 220,000) in the Indian Ocean, Macquarie Island (~ 76,000) in the south Pacific Ocean, and on Peninsula Valdez (~ 42,000) in Argentina. There is estimated to be little gene flow between these populations.
The global population in recent years has increased from 664,000 in 1994 to 740,000 in 2001. The increasing population at Peninsula ValdÃ©z has mainly driven this overall increase. The South Georgia population has remained stable over the past few decades. The population in the Indian Ocean at Iles KerguÃ©len and Heard Island has remained stable since 1990 after declining since the 1950s, though the Macquarie Island population has continued to decrease for reasons that are remain unclear. Though only a small population, the Marion Island population, in the south Indian Ocean, has also continued to decrease until recently. The primary reason for these declines between the 1950s and 1990 has been suggested to result from food limitation with inter-island differences attributed to factors such as competition with other species and predation.

Size

At birth pups weigh 40 kg and are 1.2 m long. Adult females are on average 450 kg and 3 m long, whereas males can weigh over 4000 kg and be 5 m in length.

Depth of the distribution

Extreme dives to greater than 2000 m. These seals commonly dive between 300 to 1500 m.

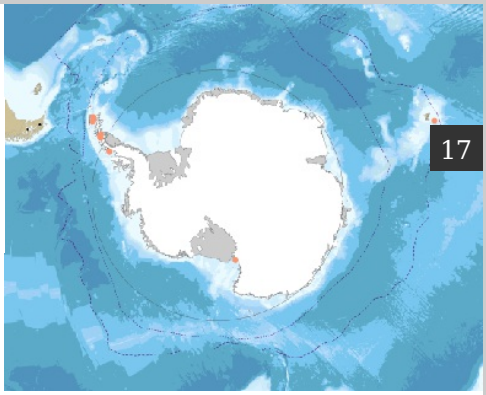
Ecology

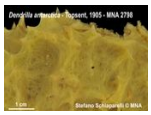
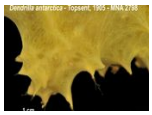
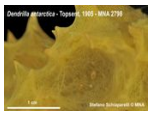
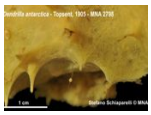
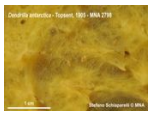
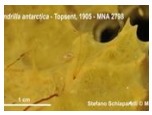
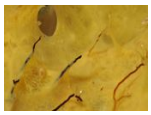
Southern elephant seals are major consumers of biomass, primarily squid and fish in the Southern Ocean. The life cycle of southern elephant seals is a combination of terrestrial haul-outs required for breeding (September to November) and moulting (December to March) interspersed with long periods at sea foraging. In the case of juveniles, the adult breeding haul-out is replaced with a mid-year haul-out (April to August).

Scientific name

Dendrilla antarctica Topsent, 1905

Animalia Porifera Demospongiae Dendroceratida Darwinellidae Dendrilla




Distribution info

southern hemisphere, particularly common in Antarctic waters

Size

patches from a few cm to a few m in area

Habitat

grows on macro-algae, organism shells or hard rock

Depth of the distribution

immediate subtidal to deep waters

Description

Mats of Dendrilla antarctica a few cm thick often carpet shallow rocky surfaces, sometimes extending over 3 or 4 square meters. Although the species is typically almost luminescent yellow it can have a variety of colour. Its prickly appearance makes it quite distinctive but it is does not feel spiky to touch, its tissue is soft and squashy. Other than the spiky texture it takes the form of whatever it is growing over, so when it encrusts macroalgae it often extends in lobes into the water column â€“ slicing through a lobe reveals the alga inside entirely surrounded by the sponge. D. antarctica is a good competitor for space, so underneath encrusting sheets can often be found a wide variety of animals that it has suffocated. The tissues of this species have antibiotic properties and contain endosymbiotic diatoms. Frequently one or more individuals of the large sea slug A. kerguelenensis are seen on any large patches of the sponge. Occasionally found on the under-surfaces of boulders but if lifted out of the water it dries out to a thin yellow slime.

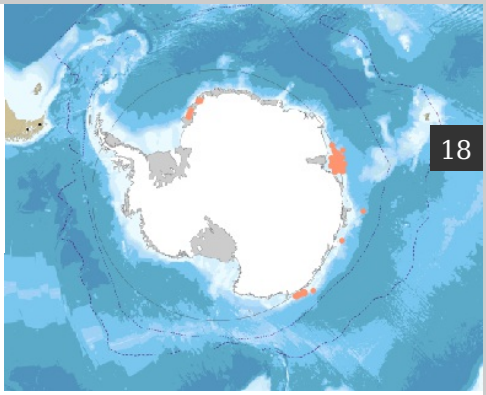
Distinguishing Characters

bright yellow, spiky, one of the most common shallow sponges

Scientific name

Chionodraco hamatus (LÃ¶nnberg, 1905)

Animalia Chordata Actinopterygii Perciformes Channichthyidae Chionodraco









Description

The characteristic posture of the icefish is â€œsittingâ€ on the botton kept by its elongate pelvic fins (Montgomery & Macdonald, 1998).

Distinguishing Characters

The study of the morphology and composition of the three otoliths (sagitta, lapillus and asteriscus) of the Chionodraco hamatus by scanning electron microscopy and X-ray diffraction was carried out by Motta et al. (2009). It possessed a completely vateritic asteriscus, whereas its sagitta and lapillus were made mostly of aragonite. Parallel analysis of protein patterns in C. hamatus revealed that the sagitta significantly differed from the lapillus and asteriscus. The sagitta did not contain the S-100 protein and showed calmodulin and calbindin located in discontinuous or incremental zones, respectively.

Distribution info

Chionodraco hamatus shows a circumantarctic distribution, although it is mainly recorded on the continental shelf of East Antarctica down to 600 m depth (Iwami & Kock 1990). The lack of haemoglobin in the blood, which characterises these fishes, has probably played a key role in determining their distribution within the cold and highly oxygenated waters of the Antarctic, where metabolic requirements dependent on temperature are low (Eastman 1993). Consequently, several studies on these species have focussed on their blood physiology, as well as on the structure and function of antifreeze components (Kunzmann 1989, 1991; Wells et al. 1990; Egginton 1996; WÃ¶hrmann 1996, 1997).

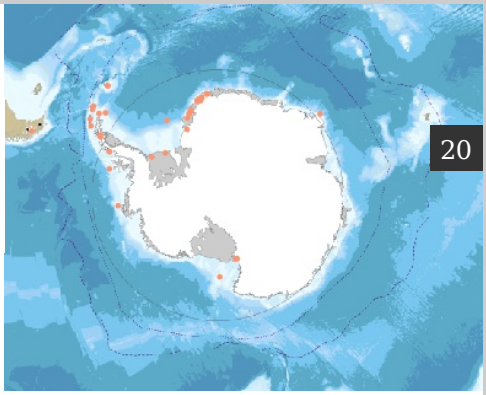
Ecology

The channichthyid Chionodraco hamatus is a common icefish within the cold waters of the high-Antarctic zone. It is an endemic species to the Antarctic region. Off Terra Nova Bay, as well as in the Ross Sea, Chionodraco hamatus is by far the most abundant and eurybathic icefish, both in terms of biomass and frequency of occurrence (Eastman & Hubold 1999; Vacchi et al., 1999).
Chionodraco hamatus spawns in spring (September-October) in the Mawson Sea and throughout summer (December-March) in the Ross Sea, Davis Sea and Weddell Sea (Shandikov & Faleeva 1992; Duhamel et al., 1993; Vacchi et al., 1996). As in other high-Antarctic channichthyids, C. hamatus females are characterised by having low fecundity and they produce only a few thousand but large (3.5-5 mm) eggs (Vacchi et al. 1996). C. hamatus probably spawns a single batch of oocytes once a year (La Mesa et al., 2003).

Scientific name

Ellisina antarctica Hastings, 1945

Animalia Bryozoa Gymnolaemata Cheilostomatida Calloporidae Ellisina



Description

Yellow to orange in colour. This species is encrusting and has a membranous front to each zooid. The individuals can be seen clearly with the naked eye â€“ they look shiny when they dry out. This is not an easy species to separate from a number of other encrusting bryozoans.

Distribution info

5m to deep water, common in shallows, particularly on boulders (unusually on the upper surfaces rather than the under as other species) and on the ascidian Cnemidocarpa verrucosa. The species has a patchy distribution, being described from the Chatham Is (NZ), Chilean Patagonia and west Antarctica, including the Ross Sea.

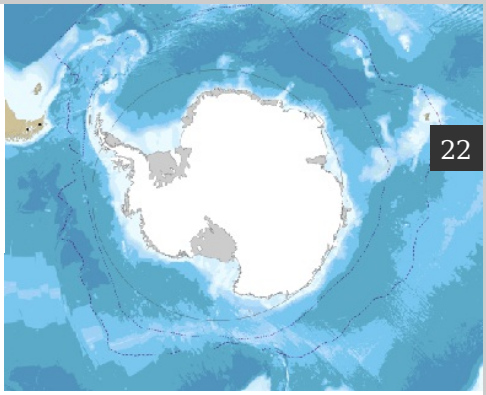
Ecology

The species is common in the shallows, particularly in highly disturbed areas and places with high water flow. It is a highly aggressive species and fights all other colonies it meets of the same species, unlike most other encrusting species. # It is a suspension feeder, eating phytoplankton. It is probably grazed by limpets and echinoids.

Scientific name

Lobodon carcinophagus (Hombron & Jacquinot, 1842)

Animalia Chordata Mammalia Carnivora Phocidae Lobodon





Description

Crabeater seals have a circumpolar distribution, and are largely restricted to Antarctic pack-ice which makes them difficult to access for scientific study. Adults are 2.0-2.6 m in length, with females slightly larger than males. Weight can vary considerably throughout the year, but are typically in the range of 180-225 kg. Colour is also variable with old, pre-moult coats being silvery white and post-moult coats light to medium brown. The coats are often flecked with darker brown, and tend to be darker on the dorsal surface. They are commonly heavily scarred from encounters with leopard seals, a common predator of young crabeater seals, or from intra-specific interactions as adults during the breeding season. Crabeater seals have highly specialised and distinctive multi-cusped post canine teeth which can interlock to form a sieve when filter feeding on zooplankton.

Distinguishing Characters

The key distinguishing characteristics of crabeater seals is their relatively uniform colour, as they lack the prominent spots and streaks of Weddell, Ross and leopard seals. They are generally smaller, more slender and lighter in colour than elephant seals which may also be found in the pack-ice. They have a blunt, square shaped shapes snout in comparison to other seals, and very distinctive multi-cusped teeth.

Distribution info

Crabeater seals are found almost entirely in the Antarctic pack-ice, with only occasional vagrants hauling out on sub-Antarctic islands north of the polar front, or even more rarely on the coast of Australia, New Zealand, Africa and South America. Within the pack-ice, their distribution seems to be largely determined by that of the primary prey, Antarctic krill. Tracking studies have shown that in the West Antarctic Peninsula they occur on the continental shelf, while in Eastern Antarctica highest densities are associated with the continental shelf break or the marginal ice zone.

Size

The global population size of crabeater seals and its long term trends are unclear. This uncertainly is due to extreme difficulty of conducting synoptic circumpolar surveys in the pack ice regions used by the seals. Estimates from the 1970 and 1980s put the global population at around 30 million seals, but these were revised down to 12 million as data improved in the 1990s. It has also been suggested the crabeater seal population increased throughout the 20th century as a consequence of increased krill availability arising from the decline in whale numbers. Despite some demographic data supporting this idea, there are no systematic survey data from before whaling to test the hypothesis. SCAR coordinated a international pack ice seal survey in 1999-2001 which estimated the population of eastern Antarctica (64â€“150Â°E, one quarter of the continental coastline) to be 914,200 seals (95% confidence limits: 698,600â€“1,302,000). Differences in the methodologies between this and earlier surveys in the region, prevented an assessment of trends, and there is still no revised global estimate for population size for this species.

Habitat

Crabeater seals are regarded as pack-ice obligate, using the floes as a substrate for breeding and resting, and foraging for krill in the waters beneath them.

Depth of the distribution

Crabeater seals typically dive deeper during the day than at night as they follow the vertical migration of their prey, but the overall dive depths vary considerably regionally. In the West Antarctic Peninsula, mean day time dives depths are 158 m compared to 73 m during the night. This is consistent with the seals using krill swarms compressed along the ocean floor during the day, and at night foraging on krill that are more dispersed throughout the water column. In eastern Antarctica, dives are very much shallower, generally less than 20 m. It is important to note that the West Antarctic Peninsula studies were conducted in late autumn and winter while the Eastern Antarctic studies were in spring and summer so these differences may be due to some extent to seasonal differences in the behaviour of krill. The deepest dive recorded for a crabeater seal is 664 m and the longest 23.6 min.

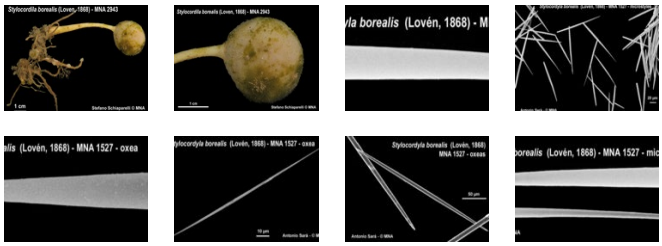
Ecology

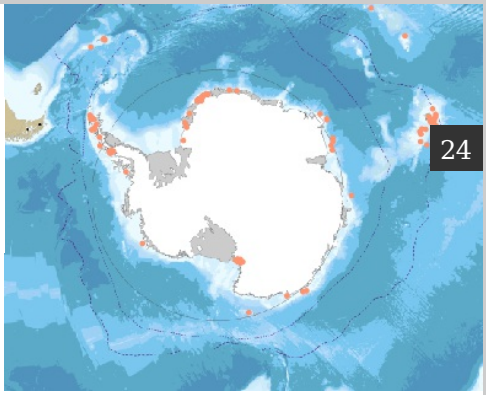
Crabeater seals may be one of the most abundant large mammals in the world, but paradoxically relatively little is known about their basic biology. Mortality in the first year of life is as high as 80%, largely due to predation by leopard seals. Other sources of mortality are killer whales, which have been seen hunting together to take adult crabeater seals off ice floes. They typically live for 20-25 years, but can live for up to 40 years.
There is a strong diel cycle to the seals haul-out behaviour. On average adult seals spend 20-30% of each day hauled out on ice floes, but this varies both with the time of day and with the time of year. On the WAP, the seals hauled more at night and focused foraging activity during the daylight hours. By the end of August the seals switch to hauling out during the day and foraging at night, which is also the pattern in the Ross Sea and EA. The change in haul out behaviour most likely reflects changes in the behaviour of their prey and the strategies that the seals use to catch their prey.

Scientific name

Stylocordyla borealis (Loven, 1868)

Animalia Porifera Demospongiae Hadromerida Stylocordylidae Stylocordyla





Distribution info

13 to 2,900m. Stylocordyla borealis is an example of a bipolar sponge, found in both Arctic and Antarctic seas. This is, unsurprisingly, a rare situation in Antarctic species. It has been found as far south as Canada and Norway and as far north as New Zealand, with occurrences in the tropics near Brazil and Granada.

Description

White or orange head, either spherical or oblong, on a smooth, long, slender stalk. The head is up to 2.5 cm diameter and the entire sponge grows up to 20cm high.

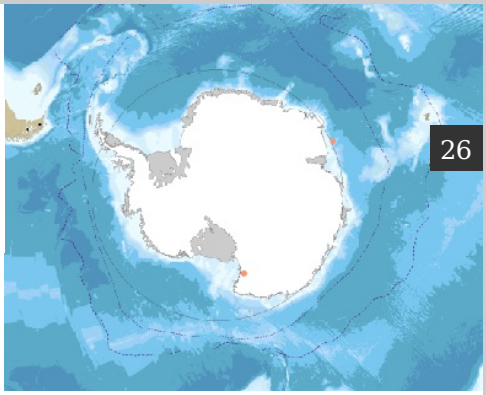
Ecology

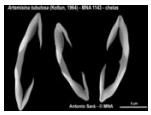
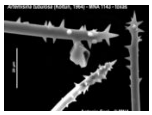
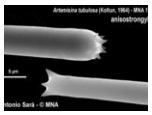
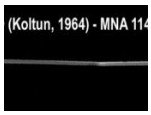
Stylocordyla borealis is a suspension feeder. It occurs in patches, probably due to its mode of reproduction, in which eggs are incubated inside the mother sponge and released as fully complete young sponges to settle nearby. Stylocordyla borealis has a system of rooting spicules which enables it to attach and grow in soft bottomed areas.

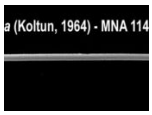
Scientific name

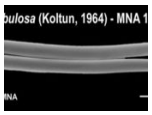
Artemisina tubulosa Koltun, 1964

Animalia Porifera Demospongiae Poecilosclerida Microcionidae Artemisina



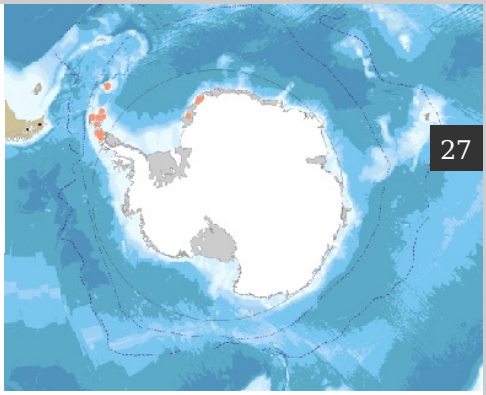




Scientific name

Liouvillea oculata Chevreux, 1912

Animalia Arthropoda Malacostraca Amphipoda Pontogeneiidae Liouvillea



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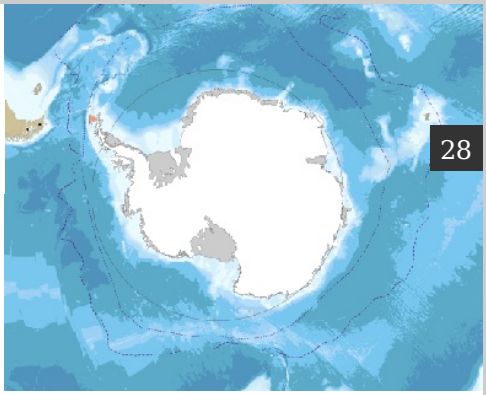
Scientific name

Styela wandeli (Sluiter, 1911)

Animalia Chordata Ascidiacea Stolidobranchia Styelidae Styela



Description

Pinkish-red, wrinkled and leathery, with a short stalk. Looks similar to Molgula enodis, but has longer siphons and a rough surface. This is a small ascidian, growing to only 1 or 2cm high.

Distribution info

Found below 10m around the Antarctic Peninsula and Continent.

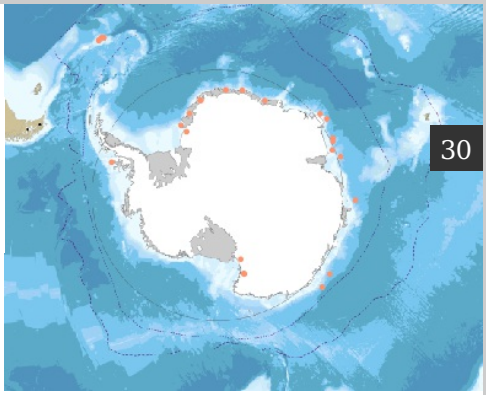
Ecology

Styela wandeli has been found growing on the surfaces of other ascidians, including Cnemidocarpa verrucosa, Pyura obesa and Molgula pedunculata.

Scientific name

Phorbas glaberrimus (Topsent, 1917)

Animalia Porifera Demospongiae Poecilosclerida Hymedesmiidae Phorbas



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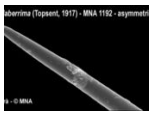
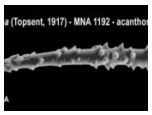
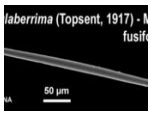
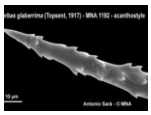
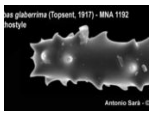



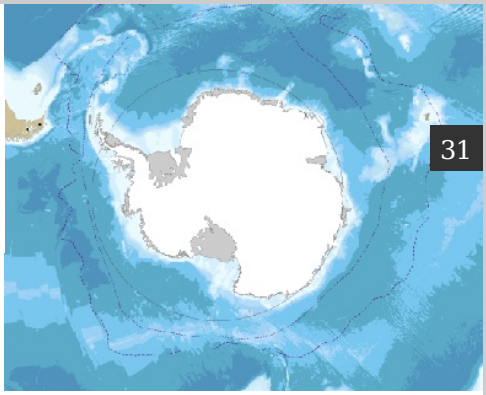




Scientific name

Diomedea exulans Linnaeus, 1758

Animalia Chordata Aves Procellariiformes Diomedeidae Diomedea



Description

Albatrosses are considered by many to be the most majestic of all Antarctic birds. Their long, narrow wings are strikingly graceful. Equally impressive are the large heads featuring massive hooked bills. Their bodies are mainly white and they have long necks, short legs, and mostly short tails. Albatrosses are supreme gliders; with modified wings to maximize the updrafts and thermals over the open ocean. Albatrosses are best observed during rough weather, when high waves create strong uplifting air currents, enabling them to remain aloft with hardly a wing beat for hours on end.

Distribution info

Southern Seas

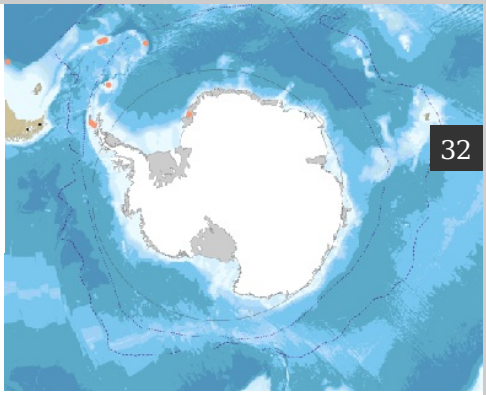
Size

18 pounds

Scientific name

Paraserolis polita (Pfeffer, 1887)

Animalia Arthropoda Malacostraca Isopoda Serolidae Paraserolis



Description

Reaches up to around 2cm long. Serolids are flattened and disc-shaped.

Distribution info

Often found in shallow water, between 3 and 20m. Paraserolis polita lives fully buried in soft sediments such as mud and sand, from Sub-Antarctica to the Antarctic Peninsula and Continent.

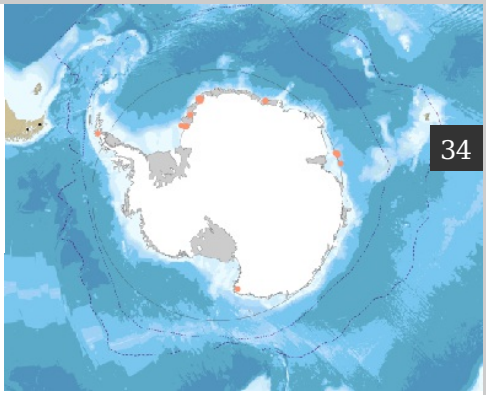
Ecology

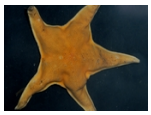
Paraserolis polita is a predator and feeds on a variety of small invertebrates, particularly amphipods and polychaete worms. It lives for up to 6 years and reaches maturity after about 2, breeding every two years. Eggs are laid in autumn and brooded in a marsupium for a year and a half, and then the young are released in spring. This long incubation period is probably timed to coincide the release of juveniles with the most productive part of the Antarctic season.

Scientific name

Acodontaster conspicuus (Koehler, 1920)

Animalia Echinodermata Asteroidea Valvatida Odontasteridae Acodontaster





Distribution info

0 to 761m (mostly below 30m) from Sub-Antarctica and South Georgia to the Antarctic Peninsula and Continent.

Description

5 arms. Colour varies but is generally pale orange to brownish, and fairly large (up to 30cm across)

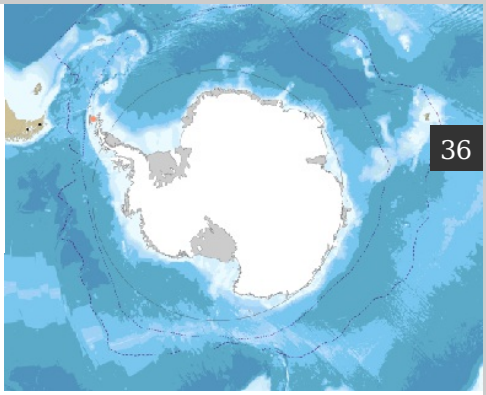
Ecology

Feeds on various sponges including glass sponges and the slimy sponge Mycale acerata; a relatively fast growing sponge which could dominate sponge communities if not regulated by predation from Acodontaster conspicuous and from another seastar, Perknaster fuscus. Acodontaster conspicuous is itself known to be preyed upon by the worm Parbolasia corrugatus, the anemone Urticinopsis antarcticus and the much smaller seastar Odontaster validus, which will attack as a gang, after the initial solo assault. Predation by O. validus probably keeps Acodontaster populations under control.

Scientific name

Sycozoa sigillinoides Lesson, 1830

Animalia Chordata Ascidiacea Aplousobranchia Holozoidae Sycozoa



Description

Usually white-brown in colour. This clearly stalked animal varies from a few to about 10cm long â€“ the stalk is about 5mm diameter. The species is quite flexible and soft to touch, though the lower stalk is more firm and â€˜plasticyâ€™. The near transparent zooids can clearly be seen arranged around the common terminal cloaca. Similar species include Sycozoa gaimardi which is known from the magellanic and northern Antarctic Peninsula regions.

Distribution info

15m to deep water, on hard substrates from Tierra del Fuego and the Falkland Islands to Subantarctic, Scotia Arc, Antarctic Peninsula and probably Continental Antarctic coasts.

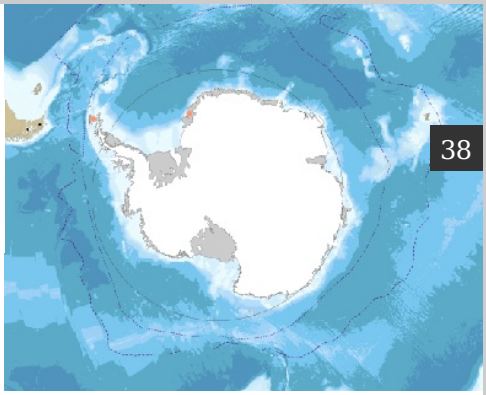
Ecology

There are probably other Antarctic species in this genus, or this species may really be several cryptic species. Colonies are usually found attached to other animals, such as sponges, erect bryozoans, large ascidians, brachiopod shells but they do also occur on rock. They are suspension feeders and eat phytoplankton.
A number of stalks can be seen with the heads chewed off though their predators are not known.

Scientific name

Ascidia challengeri Herdman, 1882

Animalia Chordata Ascidiacea Phlebobranchia Ascidiidae Ascidia



Description

Yellowish and translucent, but often covered in sediment so that its appearance is obscured, however the siphons are distinct. The main body lies flat along the substrate, growing to a length of 17cm.

Distribution info

15 to 637m, found on a wide range of substrates from Sub-Antarctica to the Antarctic Peninsula and Continent.

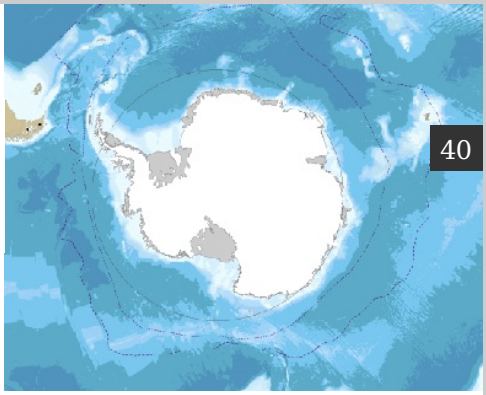
Ecology

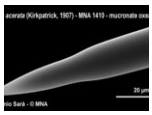
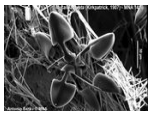
Ascidia challengeri has been shown to grow fast at first (up to 7.5cm in two years), but growth slows as it gets older. It is a suspension feeder, mostly sifting out detritus that has been re-stirred up from the sea floor. Ascidians have a low energy content and appear to be generally unattractive to potential predators, although they have occasionally been found in the stomachs of fish and brittle stars. Ascidia challengeri spawns during the Antarctic summer.

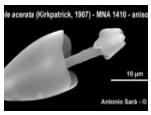
Scientific name

Mycale (Oxymycale) acerata Kirkpatrick, 1907

Animalia Porifera Demospongiae Poecilosclerida Mycalidae Mycale









Description

Mounds of Mycale acerata and the starfish that eat them are a common feature of hard bottom communities. Although it has no programmed shape (like many sponges) it tends to form mounds like those made by termites with many smooth rounded lobes protruding. Sometimes M acerata is the most common sponge and one of the most important contributors of biomass. This sponge is particularly notable for being one of the few sponges, or even any Antarctic invertebrates, that grows quickly. Despite this it still grows somewhat slower than the fastest growing temperate or tropical sponges. In periods of food shortage this species and some others may actually shrink over considerable periods of time. It is not known how long this sponge lives but it could probably be many decades.

Distinguishing Characters

dull yellow, a common lobed sponge of shallow waters. Lined texture on surface quite distinctive. Slimy.

Distribution info

Patagonia to Circum subantarctic and Antarctic waters

Size

mounds typically between 20cm to exceptionally >1m in height

Habitat

grows on hard rock ledges and cliffs

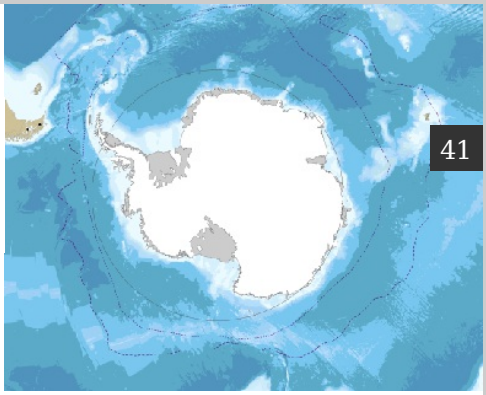
Depth of the distribution

10m to deep waters

Scientific name

Latrunculia (Latrunculia) biformis Kirkpatrick, 1907

Animalia Porifera Demospongiae Poecilosclerida Latrunculiidae Latrunculia



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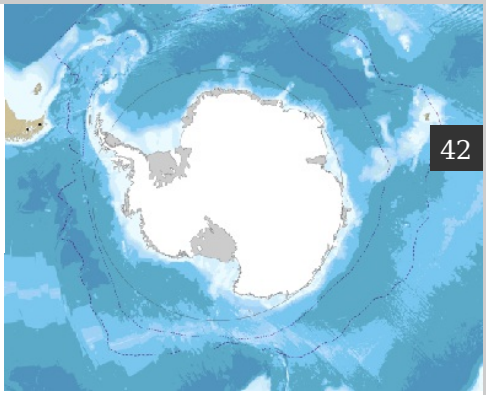
Scientific name

Lagenischara lyrulata (Calvet, 1909)

Animalia Bryozoa Gymnolaemata Cheilostomatida Exochellidae Lagenischara



Description

Dark yellow to brown in colour. Like other bioconstructor species L. lyrulata changes from encrusting to erect foliaceous colonies, up to 1m in diameter. It is the only Antarctic species in its genus. It has a distinctive high collar around the tentacle hole, which gives the colony a dimpled impression.

Distribution info

25m to deep water, on hard substrates. It is widely distributed south of 60Â°S in the Southern Ocean.

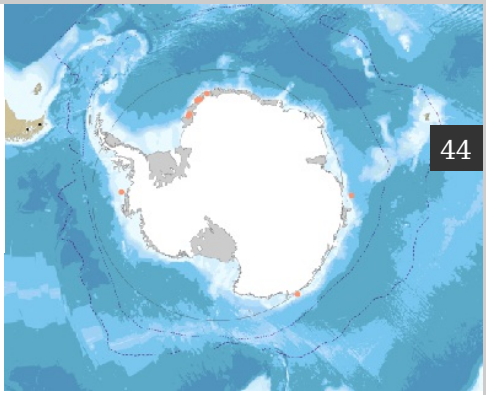
Ecology

L. lyrulata forms major structures which trap sediment such that as well as harbouring terebellid polychaetes and sea cucumbers, colonies also contain many burrowing species. It is a good competitor for space against other bryozoans. L. lyrulata (suspension) feeds on phytoplankton for just six months of the year (one of the shortest periods amongst bryozoans). It is probably eaten by the nudibranch mollusc Pseudotritonia gracilidens as well as by pycnogonans

Scientific name

Lepechinella drygalskii Schellenberg, 1926

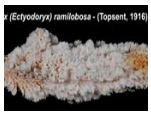
Animalia Arthropoda Malacostraca Amphipoda Atylidae Lepechinella

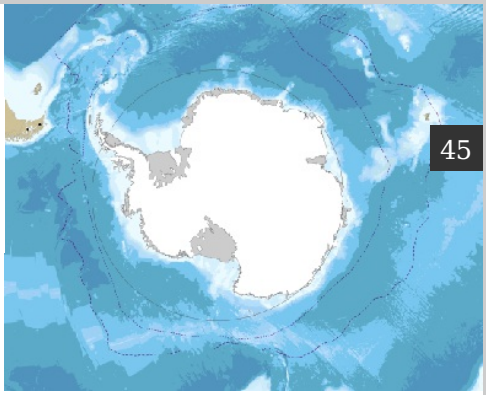


Scientific name

Lissodendoryx (Ectyodoryx) ramilobosa (Topsent, 1916)

Animalia Porifera Demospongiae Poecilosclerida Coelosphaeridae Lissodendoryx

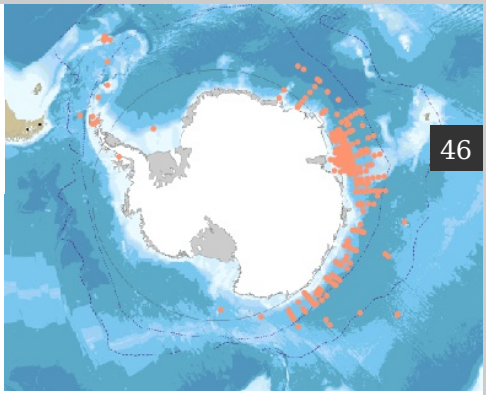




Scientific name

Cyllopus lucasii Bate, 1862

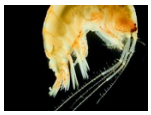
Animalia Arthropoda Malacostraca Amphipoda Cyllopodidae Cyllopus

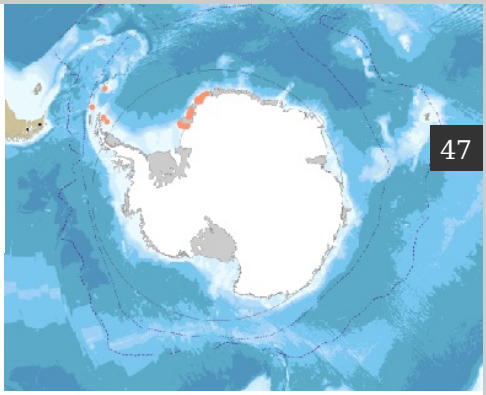


Scientific name

Ampelisca richardsoni Karaman, 1975

Animalia Arthropoda Malacostraca Amphipoda Ampeliscidae Ampelisca

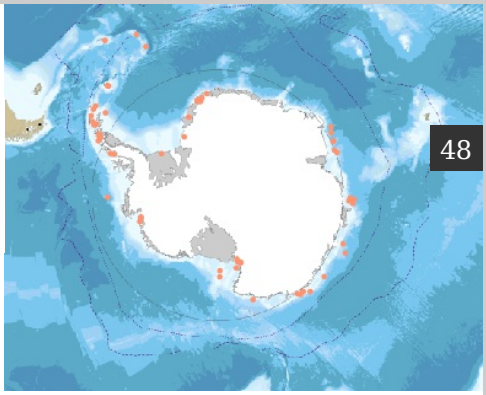




Scientific name

Himantozoum antarcticum (Calvet, 1909)

Animalia Bryozoa Gymnolaemata Cheilostomatida Bugulidae Himantozoum



Description

Orange/green to white in colour. This species forms long thin, branching fronds. These curl lengthwise so the colony seems to â€˜flopâ€™ a bit. The branches are just a few zooids wide

Distribution info

25m to deep water, on hard and soft substrates inside the Polar Frontal zone (so not Subantarctic islands) from South Georgia and Bouvet Island through to Antarctic continental waters. Has not been reported from East Antarctica.

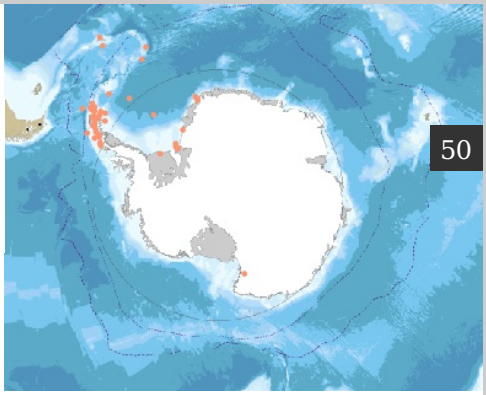
Ecology

H. antarcticum is an endemic Antarctic species, which can be very abundant but is probably ignored by zoologists mistaking it for a clump of algae. It (suspension) feeds for just over half the year and probably grows quickly (for a polar species). Its rear surface is often colonised by spirorbid worms.
The main observed predators of H. antarcticum are pycnogonans, though it seems likely other animals might eat it too.

Scientific name

Aglaophamus trissophyllus (Grube, 1877)

Animalia Annelida Polychaeta Phyllodocida Nephtyidae Aglaophamus



Description

Pale to black and up to 20cm long (and 1.5cm wide)

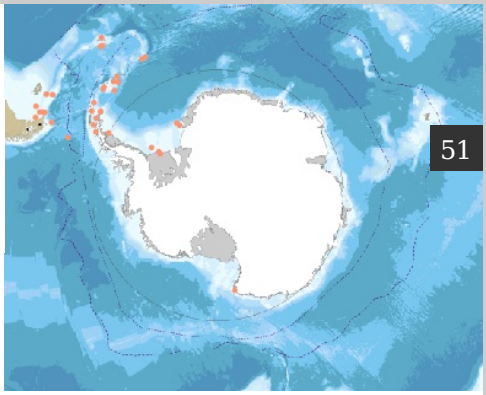
Distribution info

from low tide to 970m in soft substrates throughout Antarctica and north to southern Argentina.

Scientific name

Polyeunoa laevis McIntosh, 1885

Animalia Annelida Polychaeta Aciculata Polynoidae Polyeunoa



Distribution info

lorem ipsum dolor sit amet

Description

lorem ipsum dolor sit amet

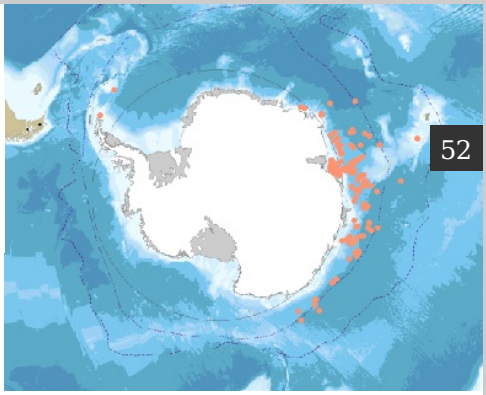
Distinguishing Characters

lorem ipsum dolor sit amet

Scientific name

Hydrurga leptonyx (Blainville, 1820)

Animalia Chordata Mammalia Carnivora Phocidae Hydrurga



Description

Long, slim body, with disproportionately large head separated from body by marked constriction at neck. They have a characteristic 'reptilian' appearance to their head; a wide gape of jaws and characteristically three-pronged teeth, which makes identification easy. The teeth of the leopard seal have a dual role; the large re-curved canines and incisors are designed for gripping and tearing prey, whereas the upper and lower tricuspid (three cusped) molars interlock to provide an efficient krill sieve. Leopard seals are sexually dimorphic, the females are larger than the males growing up to 3.8 m in length and weighing up to 500 kg, whereas males grow up to 3.3 m in length and weigh up to 300 kg. Leopard seals have a muscular, somewhat reptilian head, with a sinuous neck, highly arched back and long powerful flippers. The body is dark grey above and light grey below and they have white throats with black spots. These distinctive spots are what give the Leopard seal its name. As one might expect, Leopard seals have impressively long, sharp teeth which are well-adapted for cutting and tearing the flesh of prey. Their streamlined bodies are built for speed and power; their smooth, impermiable skin allowing them to easily slice through the water on pursuit dives. These characteristics combined with excellent sight and smell have established Leopard seals as one of the consummate predators of the Antarctic.

Leopard seals' main source of food is penguins and they can often be seen cruising in the vicinity of Adelie, Chinstrap, and Gentoo colonies. Typically, they will lie in wait by an icy ledge or rock outcrop, pouncing on the first penguin to dive into the water. Leopards will also hunt fish, squid and krill, and occasionally other seals like the Crabeater seal.

Scientists still have much to learn about the reproductive behaviors of Leopard seals due to the difficulty of monitoring breeding sites on the shifting pack ice of the Antarctic. Solitary animals, by nature, Leopard seals come on land only during the breeding season and then only in pairs or small groups. Females dig a hole in the ice early in the austral summer where they give birth to single pup after a 9 month gestation. The female protects the pups until they can take care of themselves.

Leopard seals may live for 26 years or more. Their only known natural predator is the Killer Whale.

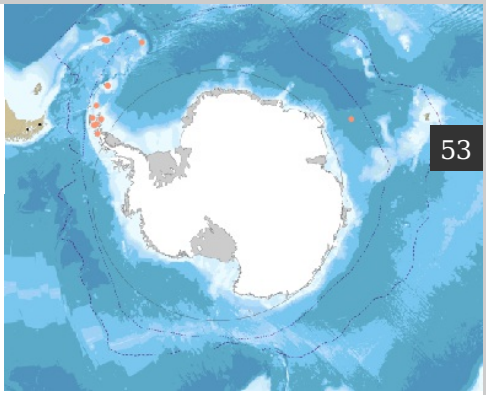
Distribution info

While the majority of the leopard seal population remains within the circumpolar Antarctic pack ice the seals are regular, although not abundant, visitors to the sub-Antarctic islands of the southern oceans and to the southern continents. The most northerly leopard seal sightings are from the Cook Islands. Juveniles appear to be more mobile, moving further north during the winter. Because it does not need to return to the pack ice to breed, the leopard seal can escape food shortages during winter by dispersing northwards. Every 4 to 5 years the number of leopard seals on the sub-Antarctic islands oscillates from a few to several hundred seals. The periodic dispersal could be related to oscillating current patterns or resource shortages in certain years. By comparison, adult seals that remain in Antarctica are much less mobile and remain within the same region throughout the year.
During summer, leopard seals breed on the outer fringes of the pack ice where they are solitary and sparsely distributed. Their density is inversely related to the amount of pack ice available to the seals as haul-out platforms. Pack ice cover varies with the season, from a maximum between August and October to a minimum between February and March. Population densities are greatest in areas of abundant cake ice (ice floes of 2 to 20 m in diameter) and brash ice (ice floes greater than 2 m in diameter), whereas they are least in areas with larger floes. Densities range from 0.003 to 0.151 seals/km2, and there is an age-related difference in their spatial behaviour. Due to intra-specific aggression there is a greater degree of spatial separation among older seals.

Scientific name

Jassa ingens (Pfeffer, 1888)

Animalia Arthropoda Malacostraca Amphipoda Ischyroceridae Jassa

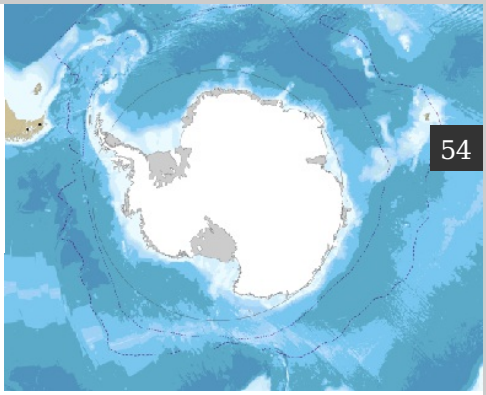


53

Scientific name

Litoscalpellum convexum (Nilsson-Cantell, 1921)

Animalia Arthropoda Maxillopoda Scalpelliformes Scalpellidae Litoscalpellum



Description

Small stalked goosebarnacle. Goose barnacles are difficult for the non-specialist to separate. Arcoscalpellum bouvieri and A. weltneri are very similar.

Distribution info

40m but usually deeper (200m+) water, known from around South Georgia and specimens found on a pycnogonan at Palmer, Antarctic Peninsula.

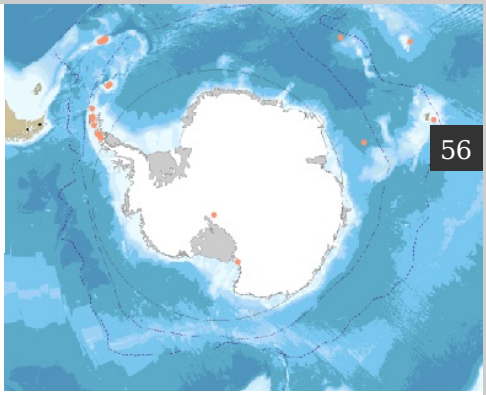
Ecology

L. convexum has been seen on a couple of occasions at South Georgia and once in the Antarctic Peninsula. Although acorn barnacles are famously near absent from southern polar waters, stalked (goose) barnacles do occur but usually in deep water. L. convexum is one of a number of similar species most of which are likely to be encountered as epibionts of other animals trawled up.

Scientific name

Djerboa furcipes Chevreux, 1906

Animalia Arthropoda Malacostraca Amphipoda Pontogeneiidae Djerboa



Description

Orange in colour

Distribution info

Found amongst algae in shallow water, along the Antarctic Peninsula and Continent.

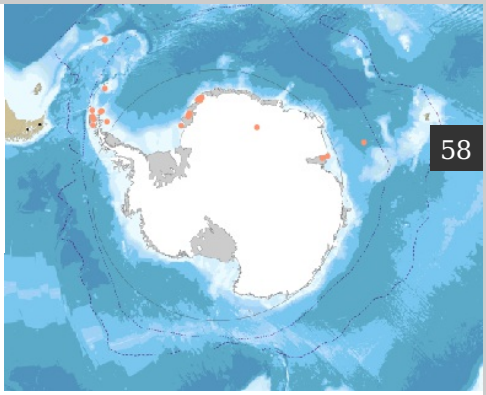
Ecology

This is a motile free-living species. Little is known of its ecology but it is opportunistic and has been reported feeding on decaying algae.

Scientific name

Epimeria georgiana Schellenberg, 1931

Animalia Arthropoda Malacostraca Amphipoda Epimeriidae Epimeria

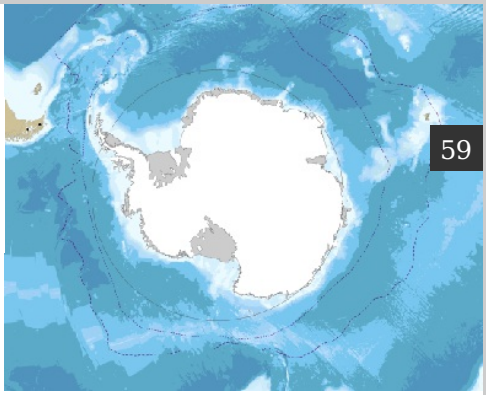


58

Scientific name

Clathria (Clathria) toxipraedita Topsent, 1913

Animalia Porifera Demospongiae Poecilosclerida Microcionidae Clathria



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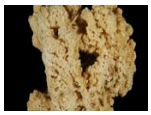
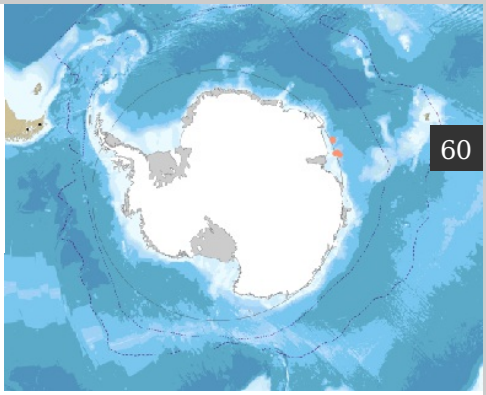


Scientific name

Tryphosella murrayi (Walker, 1903)

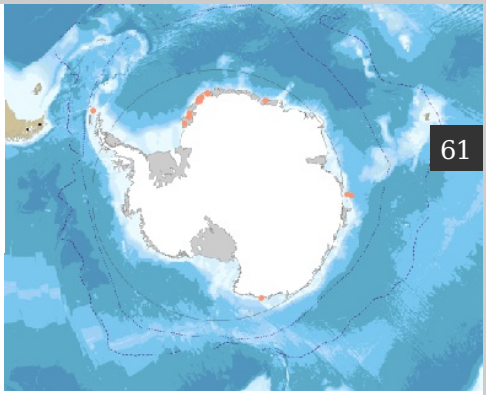
Animalia Arthropoda Malacostraca Amphipoda Lysianassidae Tryphosella



Scientific name

Hirondellea antarctica (Schellenberg, 1926)

Animalia Arthropoda Malacostraca Amphipoda Hirondelleidae Hirondellea

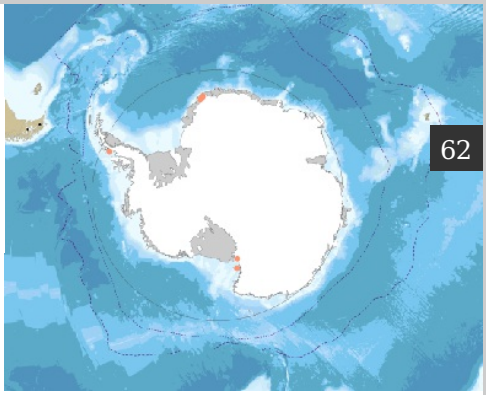


61

Scientific name

Clavularia frankliniana Roule, 1902

Animalia Cnidaria Anthozoa Alcyonacea Clavulariidae Clavularia



Description

Forms colonies of small, eight-tentacled polyps which are usually white and up to 1cm high.

Distribution info

12 to around 600m, on hard substrates from Sub-Antarctica to the Antarctic Peninsula and Continent.

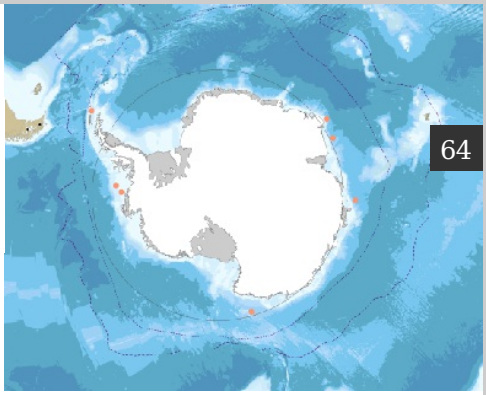
Ecology

Clavularia frankliniana is a suspension feeder, mostly on matter resuspended from the sea-floor, and is preyed on by sea spiders and nudibranchs such as Tritoniella belli. It contains compounds which deter most potential predators. Despite this T. belli not only feeds on it but appears to store and re-use these deterrent compounds in it's own defense.
Clavularia frankliniana reproduces throughout the year, both by releasing larvae and by asexual fission.

Scientific name

Asbestopluma belgicae (Topsent, 1901)

Animalia Porifera Demospongiae Poecilosclerida Cladorhizidae Asbestopluma



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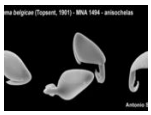
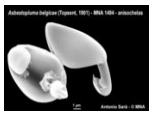
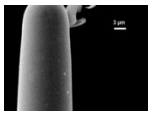
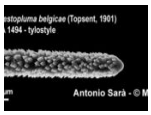
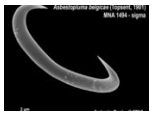
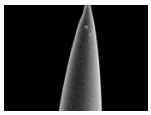
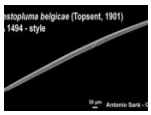
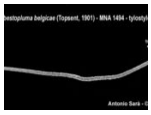
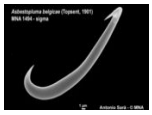




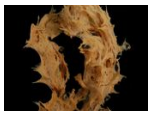




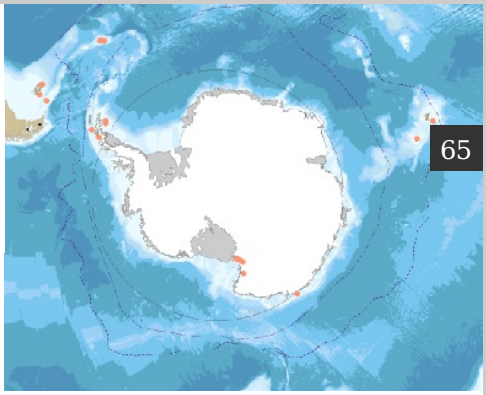



Scientific name

Dendrilla membranosa (Pallas, 1766)

Animalia Porifera Demospongiae Dendroceratida Darwinellidae Dendrilla

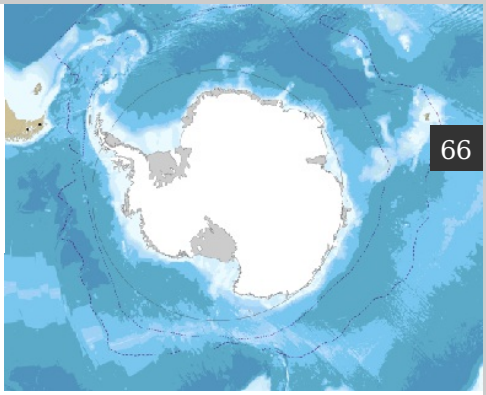




Scientific name

Mycale (Aegogropila) magellanica (Ridley, 1881)

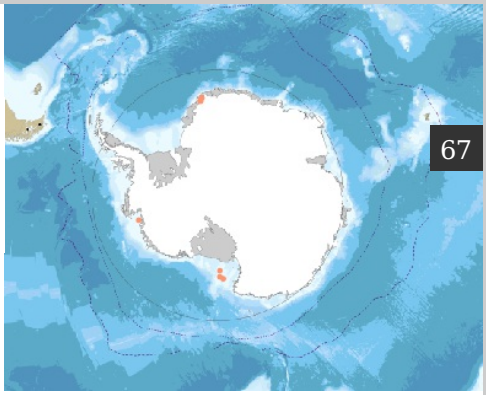
Animalia Porifera Demospongiae Poecilosclerida Mycalidae Mycale



Scientific name

Isoschizoporella similis Hayward & Thorpe, 1988

Animalia Bryozoa Gymnolaemata Cheilostomatida Eminooeciidae Isoschizoporella



Description

Usually orange in colour but varies from pink through to white. Colonies start life encrusting surfaces, but when two growing edges meet they grow against each other, up and out into the water column to form walls. These erect structures can be quite big (up to 15cm high).

Distribution info

25m to deep water, common on hard substrates in just a few localities in the South Orkney archipelago to the southern Antarctic Peninsula and Ross Sea. There are 3 other similar Antarctic species, though 1 (I. virgula) is only known from the Ross Sea.

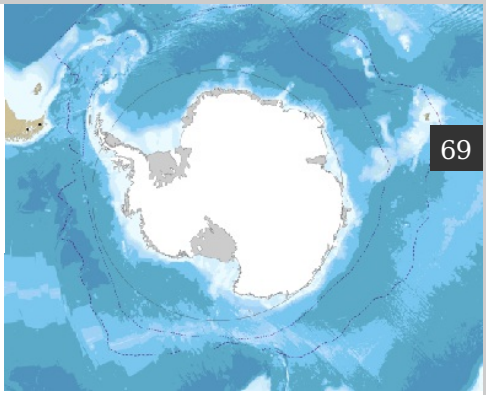
Ecology

I. similis, though not widespread in Antarctica, is common and important where it does occur. The species is a bioconstructor and the spaces enclosed by its walls are a haven for many species, as is also the case with Reteporella frigida. I. similis often occurs in areas of higher water flow. It is a suspension feeder and eats phytoplankton, probably smaller ciliates and flagellates. Its main predators are probably nudibranch sea slugs and pycnogonans.

Scientific name

Neoxenodice caprellinoides tristanensis Stebbing, 1888

Animalia Arthropoda Malacostraca Amphipoda Podoceridae Neoxenodice



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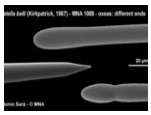
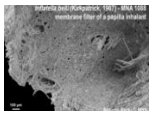
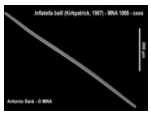
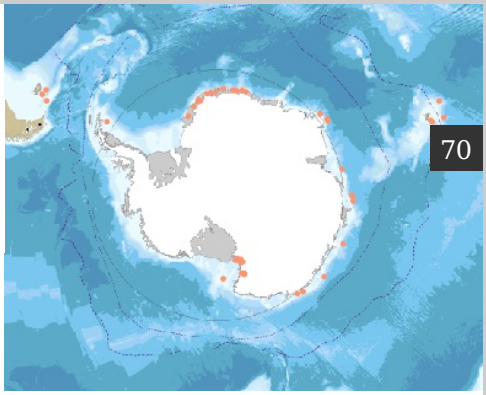
Scientific name

Inflatella belli (Kirkpatrick, 1907)

Animalia Porifera Demospongiae Poecilosclerida Coelosphaeridae Inflatella



Distribution info

18 to 506m on hard substrates from Sub-Antarctica to the Antarctic Peninsula and Continent

Description

Grows as distinctive yellow or brown spheres with large trumpet-shaped papillae. The sponge reaches up to 50cm diameter.

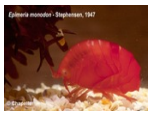
Ecology

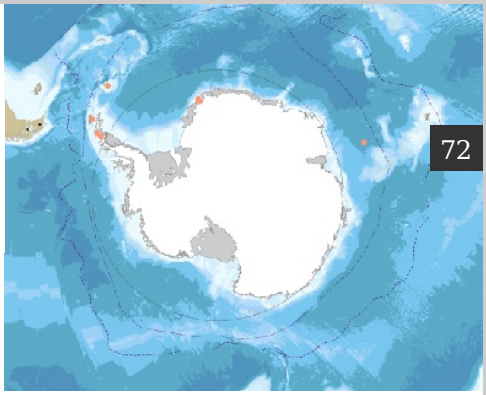
Inflatella belli is a suspension feeder and contains diatoms living within its cells, but their role is unclear.

Scientific name

Epimeria monodon Stephensen, 1947

Animalia Arthropoda Malacostraca Amphipoda Epimeriidae Epimeria





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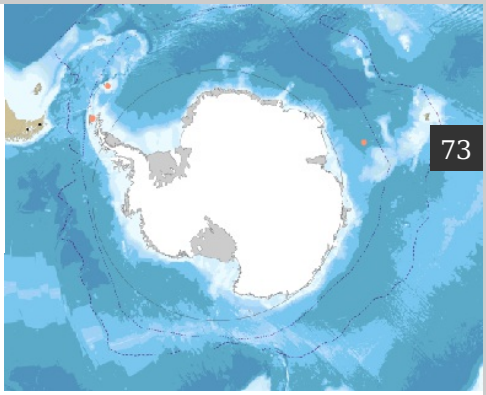
Scientific name

Gnathiphimedia fuchsi Thurston, 1974

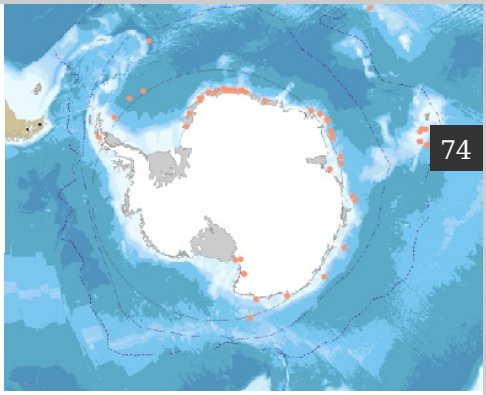
Animalia Arthropoda Malacostraca Amphipoda Iphimediidae Gnathiphimedia



Scientific name

Suberites caminatus Ridley & Dendy, 1886

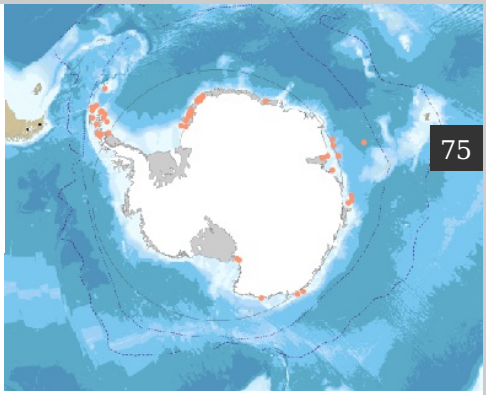
Animalia Porifera Demospongiae Hadromerida Suberitidae Suberites



Scientific name

Epimeria macrodonta Walker, 1906

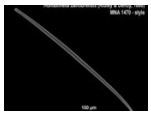
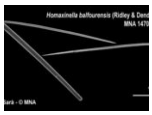
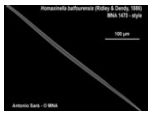
Animalia Arthropoda Malacostraca Amphipoda Epimeriidae Epimeria



Scientific name

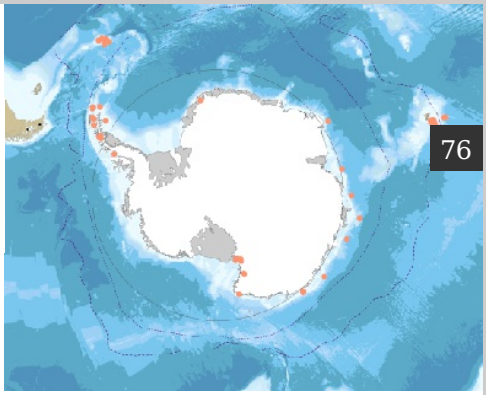
Homaxinella balfourensis (Ridley & Dendy, 1886)

Animalia Porifera Demospongiae Hadromerida Suberitidae Homaxinella





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Distribution info

Found on hard substrates? down to 550m from Sub-Antarctica to Continental Antarctica.

Description

White and club shaped or branching, with a smooth surface. Homaxinella balfourensis is attached to the substrate by stolons or a root system and grows up to 1m high, with 10cm long branches

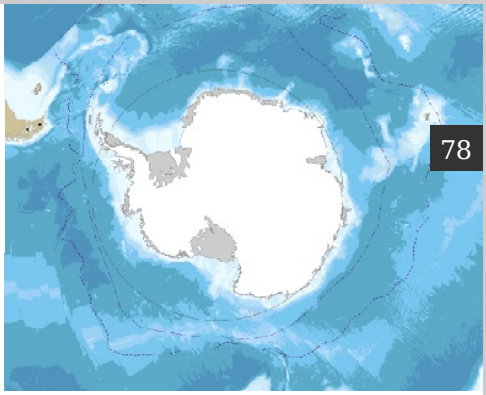
Ecology

Homaxinella balfourensis grows relatively rapidly in comparison to other Antarctic sponges (although still very slowly by tropical sponge standards). It contains substances with antifreeze properties, and can defend itself to some extent against diatom fouling which might otherwise interfere with respiration and feeding. It is a suspension feeder and is preyed on by seastars.
Homaxinella balfourensis contains diatoms living within its cells, but their role is unclear.

Scientific name

Ophiurolepis gelida (Koehler, 1901)

Animalia Echinodermata Ophiuroidea Ophiurida Ophiuridae Ophiurolepis



Description

Orangey brown or yellowish brown in colour, with a knobbly disc up to 2cm in diameter, and arms up to 6cm long.

Distribution info

40 to 2,725m on various substrates but mostly mud and soft sediments. Found from Sub-Antarctica and South Georgia to the Antarctic Peninsula and Continent.

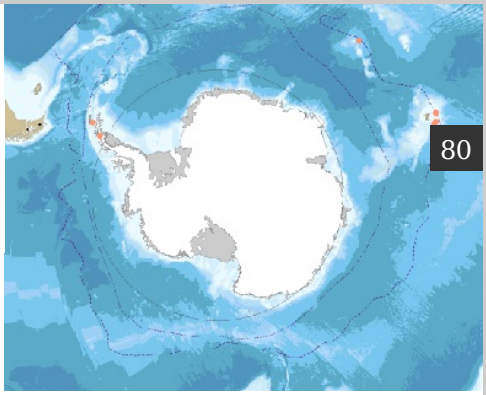
Ecology

Ophiurolepis gelida is an active predator, capturing and feeding on a wide variety of invertebrates and in particular polychaete worms. It also feeds on detritus by gathering surface sediment into small mounds, which it then engulfs, consuming any food within the mud. It is preyed on by another brittle star, Ophiosparte gigas, and by the giant isopod Glyptonotus antarcticus, and possibly by fish and seastars. Ophiurolepis gelida is frequently parasitised by a brown sponge, Iophon radiatus, which grows over the disc and arms of the brittle star and may obscure its colour.

Scientific name

Perknaster fuscus Sladen, 1889

Animalia Echinodermata Asteroidea Valvatida Ganeriidae Perknaster



Description

Colour variable depending on circumstances and diet; generally yellow to red, and blotchy. It reaches up to around 30cm across.

Distribution info

0 to 457m, generally on mud or amongst sponges, from Sub-Antarctica to the Antarctic Peninsula and Continent

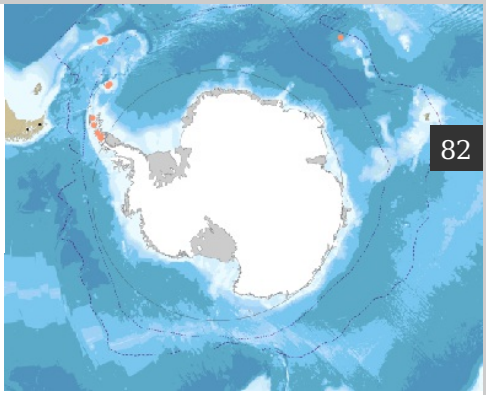
Ecology

Perknaster fuscus mainly eats sponges and specialises in particular on the slimy sponge, Mycale acerata, which is relatively fast growing and which, without predation, would potentially dominate sponge communities. Mycale acerata is one of the most toxic of Antarctic sponges and consequently avoided by most other sponge eaters. Perknaster fuscus also has chemicals in its body wall to defend it against predators, but is eaten by the anemone Urticinopsis antarcticus. It probably spawns once a year.

Scientific name

Oradarea bidentata K.H. Barnard, 1932

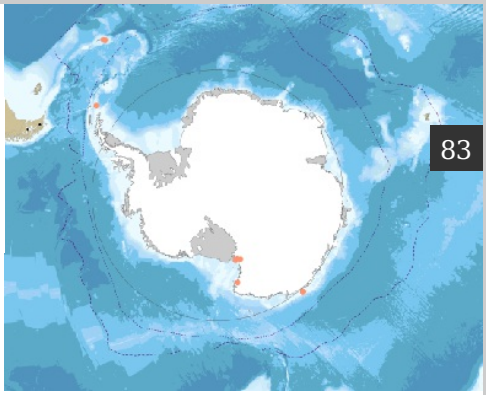
Animalia Arthropoda Malacostraca Amphipoda Calliopiidae Oradarea

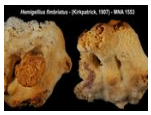


Scientific name

Hemigellius fimbriatus (Kirkpatrick, 1907)

Animalia Porifera Demospongiae Haplosclerida Niphatidae Hemigellius

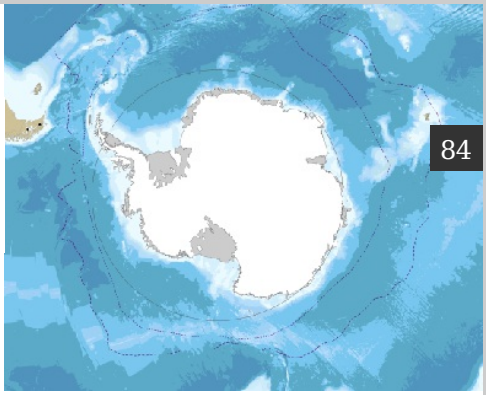




Scientific name

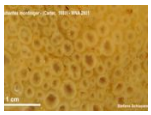
Pseudosuberites montiniger (Carter, 1880)

Animalia Porifera Demospongiae Hadromerida Suberitidae Pseudosuberites





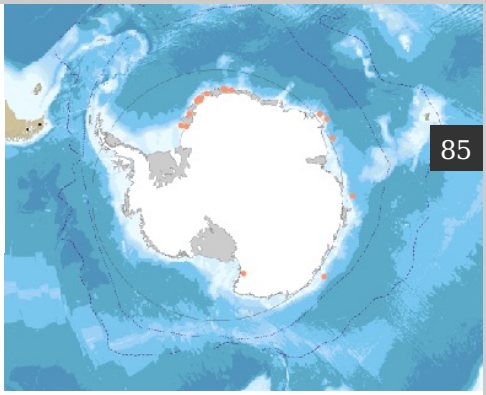




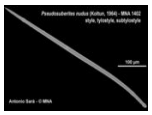
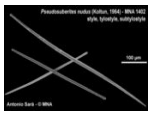
Scientific name

Pseudosuberites nudus Koltun, 1964

Animalia Porifera Demospongiae Hadromerida Suberitidae Pseudosuberites



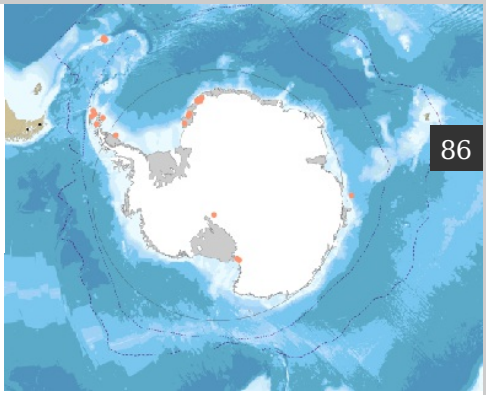



Scientific name

Melphidippa antarctica Schellenberg, 1926

Animalia Arthropoda Malacostraca Amphipoda Melphidippidae Melphidippa



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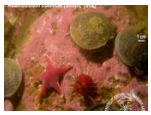
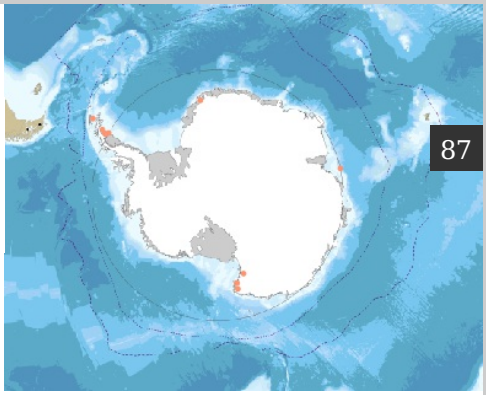
Scientific name

Adamussium colbecki (Smith, 1902)

Animalia Mollusca Bivalvia Pectinoida Pectinidae Adamussium

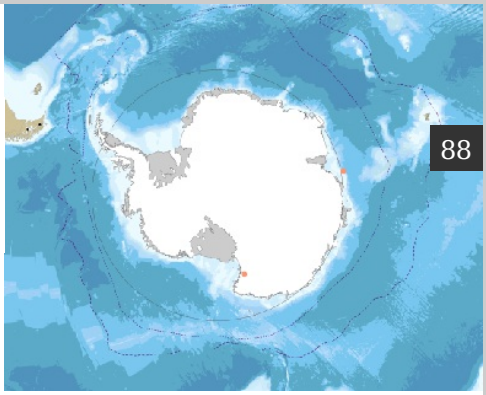




Habitat

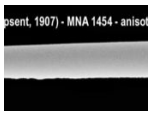
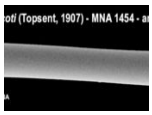
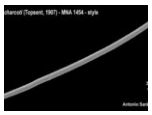
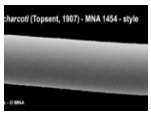
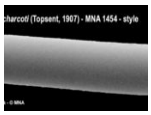
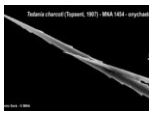
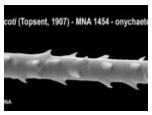
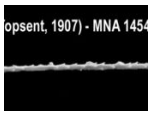
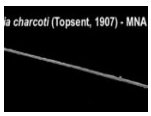
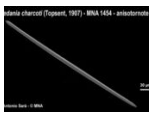
The endemic Antarctic scallop Adamussium colbecki is reported on a wide variety of substrates: in shallow waters it was found byssally attached to rocks (Stockton, 1984), while, deeper it was found free-living on sandy, gravelly and also silt-sandy bottoms, at the surface or recessed within the sediments (Berkman, 1990). Juveniles, were found byssally attached to adults valves and the remain attached during the swimming bout (Cattaneo-Vietti et al., 1997; Ansell et al., 1998; Chiantore et al., 2000)

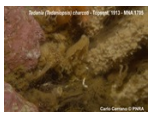


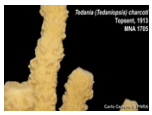
Scientific name

Tedania (Tedaniopsis) charcoti Topsent, 1907

Animalia Porifera Demospongiae Poecilosclerida Tedaniidae Tedania

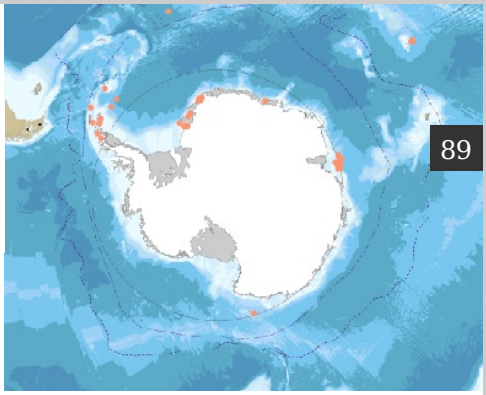




Scientific name

Psilaster charcoti (Koehler, 1906)

Animalia Echinodermata Asteroidea Paxillosida Astropectinidae Psilaster



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Description

Very variable in colour, from pink, red or purple to pale yellow or white. Reaches up to around 30cm across.

Distribution info

on a variety of substrates, but most commonly found on mud. Occurs from Sub-Antarctica to the Antarctic Peninsula and Continent.

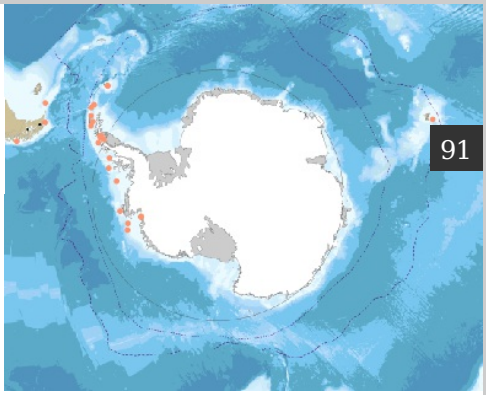
Ecology

Psilaster charcoti employs a variety of feeding strategies: actively preying on some invertebrate species, scavenging on dead material and faeces and ingesting mud to utilise any food in it. It produces large amounts of mucous, which indicates that it probably is also sometimes a ciliary-mucous feeder, collecting falling detritus with the mucous, which is then passed along to the mouth and ingested.
Other names: Ripaster charcoti

Scientific name

Lacerna eatoni (Busk, 1876)

Animalia Bryozoa Gymnolaemata Cheilostomatida Lacernidae Lacerna



Description

Grey/ yellow to white in colour but translucent when young. The apertures (from which the tentacles emerge) of each zooid are hemispherical with a characteristic notch in.

Distribution info

5m to deep water. The species occurs in Patagonia, Kerguelen Island and throughout west Antarctica. Two other Antarctic species occur in southern polar waters, L. hosteensis and L. watersi. Further Lacerna species occur in the Subantarctic.

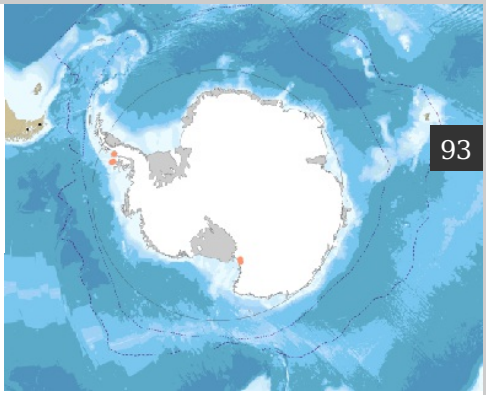
Ecology

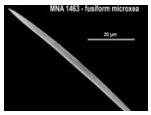
This species is uncommon on boulder undersurfaces but quite common on other organisms such as ascidians, other bryozoans (particularly I. tenuis), brachiopods, or molluscs. Little is known about its ecology. It is a suspension feeder, eating phytoplankton during spring and summer months. It is probably grazed by limpets and echinoids.

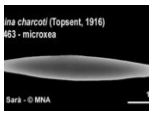
Scientific name

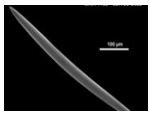
Microxina charcoti Topsent, 1916

Animalia Porifera Demospongiae Haplosclerida Niphatidae Microxina





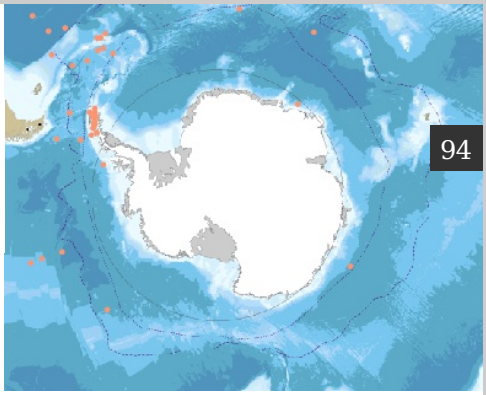




Scientific name

Parandania boecki (Stebbing, 1888)

Animalia Arthropoda Malacostraca Amphipoda Stegocephalidae Parandania



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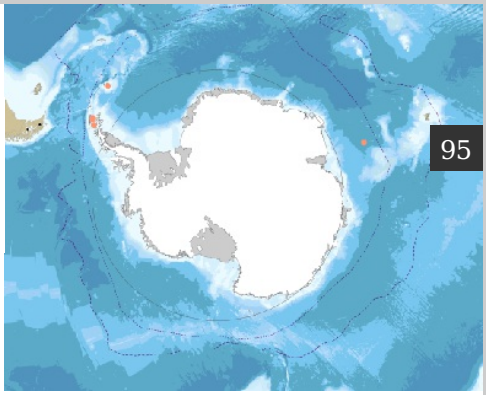
Scientific name

Gondogeneia redfearni (Thurston, 1974)

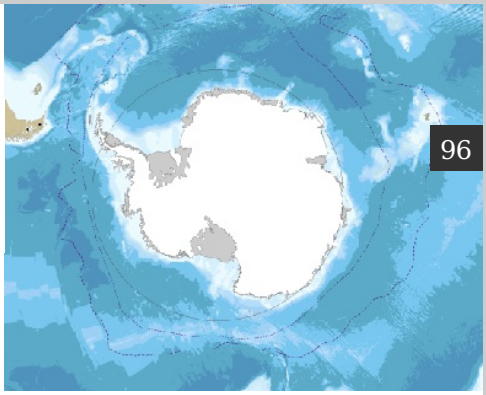
Animalia Arthropoda Malacostraca Amphipoda Pontogeneiidae Gondogeneia



Scientific name

Clathria (Axosuberites) nidificata (Kirkpatrick, 1907)

Animalia Porifera Demospongiae Poecilosclerida Microcionidae Clathria



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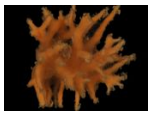
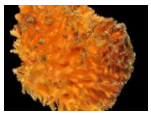
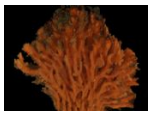
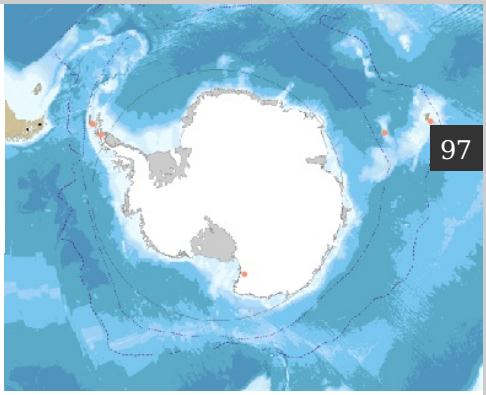




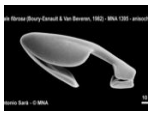
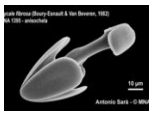
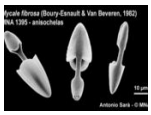
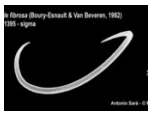


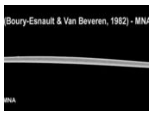
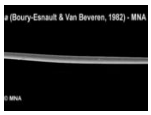
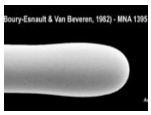
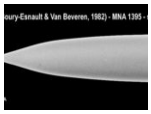


Scientific name

Mycale fibrosa Boury-Esnault & van Beveren, 1982

Animalia Porifera Demospongiae Poecilosclerida Mycalidae Mycale

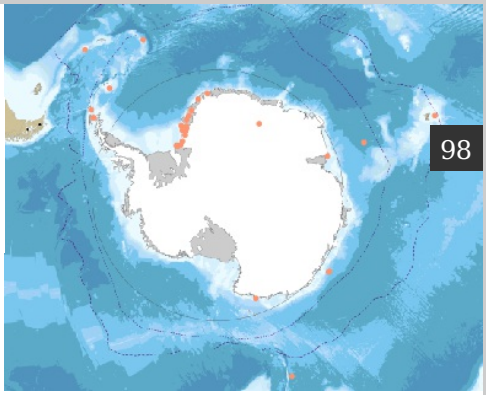





Scientific name

Abyssorchomene plebs (Hurley, 1965)

Animalia Arthropoda Malacostraca Amphipoda Uristidae Abyssorchomene



Distribution info

0 to 800m, but most common in deeper waters (below 50m). Found from Sub-Antarctica to the Antarctic Peninsula and Continent.

Size

Reaches up to 2.5cm in size

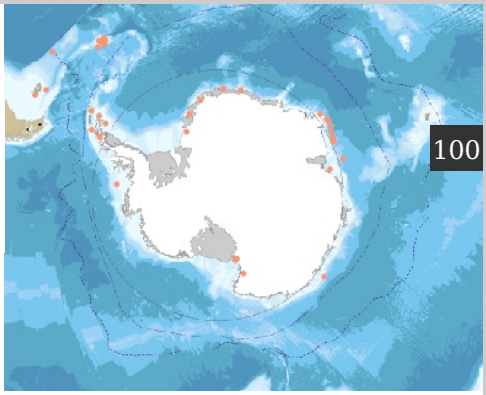
Ecology

Abyssorchomene plebs is an omnivorous scavenger and predator, and feeds in swarms on carrion, fecal matter and sometimes on live animals in a mass assault. It is preyed on by fish and the Antarctic tern (Sterna vittata) which probably eats it when carcasses containing amphipods get washed ashore. Abyssorchomene plebs reaches maturity after 18 months and reproduces and develops eggs in winter so that the young hatch out in spring. Experiments on this species have shown that the optimum temperature for its lifestyle is below freezing and it cannot tolerate temperatures much above 8 oC. This is probably the case for most Antarctic animals.

Scientific name

Microxina benedeni (Topsent, 1901)

Animalia Porifera Demospongiae Haplosclerida Niphatidae Microxina



Description

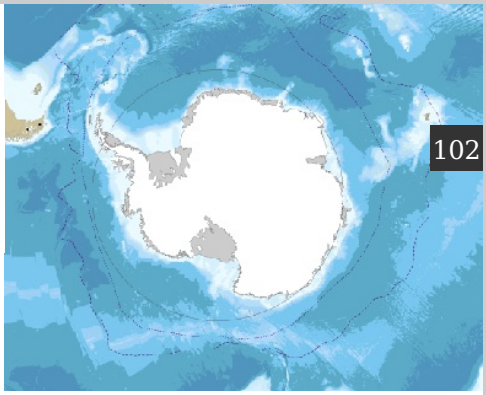
Identification is very difficult without expert knowledge. Microxina benedeni is usually white, orange or pink and irregularly shaped, growing up to 18cm high.

Distribution info

30 to 1,266m, from southern Argentina to Continental Antarctica

Ecology

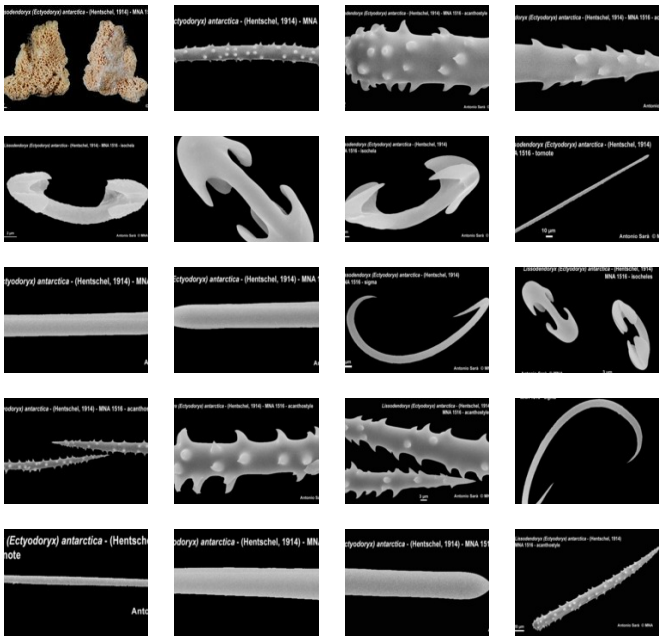
Microxina benedeni is a suspension feeder and contains diatoms living within its cells, but their role is unclear. Its predators include the dorid nudibranch Austrodoris kerguelenensis.



Scientific name

Lissodendoryx (Ectyodoryx) antarctica (Hentschel, 1914)

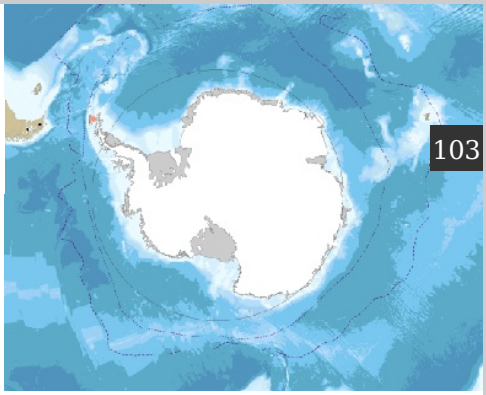
Animalia Porifera Demospongiae Poecilosclerida Coelosphaeridae Lissodendoryx



Scientific name

Molgula enodis (Sluiter, 1912)

Animalia Chordata Ascidiacea Stolidobranchia Molgulidae Molgula



Description

Small (a few cm) and usually orange or red with a stalk. The test is covered in fine hairs.

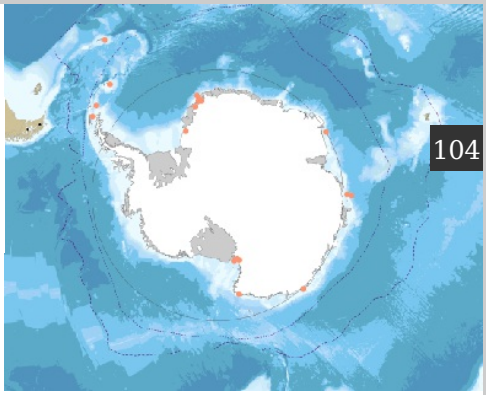
Distribution info

Found below about 10m around the Antarctic Peninsula and Continent.
Ecology: This is an uncommon ascidian and very little is known about it. It has been found growing on other, larger species of ascidians, such as Ascidia challengeri.

Scientific name

Orchomenella (Orchomenella) pinguides (Walker, 1903a)

Animalia Arthropoda Malacostraca Amphipoda Lysianassidae Orchomenella



Description

Yellow, growing up to around 1cm in size

Distribution info

0 to 800m from Sub-Antarctica and South Georgia to the Antarctic Peninsula and Continent.

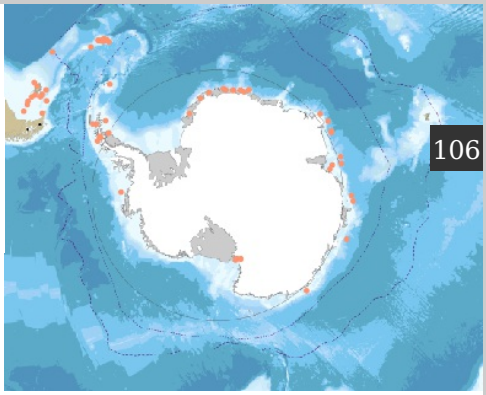
Ecology

Orchomenella pinguides mostly eats carrion and fecal matter, feeding in swarms. It is preyed on by octopus and by the emerald rockcod Trematomus bernacchii.

Scientific name

Isodictya setifera (Topsent, 1901)

Animalia Porifera Demospongiae Poecilosclerida Isodictyidae Isodictya



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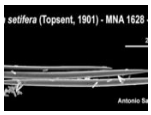
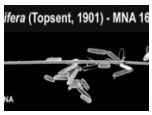
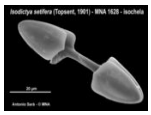
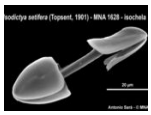
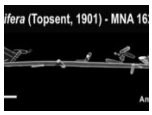






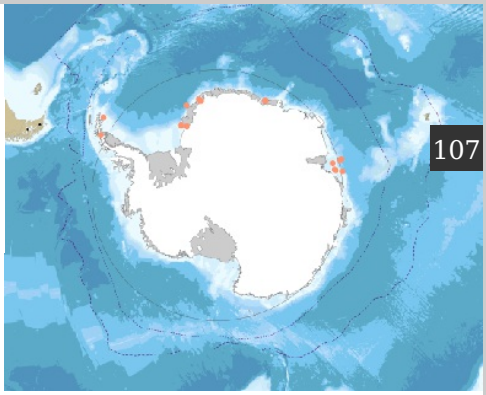




Scientific name

Macroptychaster accrescens (Koehler, 1920)

Animalia Echinodermata Asteroidea Paxillosida Astropectinidae Macroptychaster



Description

Usually yellow or orange in colour, with arms that are thick at the base but taper suddenly near the tip. This rarely seen seastar is very large, reaching up to 50cm across.

Distribution info

0 to 655m. Found mostly on fine sediments from Sub-Antarctica and South Georgia to the Antarctic Peninsula and Continent

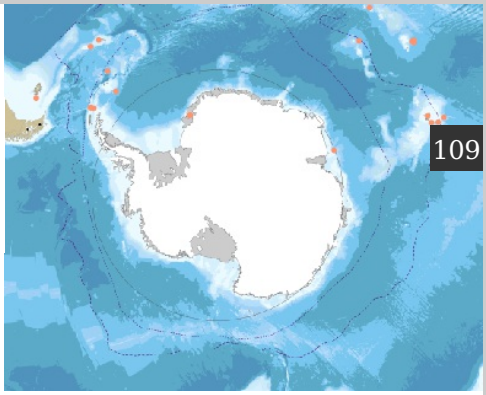
Ecology

Macroptychaster accrescens is an active predator on a variety of invertebrates such as gastropod and bivalve molluscs and brittle stars. It is also known to eat the seastars Odontaster validus and Odontaster meridionalis, and the sea urchin Sterechinus neumayeri

Scientific name

Labidiaster radiosus LÃ¼tken, 1871

Animalia Echinodermata Asteroidea Forcipulatida Labidiasteridae Labidiaster



Description

Has around 20-40 arms. The number of arms is very variable but increases with age, more arms being added as the sunstar grows. Labidiaster radiosus is large and reaches up to around 40cm across.

Distribution info

Found below 20m or so from southern South America to Sub-Antarctica and the Antarctic Peninsula.

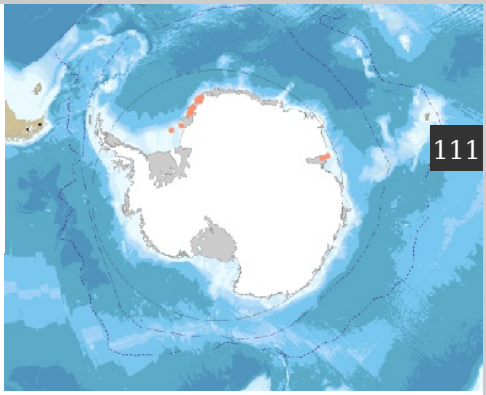
Ecology

Often seen with some of its arms raised in a feeding posture. Sunstars are primarily suspension feeders and catch food such as small crustaceans, plankton and sometimes fish from the water column, using their raised arms. Labidiaster radiosus has been considered to be the same animal as Labidiaster annulatus, consequently a lot of the literature for L. annulatus may actually apply to L. radiosus, however they are in fact two distinct species (they can be distinguished by close examination of the pedicellaria in the central disc).

Scientific name

Epimeria rubrieques De Broyer & Klages, 1991

Animalia Arthropoda Malacostraca Amphipoda Epimeriidae Epimeria



Description

This species is very distinctive, being red and fairly squat, with a spiky outline. It is large for an amphipod and reaches up to 7cm in length

Distribution info

Found as shallow as intertidal depth, but more usually deeper, between 80 to 550m. It occurs from Sub-Antarctica to the Antarctic Peninsula and Continent

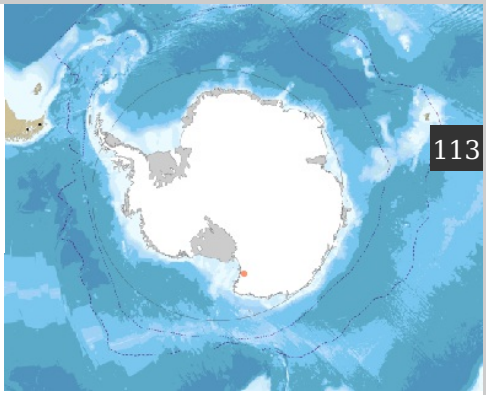
Ecology

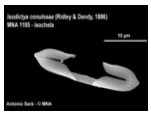
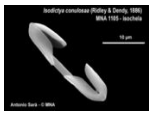
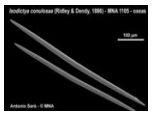
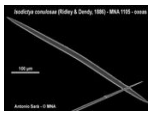
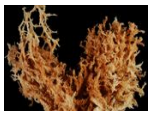
Epimeria rubrieques is an ambush predator with a variety of prey. It can swim, but only rarely does so.

Scientific name

Isodictya conulosa (Ridley & Dendy, 1886)

Animalia Porifera Demospongiae Poecilosclerida Isodictyidae Isodictya

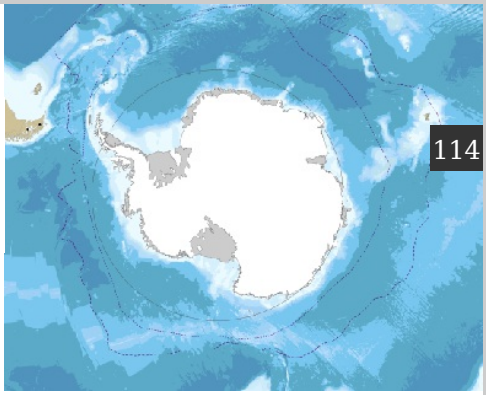


Scientific name

Paralomis spinosissima Birstein & Vinogradov, 1972

Animalia Arthropoda Malacostraca Decapoda Lithodidae Paralomis



Description

Reddish to orange. The entire dorsal surface is covered in spines. The carapace of an adult crab can be 20cm across, with a leg-span of around 50cm, although parasitism in some individuals can prevent moulting, so throughout their lifetime they remain at the size of their last moult and never reach full size.

Distribution info

Usually found in less than 700m of water from South Georgia and the Sub-Antarctic, to the Antarctic Peninsula.

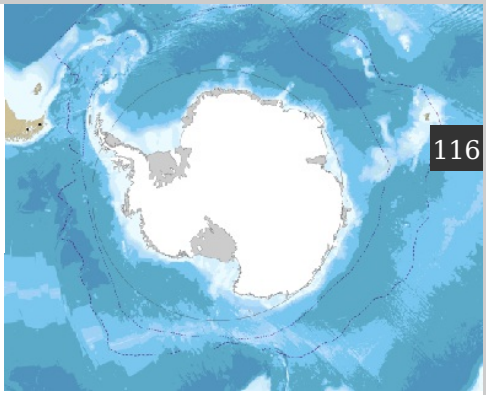
Ecology

This is an edible crab and has been fished around South Georgia in recent years.

Scientific name

Aegiochus glacialis (Tattersall, 1920)

Animalia Arthropoda Malacostraca Isopoda Aegidae Aegiochus



Distribution info

Found below 5m from Sub-Antarctica to the Antarctic Peninsula and Continent, as a parasite on Antarctic fish

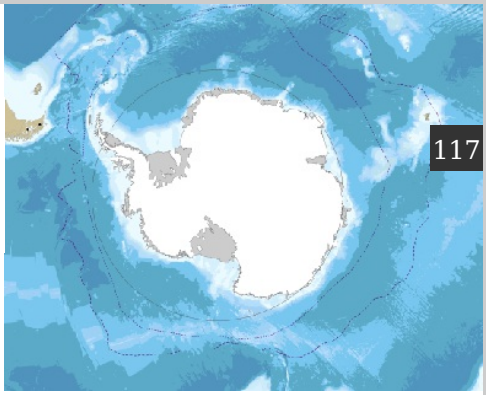
Description

Small (around 1cm long). Similar species are distinguished by eye size

Scientific name

Haliclona (Rhizoniera) dancoi (Topsent, 1913)

Animalia Porifera Demospongiae Haplosclerida Chalinidae Haliclona



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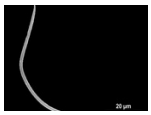
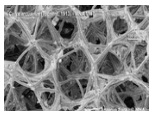
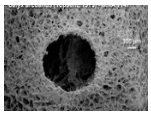
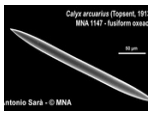
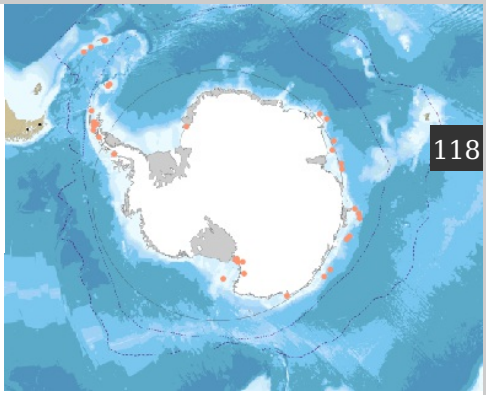
Scientific name

Calyx arcuarius (Topsent, 1913)

Animalia Porifera Demospongiae Haplosclerida Phloeodictyidae Calyx

Distribution info

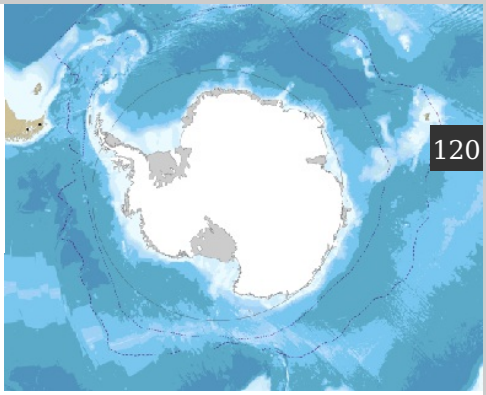
16 to 900m, from Sub-Antarctica to the Antarctic Peninsula and Continent

Description

Pale with distinctive flattened fronds and a hard stalk. Slow-growing, reaching a height of up to 50cm

Ecology

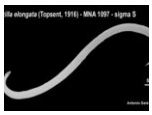
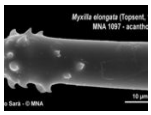
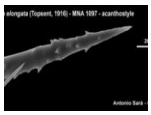
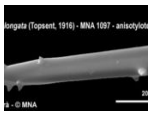
Calyx arcuarius is a suspension feeder. Its predators include the seastars Odontaster meridionalis and Acodontaster hodgsoni, and the dorid nudibranch Austrodoris kerguelenensis, although extracts from it have been shown to have antipredator and antibacterial effects.

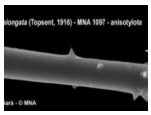
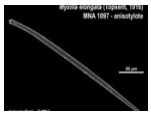
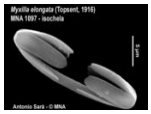


Scientific name

Myxilla (Myxilla) elongata Topsent, 1917

Animalia Porifera Demospongiae Poecilosclerida Myxillidae Myxilla

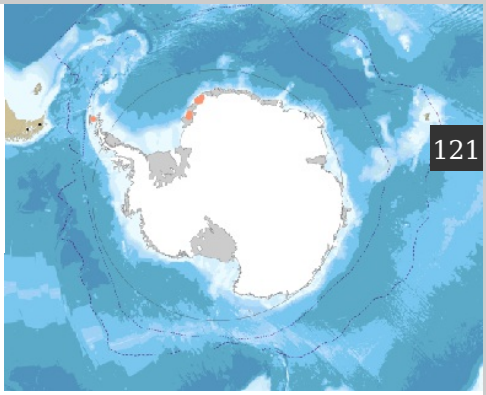







Scientific name

Pyura discoveryi (Herdman, 1910)

Animalia Chordata Ascidiacea Stolidobranchia Pyuridae Pyura



Description

Usually red, with a tough, wrinkled, leathery test. Pyura discoveryi grows up to about 10cm long.

Distribution info

15-680m. Generally found growing in clumps or patches from Sub-Antarctica to the Antarctic Peninsula and Continent.

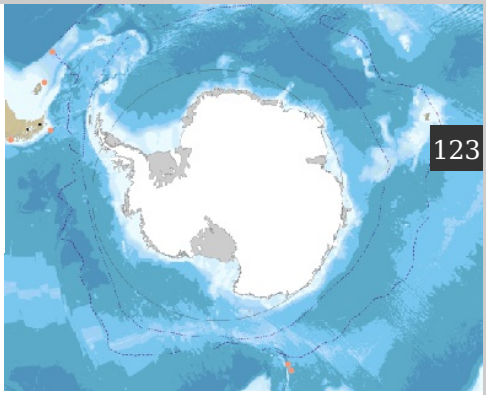
Ecology

Pyura discoveryi is a suspension feeder. Like most ascidians it will often grow on the surface of other organisms such as sponges and larger ascidians.

Scientific name

Desmophyllum cristagalli Milne Edwards & Haime, 1848

Animalia Cnidaria Anthozoa Scleractinia Caryophylliidae Desmophyllum



Description

Small, individual, pale yellow to orange# cups, up to 5cm in diameter.

Distribution info

A deep water coral found below 200m. It attaches to hard substrates, often other corals and occurs worldwide, a rarity amongst stony corals.

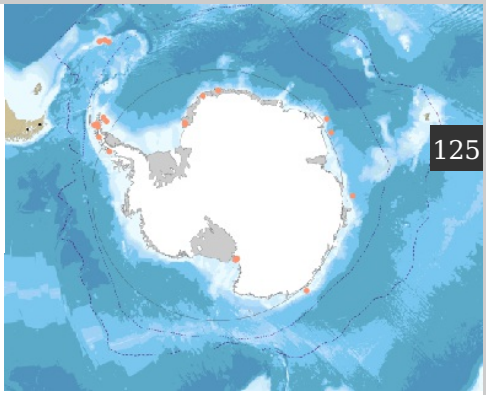
Ecology

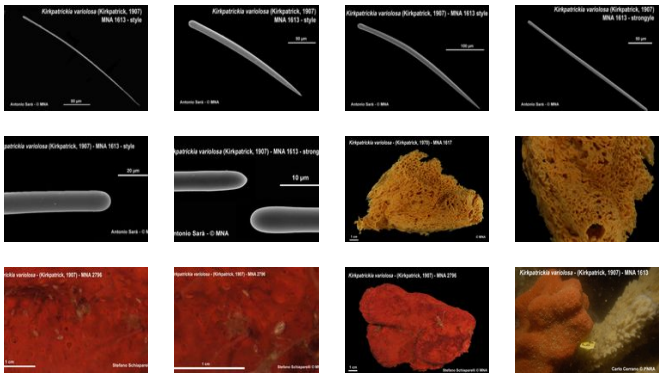
Desmophyllum dianthus is a suspension feeder. Stony corals, particularly in the tropics, often have symbiotic algae living within their tissue whose by-products greatly supplement the corals food supply, but Desmophyllum dianthus lives too deep for these algae to grow, as they require light.

Scientific name

Kirkpatrickia variolosa (Kirkpatrick, 1907)

Animalia Porifera Demospongiae Poecilosclerida Hymedesmiidae Kirkpatrickia





Distribution info

18 to 640m. Found in patchy assemblages from Sub-Antarctica and South Georgia to the Antarctic Peninsula and Continent.

Description

Vivid red and thickly branching, reaching a size of up to 30cm high

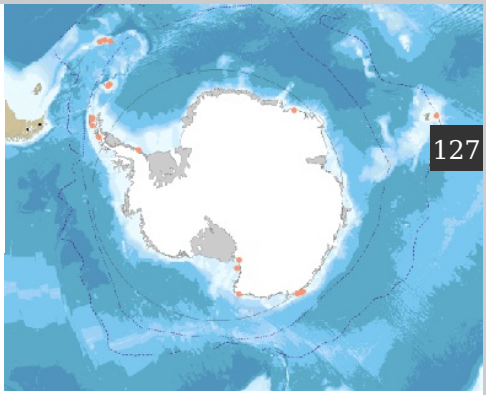
Ecology

Kirkpatrickia variolosa is a suspension feeder and preyed on by seastars, particularly Perknaster fuscus when juvenile, and Acodontaster conspicuus. Derivatives from Kirkpatrickia variolosa have been found to have antitumour and antiviral properties, and are being trialled as potential anti-cancer drugs.

Scientific name

Haplocheira plumosa Stebbing, 1888

Animalia Arthropoda Malacostraca Amphipoda Corophiidae Haplocheira



Description

Pale and translucent, with long feather-like hairs or spines on its forelimbs. Grows up to 1cm long.

Distribution info

0 to 250m from Sub-Antarctica and South Georgia to the Antarctic Peninsula and Continent

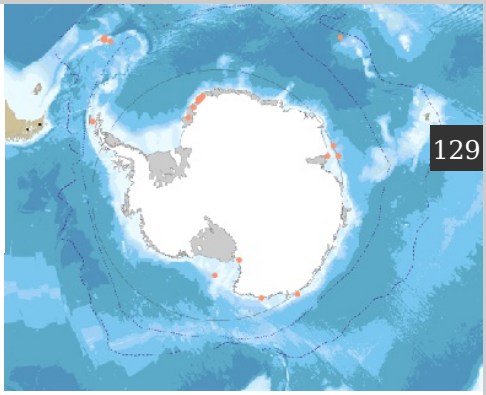
Ecology

Haplocheira plumosa is a filter feeder, using the feathery net of hairs on its forelimbs to sift food from the water column.*
Antarctic amphipods are generally preyed on by fish and squid.

Scientific name

Gnathiphimedia mandibularis K.H. Barnard, 1930

Animalia Arthropoda Malacostraca Amphipoda Iphimediidae Gnathiphimedia



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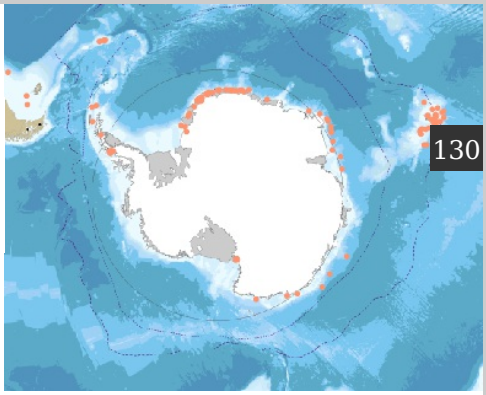
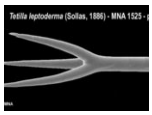
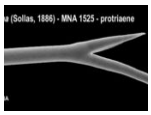
Scientific name

Tetilla leptoderma Sollas, 1886

Animalia Porifera Demospongiae Spirophorida Tetillidae Tetilla



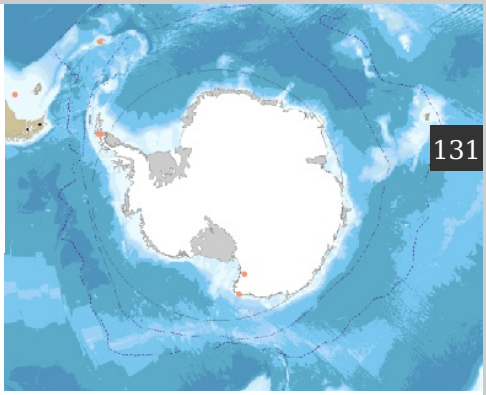


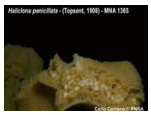
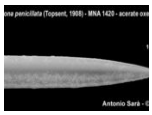
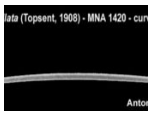


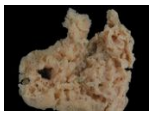
Scientific name

Haliclona penicillata (Topsent, 1908)

Animalia Porifera Demospongiae Haplosclerida Chalinidae Haliclona



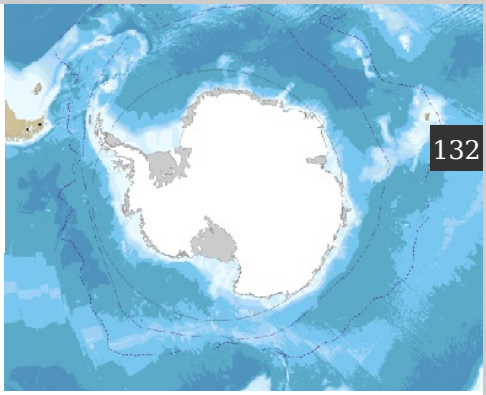





Scientific name

Acanthonotozomopsis pushkini (Bushueva, 1978)

Animalia Arthropoda Malacostraca Amphipoda Vicmusiidae Acanthonotozomopsis



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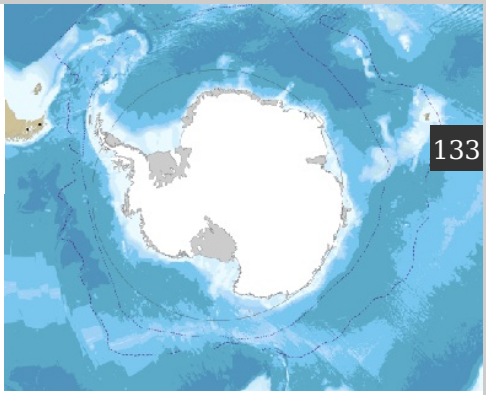
Scientific name

Balaenoptera musculus

Animalia Chordata Mammalia Cetacea Balaenopteridae Balaenoptera



Description

Largest of Earth's animals, the majestic Blue whale can be found in all the world's oceans. In summer, they frequent the fringes of the polar ice shelves, moving to tropical and subtropical waters during the winter months. They travel alone or occasionally in pairs, with the larger individuals occuring the farthest south. Once numbering close to 200,000 individuals, Blue whales were heavily exploited for their oil, meat, and baleen during the early to mid 1900's, severely reducing the species' population to near the point of extinction. Since the International Whaling Commission (IWC) imposed a hunting ban in 1966, Blues have returned to several areas of their former range, but recovery is slow (current populations are only 1% of their former numbers).

Blue whales are so named because their skin has a light-gray-and-white mottled pattern, which appears light blue when the whale is just below the surface of the water on a sunny day. Researchers use these skin patterns, which are unique to each animal, as a means of individual whale identification. Aside from the animal's massive size, distinguishing characteristics include its habit of showing its flukes when diving (other rorqual whales do not). Also, they have an unusually small dorsal fin which is set far back on the body.

Blue whales produce reverberating, low-frequency moans that can be heard in deep ocean waters up to 100 miles away. These moans enable the whales to remain in contact across a vast expanse of ocean.

Despite their enormous size, the Blue Whale's diet consists almost entirely of krill, tiny shrimplike crustaceans occurring in all oceans of the world. Feeding by lunging open-mouthed into dense groups of such creatures, they can consume as much as 4.5 tons in a day. Water and food rushing into the whale's pleated, expandable mouth is forced past hundreds of wide, black fringed baleen plates that hang from the roof of the mouth. The plates act like a sieve or comb, trapping the solid food inside the fringes and expelling the excess water. Occasionally working in pairs, Blue whales have been observed weave through schools of krill, apparently using each other's bodies to block the escape of their prey.

Female Blue whales reach sexual maturity at approximately 5 years of age. They may give birth once every two or three years. Mating occurs during the summer season, and the gestation period lasts about 11 months. A single calf is usually born the following spring; twins are rare. The calves nurse for seven or eight months, gaining as much as 200 pounds per day in the nutrient-rich Antarctic or Arctic waters.

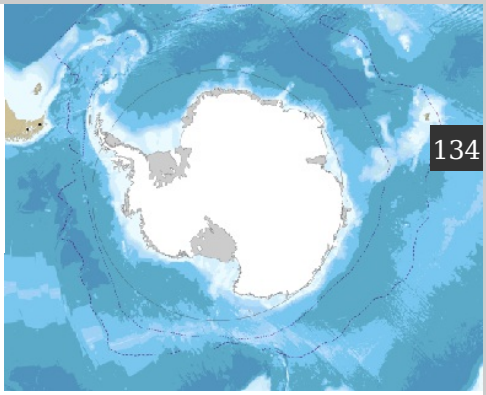
Size

85 to 100 ft long

Scientific name

Porania antarctica (E.A. Smith, 1876)

Animalia Echinodermata Asteroidea Valvatida Poraniidae Porania



Description

5 arms. Porania antarctica is very variable in colour and has a domed appearance, with short arms. It usually grows to a size of around 10cm across.

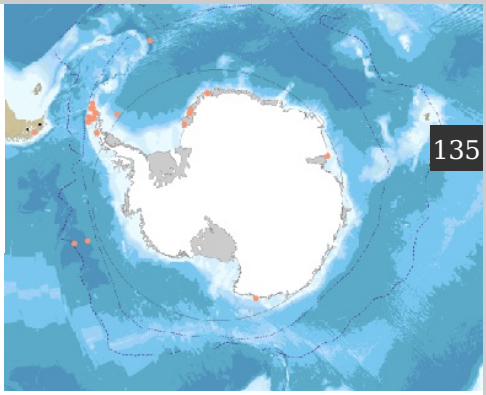
Distribution info

Intertidal to 3,200m, on various substrates from as far north as central Argentina and south to Continental Antarctica

Scientific name

Eurythenes gryllus Lichtenstein, 1822

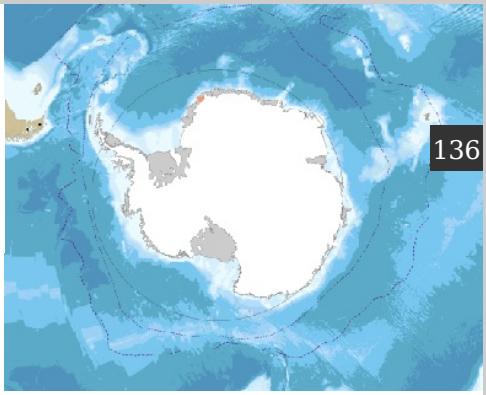
Animalia Arthropoda Malacostraca Amphipoda Eurytheneidae Eurythenes



Scientific name

Parepimeria bidentata Schellenberg, 1931

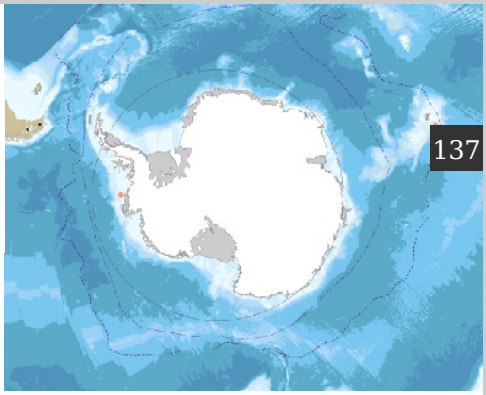
Animalia Arthropoda Malacostraca Amphipoda Amathillopsidae Parepimeria

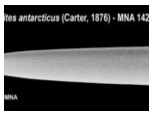
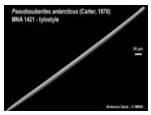
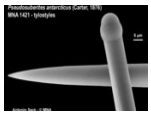
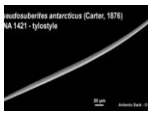
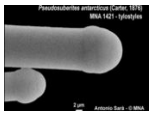
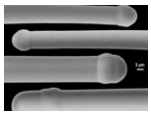


Scientific name

Pseudosuberites antarcticus (Carter, 1876)

Animalia Porifera Demospongiae Hadromerida Suberitidae Pseudosuberites

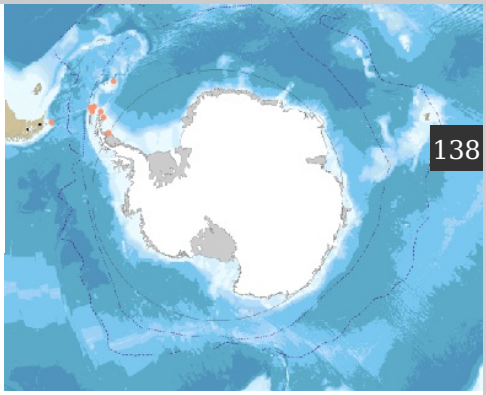


Scientific name

Eulagisca gigantea Monro, 1939

Animalia Annelida Polychaeta Aciculata Polynoidae Eulagisca



Description

Two of these specimens are gigantic Polynoids. That from Sta. 30 is the largest, and measures 148 mm. by 31 mm. (without the feet) for 37 chaetigers. The other large specimen is from Sta. 107, and measures 110 mm. by 20 mm. (without the feet) for 37 chaetigers. The third specimen is much smaller, and measures only 60 mm. by 12 mm. (without the feet), also for 37 chaetigers. There are 15 pairs of elytra arranged as in HarmothoÃ«. Except for traces of brown transverse hands upon the hack there is little colour in spirit. The bristles are conspicuously golden. Purplish-brown markings are discernible on the head except in the largest specimen. The head (fig. 4a) is roughly cordiform, and there are two pairs of almost contiguous eyes at the outermost edges of the prostomium. The lateral tentacles are inserted terminally, and there are no peaks. Most of the tentacles, etc., are lost, and the following account is a reconstruction from the three speci mens.

The palps are very long, reaching back to the tenth chaetiger. They are papillated, but the papillae, instead of being diffuse, are arranged in six rows of two or three lines of papillae. The median tentacle is lost. Below the median tentaculophore there is a subtentacular cirrus about half the length of the head. The lateral tentacles are about half as long as the tentacular cirri, which they otherwise resemble. They are papillated, and have a subterminal enlargement and a filiform tip. At the base of the tentacular cirri there are an aciculum and a few bristles. At the back of the head there is a conical fleshy nuchal pad extending almost to the level of the hinder pair of eyes. Behind this pad there is an occipital flap or gibbosity.

The elytra have become detached, and those belonging to the smallest specimen are lost. Those belonging to the largest example (fig. 4b) are huge, leathery, reniform structures, meas uring about 30 mm. by 21 mm. at the widest part. They are flesh-coloured, with the border op posite the hilum pigmented dark brown. Near the hilum they are thickly covered with small tubercles, but the rest of the scale has a dense covering of longer and shorter spines (fig. 4e) reÂsembling those of HarmothoÃ« crosetensis, interspersed with rather soft ovate vesicles. Both spines and vesicles are largest near the border opposite the hilum (fig. 4d). The elytra of the second of the large specimens are relatively considerably smaller, and are splashed with brown markings. They differ from those of the largest specimen in that the ovate vesicles are absent and are reÂplaced by a relatively small number of gigantic tubercles surmounted by clusters of long spines (fig. 4e).

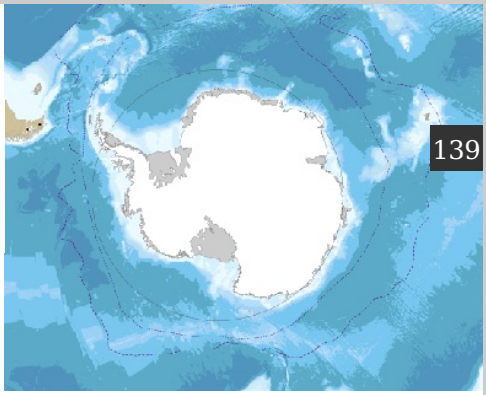
The elytrophores are prominent, and pseudo-elytrophores are present. The dorsal cirri are set low down on the feet, and the cirrophores have a prominent lateral expansion. The dorsal cirri are lost in all except the smallest specimen, and in this they are hirsute, and reach to the end of the ventral bristles. The ventral cirri reach to the end of the foot.

The feet (fig. 4f) resemble those of Eulagisca corrientis (see Monro, 1930, fig. 11b). The dorsal ramus sends out a long sheathed aciculum behind and below the dorsal bristle bundle. The ventral ramus has a longer sheather aciculum in front of the ventral bristle bundle.

The dorsal bristles (fig. 4g) are very numerous, almost as long as the ventral, rather slender and pectinated. The ventral bristles (fig. 4h) are more numerous and finer than the dorsal. They have frills extending over about a quarter of their length, and a rather long and delicate uni-dentate naked tip. The anus is terminal.

This species is close to the type-species, E. corrientis McIntosh, but differs chiefly in the ornamentation of the elytra. The elytra of E. corrientis are smooth. McIntosh described them as comparatively smooth over the greater part of the area, and having a few clavate cilia at the pos terior border. Of the Discovery Committee's material a specimen from the Palmer Archipelago has a few elytra, and these agree with McIntosh's account, except that I see no cilia. Moreover. I suspect that the specimens attributed to McIntosh's species by Benham (1921, 43) may belong to the present species. Benham, in describing one of the second pair of scales, writes, "there are three large, broad, round-tipped conical tubercles near the external margin, and springing from the surface of the scale between them, but nearer to the margin are a few long, fine, cylindrical hair-like papillae. The concealed portion of the

elytron bears numerous small, rounded, low, and highly refringent



Scientific name

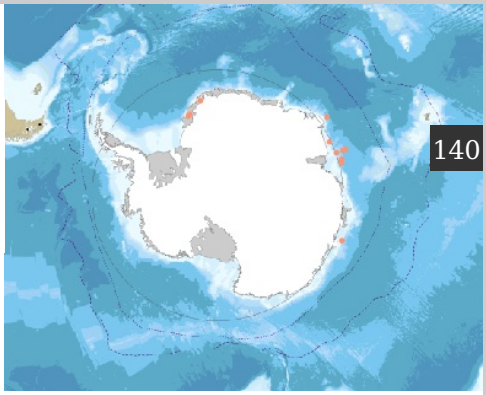
Tedania (Tedaniopsis) massa Ridley & Dendy, 1886

Animalia Porifera Demospongiae Poecilosclerida Tedaniidae Tedania

Scientific name

Dissostichus mawsoni Norman, 1937

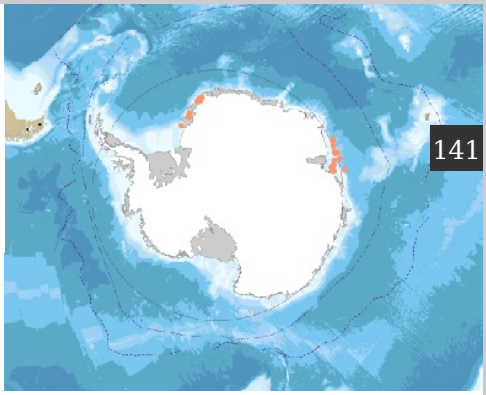
Animalia Chordata Actinopterygii Perciformes Nototheniidae Dissostichus



Scientific name

Ampelisca barnardi Nicholls, 1938

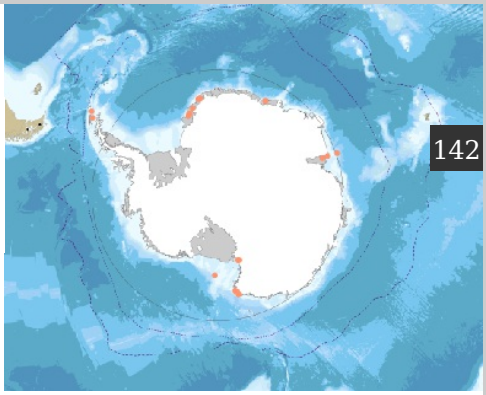
Animalia Arthropoda Malacostraca Amphipoda Ampeliscidae Ampelisca



Scientific name

Epimeria robusta K.H. Barnard, 1930

Animalia Arthropoda Malacostraca Amphipoda Epimeriidae Epimeria



Description

Large for an amphipod, reaching up to 4cm, and with an overall roundish shape.

Distribution info

80 to 550m, from Sub-Antarctica to the Antarctic Peninsula and Continent. It is found on the substrate or on benthic organisms such as sponges.

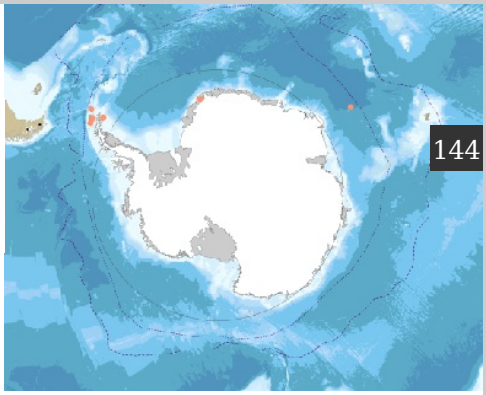
Ecology

Epimeria robusta is an ambush predator and feeds on a variety of small invertebrates including plankton, sponges, worms, echinoderms and other crustaceans. In its turn it is preyed on by fish and squid

Scientific name

Paraceradocus gibber Andres, 1984

Animalia Arthropoda Malacostraca Amphipoda Maeridae Paraceradocus



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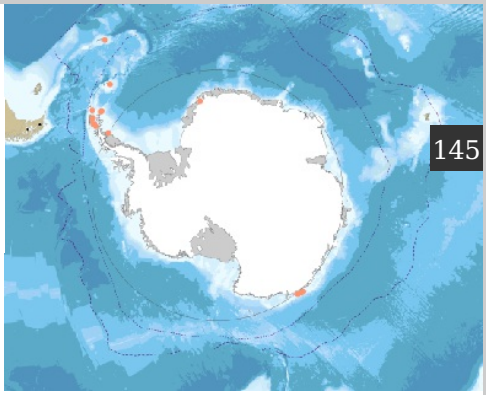
Scientific name

Liljeborgia georgiana Schellenberg, 1931

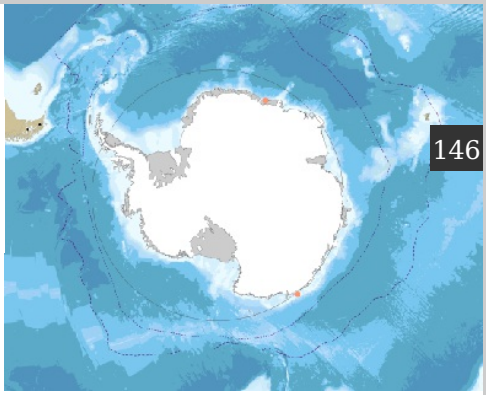
Animalia Arthropoda Malacostraca Amphipoda Liljeborgiidae Liljeborgia



Scientific name

Oediceroides emarginatus Nicholls, 1938

Animalia Arthropoda Malacostraca Amphipoda Oedicerotidae Oediceroides



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Description

Large and yellow or orange with red eyes and hairs on its antennae. Reaches up to 5.5 cm in length

Distribution info

Oediceroides emarginatus generally lives with its back legs burrowed into sand and head out in the open. It is found from Sub-Antarctica to the Antarctic Peninsula

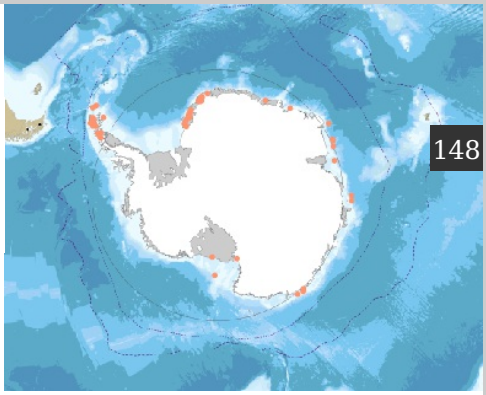
Ecology

Little is know about its feeding habits but it is probably an opportunistic predator and scavenger

Scientific name

Waldeckia obesa (Chevreux, 1905)

Animalia Arthropoda Malacostraca Amphipoda Lysianassidae Waldeckia



Distribution info

Found down to 660m, but most abundantly in shallow algae, from Sub-Antarctica to the Antarctic Peninsula and Continent

Description

Yellow or brown in colour and roundish and squat in outline. Reaches up to 3.5cm long

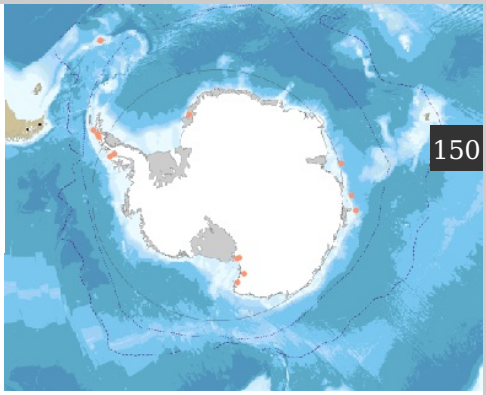
Ecology

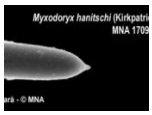
Waldeckia obesa is a necrophage. It eats carrion, usually in a highly decomposed state. Although it lives in sub-tidal waters one of its predators is known to be the Antarctic tern (Sterna vittata). Possibly in this instance predation occurs when carcasses containing amphipods get washed ashore, bringing them within easy reach of the birds.

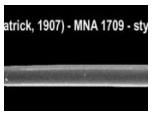
Scientific name

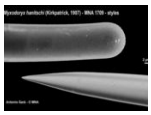
Myxodoryx hanitschi (Kirkpatrick, 1907)

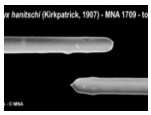
Animalia Porifera Demospongiae Poecilosclerida Hymedesmiidae Myxodoryx

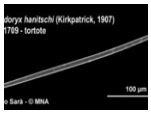








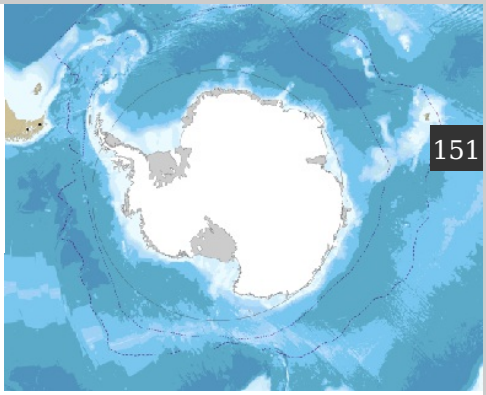




Scientific name

Myxilla (Myxilla) elongata Topsent, 1917

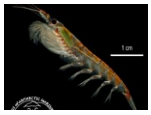
Animalia Porifera Demospongiae Poecilosclerida Myxillidae Myxilla

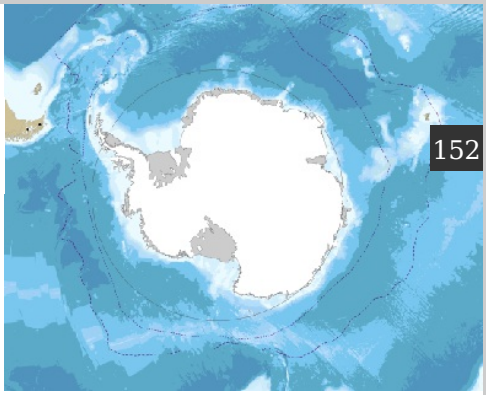


Scientific name

Euphausia superba

Animalia Arthropoda Malacostraca Euphausiacea Euphausiidae Euphausia

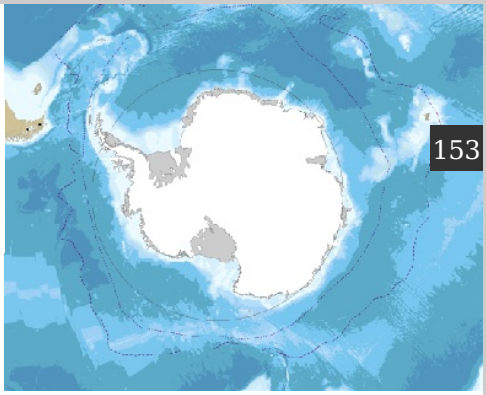




Scientific name

Tedania (Tedaniopsis) charcoti Topsent, 1908

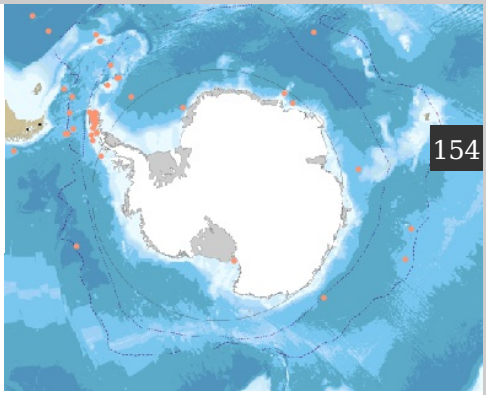
Animalia Porifera Demospongiae Poecilosclerida Tedaniidae Tedania



Scientific name

Cyphocaris richardi Chevreux, 1905

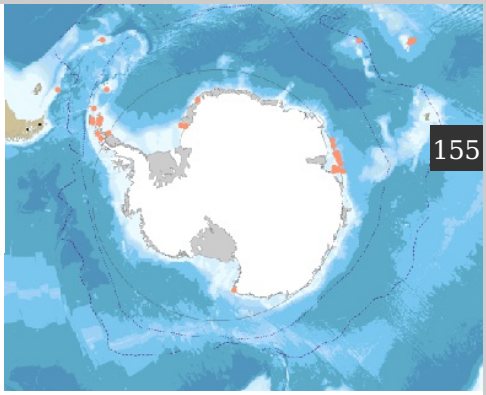
Animalia Arthropoda Malacostraca Amphipoda Cyphocarididae Cyphocaris



Scientific name

Diplasterias brucei (Koehler, 1908)

Animalia Echinodermata Asteroidea Forcipulatida Asteriidae Diplasterias



Description

Diplasterias brucei normally has five arms, but there is a 6-armed form common at South Georgia. Colour is very variable, from pale blue-green to yellow or orange and it grows to a size of around 25cm across.

Distribution info

0 to 725m on a variety of substrates from Sub-Antarctica and South Georgia to the Antarctic Peninsula and Continent.

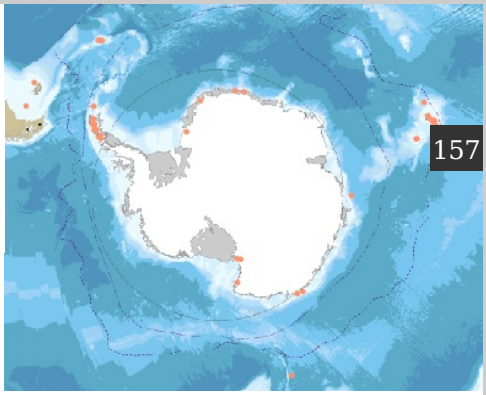
Ecology

Unlike many seastars, Diplasterias brucei does not appear to eat sponges. Its primary food source is molluscs, and in particular the bivalve Limatula hodgsoni, but it will also scavenge on dead matter. It is eaten by the anemone Urticinopsis antarctica. Diplasterias brucei broods its young until they are fully developed into juvenile seastars.

Scientific name

Isodictya kerguelenensis (Ridley & Dendy, 1886)

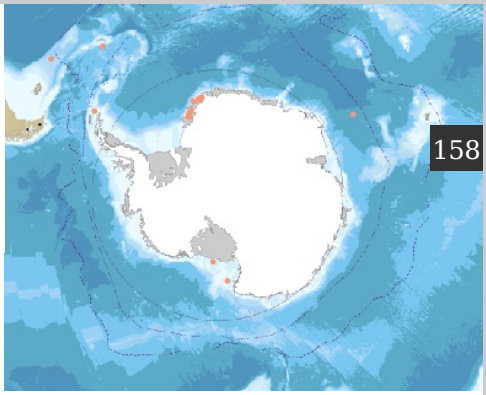
Animalia Porifera Demospongiae Poecilosclerida Isodictyidae Isodictya



Scientific name

Bathypanoploea schellenbergi Holman & Watling, 1983

Animalia Arthropoda Malacostraca Amphipoda Stilipedidae Bathypanoploea

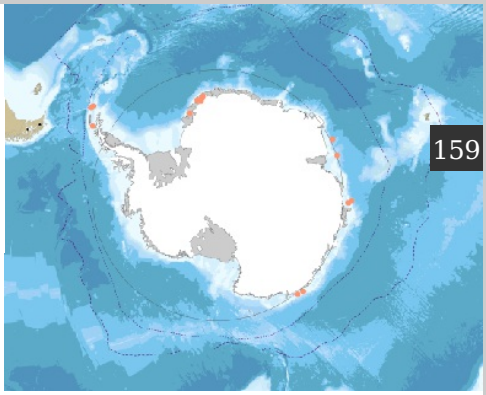


158

Scientific name

Epimeria grandirostris (Chevreux, 1912)

Animalia Arthropoda Malacostraca Amphipoda Epimeriidae Epimeria

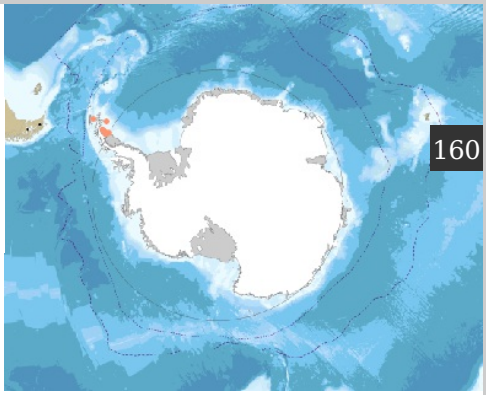


159

Scientific name

Corella eumyota Traustedt, 1882

Animalia Chordata Ascidiacea Phlebobranchia Corellidae Corella



Description

Colour is ivory or grey. Corella eumyota sometimes has a short stalk, and grows up to 24cm long.

Distribution info

0 to 842m, but not usually found shallower than 20m. Corella eumyota occurs on a variety of substrates around Antarctica and the Sub-Antarctic and in temperate waters such as New Zealand, South Africa and southern Australia. It has also been recently (July 2002) found off northern France where it has probably newly invaded from southern waters. This is the first record of it in the northern hemisphere.

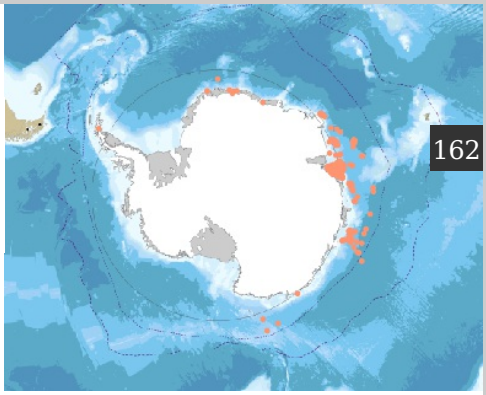
Ecology

Corella eumyota has been shown to grow fast at first (up to 14.4cm in two years), but growth slows as it gets older. It is a suspension feeder, mostly on material stirred up from the substrate. It broods its young until they are well developed and they settle a few minutes after release, so Corella eumyota is often found in clumps. Spawning occurs in the Antarctic summer.

Scientific name

Leptonychotes weddellii (Lesson, 1826)

Animalia Chordata Mammalia Carnivora Phocidae Leptonychotes



Distinguishing Characters

Small head relative to body size, unique body markings

Distribution info

Antarctic circumpolar - the most southerly distribution of any seal

Size

Females average ~2.5 metres in length, females weigh anywhere from 250-550kg

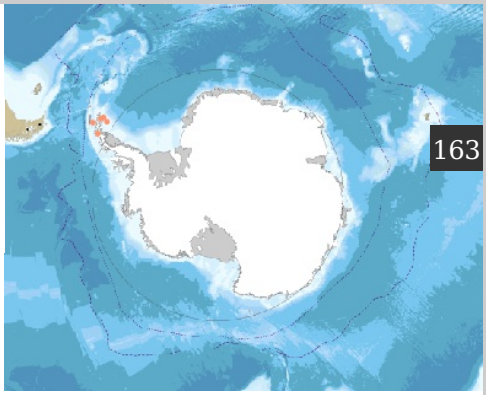
Habitat

fast ice

Scientific name

Perknaster aurorae (Koehler, 1920)

Animalia Echinodermata Asteroidea Valvatida Ganeriidae Perknaster



Description

Large and variable in colour, with red blotches. Reaches up to around 40cm across

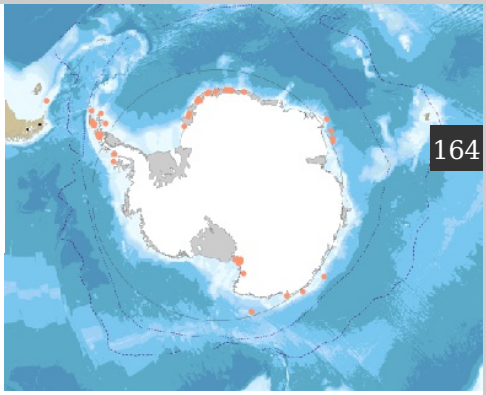
Distribution info

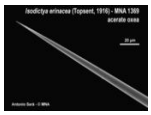
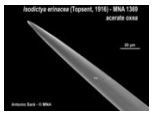
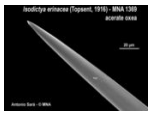
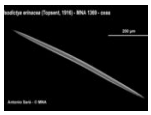
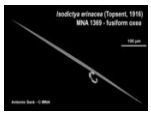
Known from between 18 and 310m in depth, from Sub-Antarctica and South Georgia to the Antarctic Peninsula and Continent.

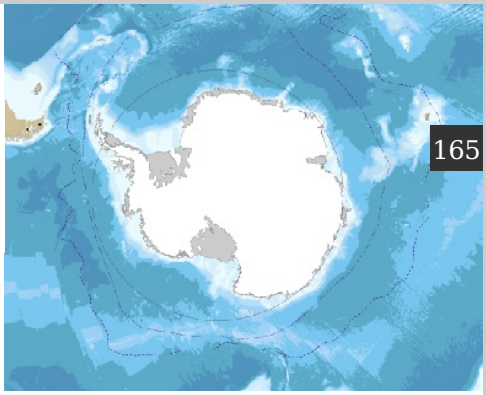
Scientific name

Isodictya erinacea (Topsent, 1916)

Animalia Porifera Demospongiae Poecilosclerida Isodictyidae Isodictya



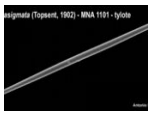
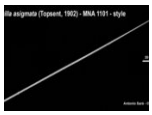
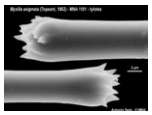






Scientific name

Myxilla (Myxilla) asigmata (Topsent, 1901)

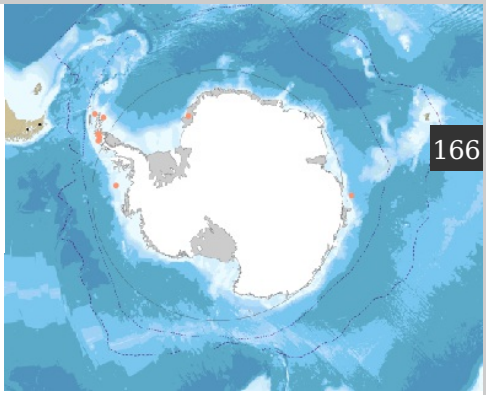
Animalia Porifera Demospongiae Poecilosclerida Myxillidae Myxilla

Scientific name

Podocerus septemcarinatus Schellenberg, 1926

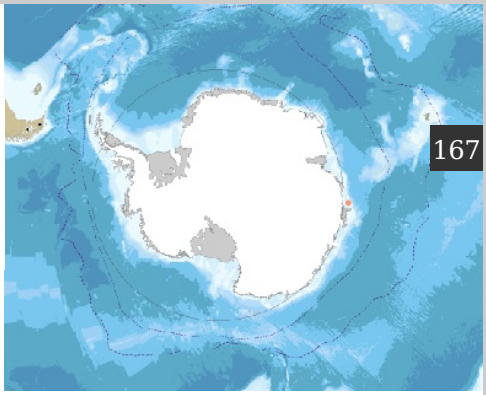
Animalia Arthropoda Malacostraca Amphipoda Podoceridae Podocerus



Scientific name

Acanthonotozomoides oatesi (K.H. Barnard, 1930)

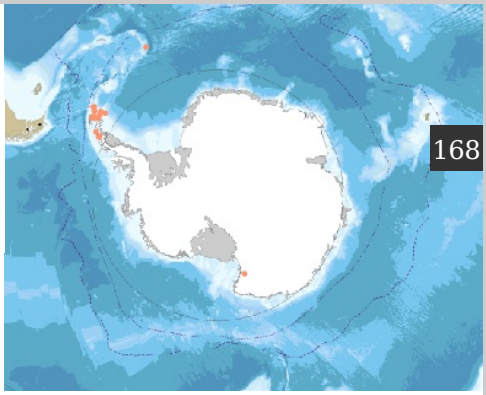
Animalia Arthropoda Malacostraca Amphipoda Acanthonotozomatidae Acanthonotozomoides



Scientific name

Barrukia cristata (Willey, 1902)

Animalia Annelida Polychaeta Phyllodocida Polynoidae Barrukia



Description

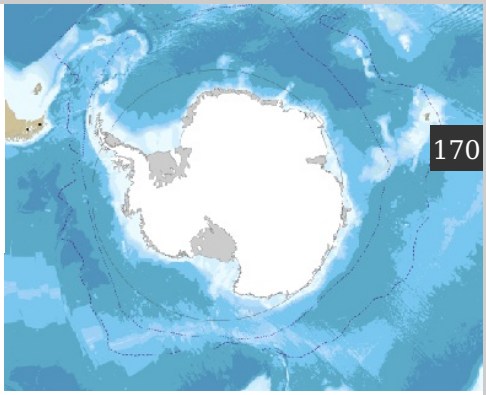
Barrukia cristata has a scale-covered, flattened body, up to 6.5cm long.

Distribution info

5 to 1,120m, found commonly in mud from Sub-Antarctica to the Antarctic Peninsula and Continent.

Ecology

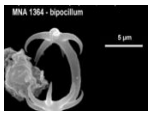
Barrukia cristata is an ambush predator whose diet is reported to include crustaceans. It is known to be eaten by Trematomus fish. Individuals probably live for not much longer than a year and a half, and population studies indicate that three generations are produced per year.

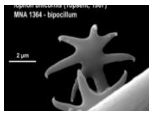


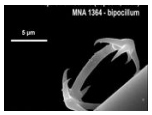
Scientific name

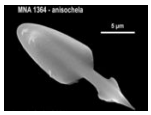
Iophon unicornis Topsent, 1907

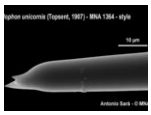
Animalia Porifera Demospongiae Poecilosclerida Acarnidae Iophon

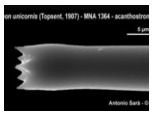


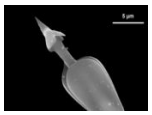


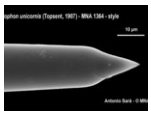


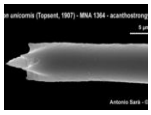


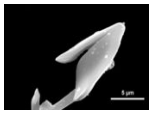








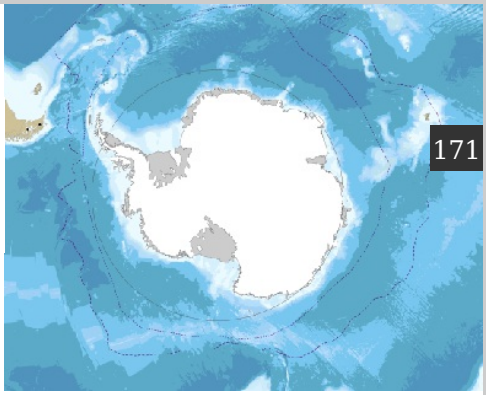




Scientific name

Paralomis formosa Henderson, 1888

Animalia Arthropoda Malacostraca Decapoda Lithodidae Paralomis



Description

Reddish to orange. The shell is pentagonal and covered in small granules and a few spines. The carapace of an adult crab can be 20cm across, with a leg-span of around 50cm, although parasitism in some individuals can prevent moulting, so throughout their lifetime they remain at the size of their last moult and never reach full size.

Distribution info

400 to 1600m, from South Georgia and the Sub-Antarctic to the Antarctic Peninsula.

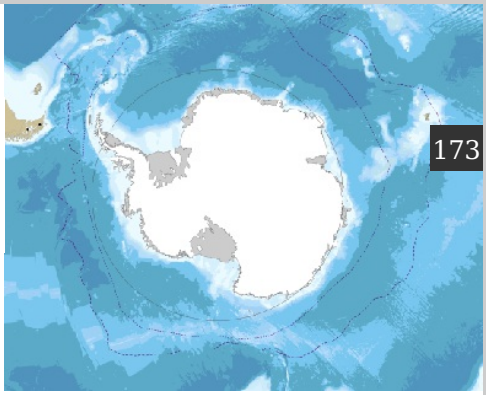
Ecology

This is an edible crab and has been fished. Paralomis formosa has a commensal relationship with a small snailfish, which appears to attach to the crab by means of its sucker disc and remain closely associated with it throughout its lifetime.

Scientific name

Hormathia lacunifera (Stephenson, 1918)

Animalia Cnidaria Anthozoa Actiniaria Hormathiidae Hormathia



Description

White with a dark tough cuticle and 96 tentacles of which the inner tentacles are longer. It grows to 5cm in diameter and around 10cm high

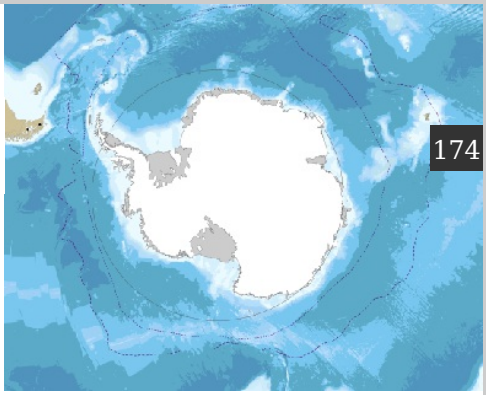
Distribution info

15 to 3,020m, from southern Argentina to Continental Antarctica.

Scientific name

Phalacrocorax atriceps

Animalia Chordata Aves Ciconiiformes Phalacrocoracidae Phalacrocorax



Description

The Blue-eyed Shag, or Cormorant, is found on the western side of the Antarctic Peninsula, the Scotia Arc, South Georgia and the western coast of South America. They are the only member of the Cormorants to venture down into the Antarctic proper, with colonies found as far as 68 degrees south. They are unique among Antarctic and sub-antarctic birds in that they will maintain a nest year-round where the sea is open and they actively avoid pack ice. They were welcomed by the early explorers and sealers because they never ventured far from their nest site out to sea, and thus, were a sure sign of approaching land.

Blue-eyed shags are characterized by a vivid blue eye color and an orange/yellow growth at the base of their beaks that becomes particularly large and bright during the breeding season. They have a white-breast, a black back and largely white cheeks and neck. The bill is dark brown and the feet pink.

Blue-eyed shags feed mainly on fish and invertebrates, often forming dense "rafts" at sea of hundreds of birds that continuously dive down onto the shoals below looking for fish. By fishing in such large groups they help each other by panicking the fish into having nowhere to go except into the beak of the next bird. They are excellent divers with a recorded maximum dive of 400 feet. Once underwater they are able use their powerful webbed feet to propel themselves rapidly in search of food.

The nests of these gregarious birds are built on cliff tops close to the ocean. The colonies can become quite raucous and lively affairs, especially during the breeding season. Courtship activities begin in late August to early October. Up to three eggs are laid in October through to early January and these hatch in November to February. Unlike other Antarctic birds, Shag chicks are born "naked", meaning without any down feathers. This makes them susceptible to extreme weather and especially dependent on their parents when very young. Fledging occurs in January to March, and the adults leave the colonies in April.

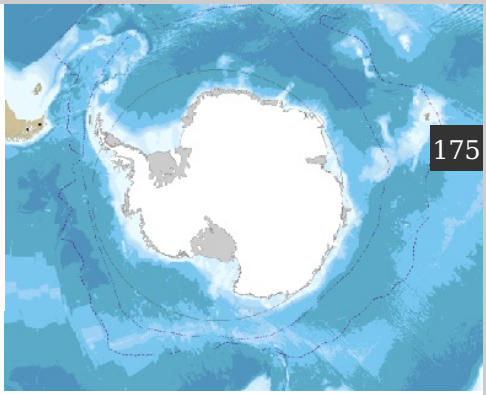
The main predators of Blue-eyed shags are the sheathbill, which steals eggs from the nest, and leopard seals, which attack the birds at sea.

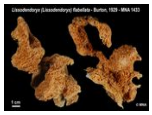
Cormorants do not seem to be under any current threat, however, but some populations are so small (a few hundred pairs) that their status needs monitoring.

Scientific name

Lissodendoryx (Lissodendoryx) flabellata Burton, 1929

Animalia Porifera Demospongiae Poecilosclerida Coelosphaeridae Lissodendoryx

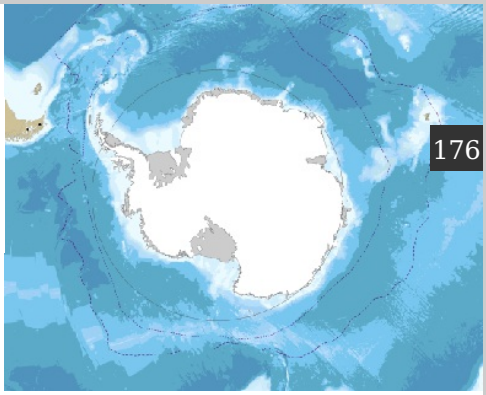




Scientific name

Haliclona (Gellius) tenella (Topsent, 1916)

Animalia Porifera Demospongiae Haplosclerida Chalinidae Haliclona



Description

White or yellowish with an irregular shape and rough surface

Distribution info

50 to 226m from southern Argentina to Continental Antarctica

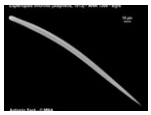
Ecology

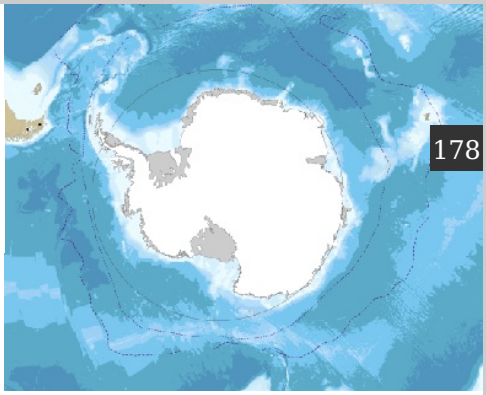
Haliclona tenella is a suspension feeder, and preyed on by the seastars Odontaster meridionalis and Acodontaster hodgsoni and by the dorid nudibranch Austrodoris kerguelenensis

Scientific name

Esperiopsis informis Stephens, 1915

Animalia Porifera Demospongiae Poecilosclerida Esperiopsidae Esperiopsis





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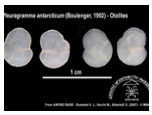
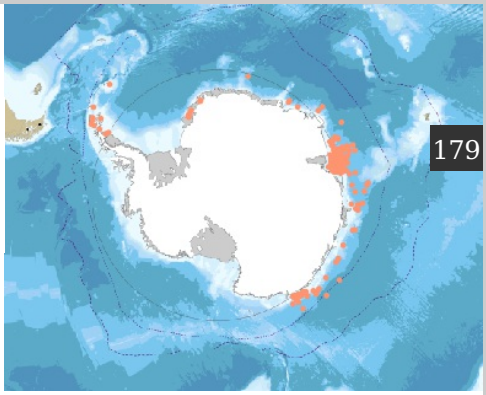
Scientific name

Pleuragramma antarcticum Boulenger, 1902

Animalia Chordata Actinopterygii Perciformes Nototheniidae Pleuragramma





Distribution info

Pleuragramma antarcticum has a largely circumantarctic distribution: Weddell Sea, Bellingshausen, Ross Sea, Davis Sea, Oates, Adelie, Wilhelm, Prydz Bay, Antarctic Peninsula, South Shetland and South Orkney Islands, South Georgia Island.

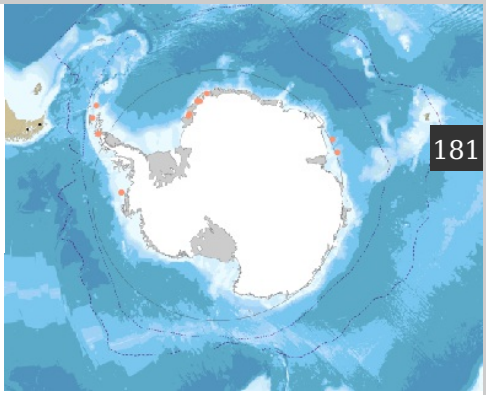
Ecology

This is a pelagic fish found in temperatures ranging from 2.1 to -1.4 Â°C. It inhabits both open waters and areas of pack ice in mid-waters. P. antarcticum is described as the most dominant pelagic fish in Antarctica, accounting for over 90% of the fish community in number and biomass (DeWitt 1970, Hubold & Tomo 1989).
The most commonly reported food items of P. antarcticum include krill, copepods, amphipods, euphausiids, molluscs, polychaetes, chaetognaths and ostracods. They may also switch to cannibalism in the absence of an adequate food supply.
P. antarcticum constitutes the diet of the large Antarctic predators such as whales (Andriashev 1965; Lauriano et al. 2007), elephant seals (Daneri & Carlini 2002), fur seals (Casaux et al. 2003) and Weddell seals (Burns et al. 1998, Fuiman et al. 2002); in winter, it is even consumed by crabeater and leopard seals (Lowry et al. 1988). It is an important component of the diets of gentoo, AdÃ©lie and emperor penguins (Ainley et al. 1998, Cherel & Kooyman 1998, Polito et al. 2002), and of birds such as skuas (Mund & Miller 1995), cormorants (Casaux et al. 1998) and cape pigeons (Creet et al. 1994). It is also a regularly occurring item in gut contents of other fish (Eastman 1985, 1999).
The life cycle of P. antarcticum begins in winter (August), when adults migrate inshore to spawn off the great ice shelves of Antarctica (Kellermann 1986). Compared to other nototheniids of the high Antarctic zone, both absolute and relative fecundities of P. antarcticum are unusually high, attaining about 18,000 eggs/female and 160 eggs/g, respectively (Hubold 1991, Kock & Kellermann 1991). Unlike other species, most of which spawn large eggs on the sea bottom, P. antarcticum spawn pelagic eggs of small size (about 2 mm) floating more or less freely in the platelet ice under the sea-ice cover (Vacchi et al. 2004). As a result, egg predation by other fish species, commonly reported in benthic feeders (La Mesa et al. 1997, 2004), is probably prevented or largely reduced by the inaccessibility of this unusual brooding site.

Scientific name

Syrrhoe nodulosa K.H. Barnard, 1932

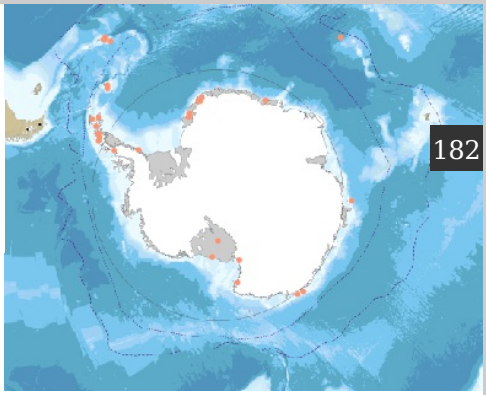
Animalia Arthropoda Malacostraca Amphipoda Synopiidae Syrrhoe

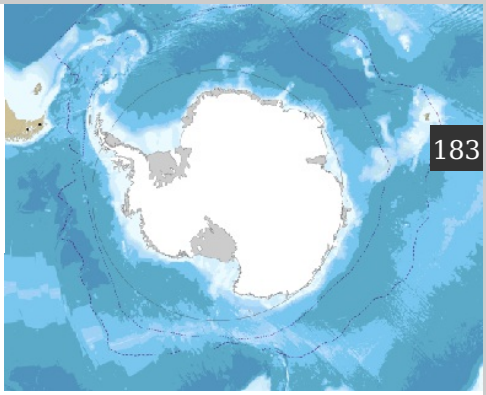


Scientific name

Oediceroides calmani Walke, 1906

Animalia Arthropoda Malacostraca Amphipoda Oedicerotidae Oediceroides

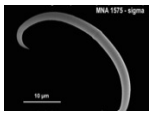


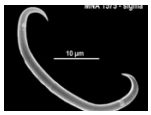
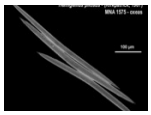
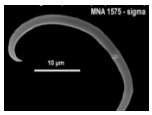


Scientific name

Hemigellius pilosus (Kirkpatrick, 1907)

Animalia Porifera Demospongiae Haplosclerida Niphatidae Hemigellius

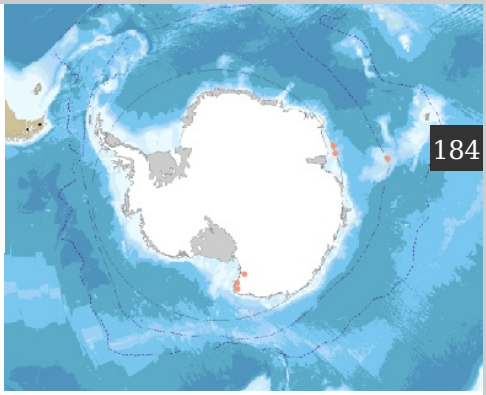



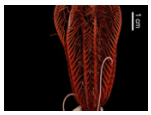
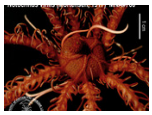
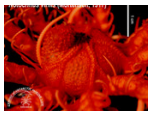




Scientific name

Notocrinus virilis Mortensen, 1917

Animalia Echinodermata Crinoidea Comatulida Notocrinidae Notocrinus

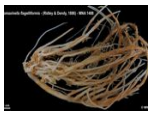


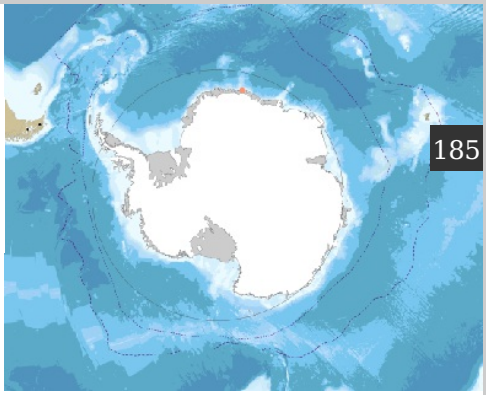




Scientific name

Homaxinella flagelliformis (Ridley & Dendy, 1886)

Animalia Porifera Demospongiae Hadromerida Suberitidae Homaxinella

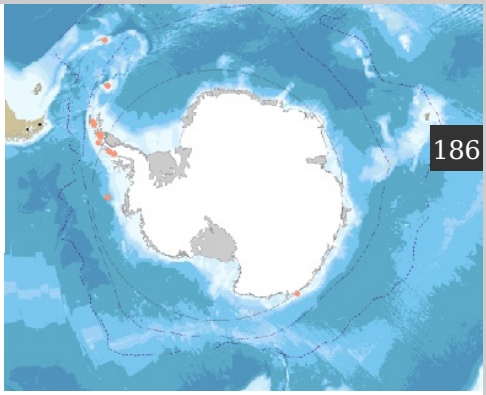




Scientific name

Escharoides tridens (Calvet, 1909)

Animalia Bryozoa Gymnolaemata Cheilostomatida Exochellidae Escharoides



Description

Pink to orange in colour but may be translucent when young. This species is striking in colour but also has three distinctive, forward pointing, prongs (hence its name). Round the margins of each zooid are dimples. The only other Antarctic species (apart from at South Georgia), E. praestita, is not very similar.

Distribution info

5m to deep water, common in shallows, particularly on the undersurfaces of boulders. The species occurs throughout west Antarctica, but is unknown from East Antarctica except round the Ross Sea

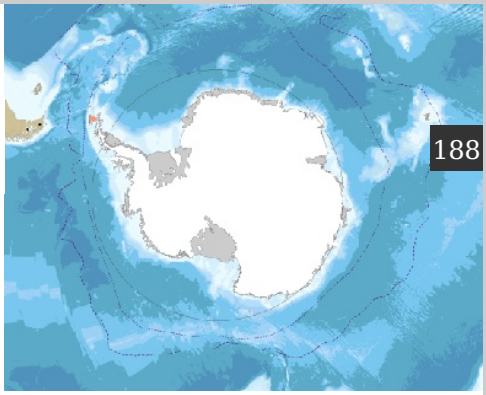
Ecology

The species is common in the shallows, particularly in recently disturbed areas. It is a mid-ranked space competitor and rarely occurs as an epibiont on other animal shells. It is a suspension feeder, eating phytoplankton during spring and summer months. It is probably grazed by limpets and echinoids.

Scientific name

Pyura obesa Hartmeyer, 1919

Animalia Chordata Ascidiacea Stolidobranchia Pyuridae Pyura



Description

Yellow or orange and flask-shaped. This large ascidian grows up to 22cm long.

Distribution info

20 to 220m, found on sediment from Sub-Antarctica to the Antarctic Peninsula and Continent.

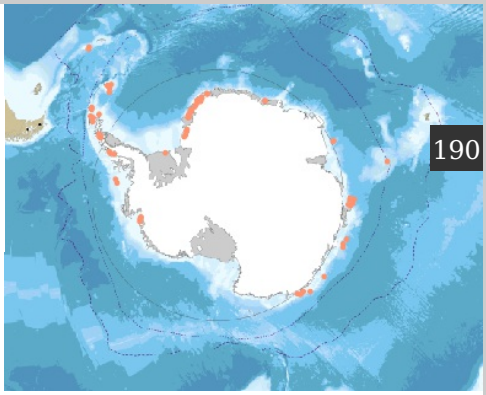
Ecology

Pyura obesa is a suspension feeder and larger individuals have been found with varied organisms such as algae, bryozoans and other ascidians growing on them.

Scientific name

Nematoflustra flagellata (Waters, 1904)

Animalia Bryozoa Gymnolaemata Cheilostomatida Flustridae Nematoflustra



Description

Orange/brown in colour. This species forms long (up to 20cm) and branching sheet-like fronds. These are curled and have very distinctive long â€˜hairsâ€™ called vibracula over its entire inside surface. These move up and down to clear debris and possibly small predators away from its feeding tentacles. Deep-water specimens (100m+) are stringier and less branched.

Distribution info

35m to deep water, on hard and soft substrates inside the Polar Frontal zone (so not Subantarctic islands) from South Georgia through to Antarctic continental waters.

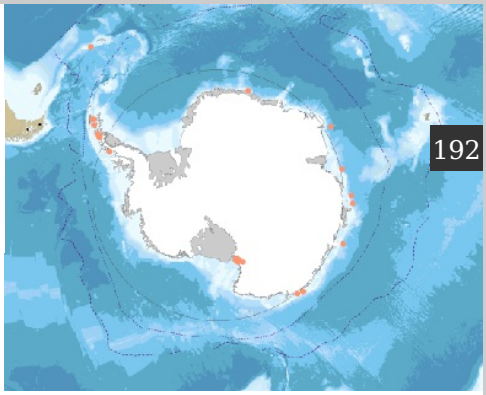
Ecology

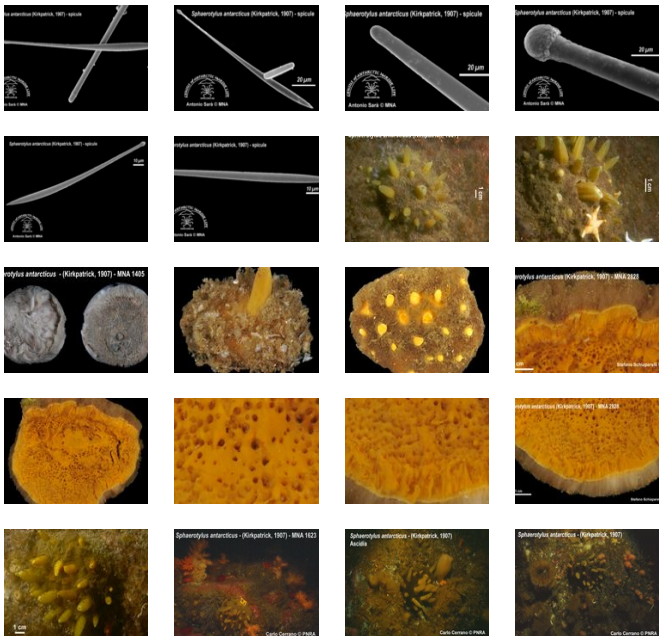
N. flagellata is an extremely distinctive endemic Antarctic species. It (suspension) feeds most of the year round, pausing for just three months mid-winter, and may live decades. The banding seen sometimes are areas of reproductive activity, not growth lines. The non-active surface is frequently covered with encrusting animals such as other bryozoans or polychaete worms.
The main observed predators of N. flagellata are nudibranch sea slugs, some small grazing gastropods and pycnogonans.

Scientific name

Sphaerotylus antarcticus Kirkpatrick, 1907

Animalia Porifera Demospongiae Hadromerida Polymastiidae Sphaerotylus





Distribution info

Circumantarctic distribution (Vacelet & Arnaud, 1972), Chile (Desqueyroux-Faundez, 1989).

Habitat

S. antarcticus inhabit on hard bottoms as rocks and stones, but it was collected also in soft-bottoms such as mud (Burton 1932) at 17-450 m depth (Hooper & Wiedenmayer, 1994).

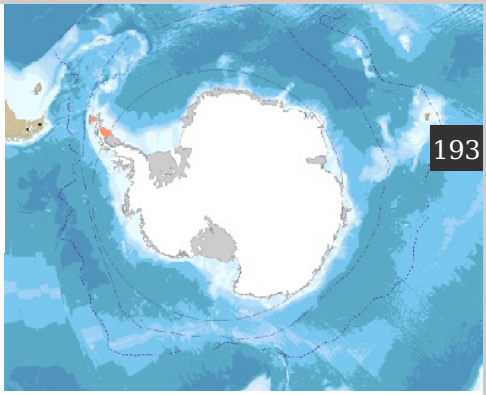
Description

Original description by Kirkpatrick (1907):
Sponge dome-shaped or spheroidal, attached or free. Surface beset with a dense short pile of cortical microtyles; with several usually elongated papillae with or without a large terminal orifice. Dermal pores distributed over the cortex, each pore opening into a single tubular canal in the cortex; the mouth or pore of the pore-canal is guarded with a ring of radiating cortical tyles. Flagellated chambers diplodal.
Skeleton formed mainly of radiating fibres composed of styles, with diverging brushes of spherostyles near the surface. Cortex with a surface-layer of densely packed tufts of small vertical tyles, and a subcortical layer of tangential styles and tyles.
Spicules.- Spherostyles 8 mm in length by 30 Î¼m in diameter in the middle, and 14 Î¼m in the region below the distal knob; distal knob 28 Î¼m in diameter, hemispherical, with granular surface and with a few square teeth or serrations on the edge.
Styles straight, fusiform, blunt-pointed, 2.8 mm in length, 41 Î¼m in diameter in the middle, 23 Î¼m in diameter at the rounded end.
Cortical tyles curved, 146 Î¼m long, head 3.25 Î¼m in diameter; neck slender, 2.75 Î¼m thick, with broad oar-blade-like shaft, but circular in section, 7 Î¼m thick.
Styles of lower cortical tangential layer, also in choanosome, 900x20 Î¼m. Tyles of the same layer nearly straight, 270 Î¼m long, with head 7 Î¼m in diameter and relatively thick neck 6.8 Î¼m in diameter.
Slender, curved tyles, 460x10 Î¼m scattered in choanosome.
Young specimens are oval, with one long closed papilla; the bundles of divergent exotyles are more or less separate and distinct, and the distal knobs retained and not broken off.

Scientific name

Molgula pedunculata Herdman, 1881

Animalia Chordata Ascidiacea Stolidobranchia Molgulidae Molgula



Description

As its name suggests Molgula pedunculata usually has a long stalk or peduncle, which may have fine hairs on it. It is large and fairly translucent and is typically 10-20cm.

Distribution info

10 to 437m [shallow depths all from Dave-check ok#], but generally below 100m, from Sub-Antarctica to the Antarctic Peninsula and Continent. Molgula pedunculata has a holdfast which allows it to attach to both hard and soft substrates [??#], and it often grows in patches or dense clumps.

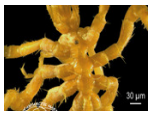
Ecology

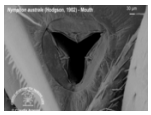
Antarctic ascidians grow relatively fast, appearing to be an exception to the Antarctic tendency towards large, slow-growing invertebrates. Molgula pedunculata has been shown to grow fast at first (up to 16.8cm in two years), but grows slower as it gets older. It is a suspension feeder, feeding mostly on resuspended benthic material, and it spawns between August and November.

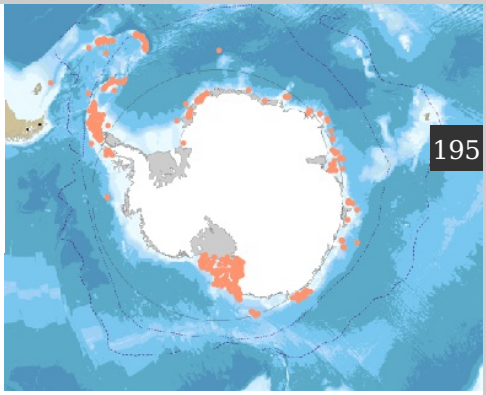
Scientific name

Nymphon australe Hodgson, 1902

Animalia Arthropoda Pycnogonida Pantopoda Nymphonidae Nymphon



Distribution info

N. australe has a circumpolar distribution, but it is found also in more temperate zones as New Zealand, Falkland Islands, off the coast of Chile and Argentina, and Southern Indian Ocean (Child, 1995).

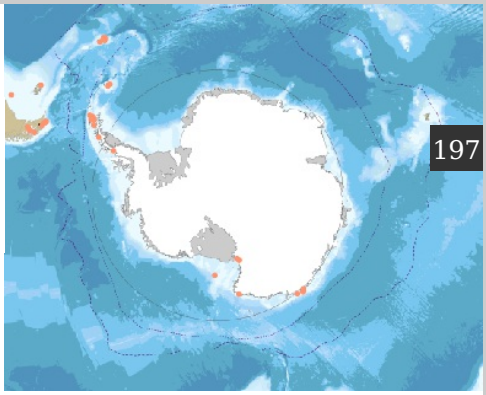
Ecology

Nymphon australe is the most frequently collected of all pycnogonid species in Antarctic area (Munilla & Soler-Membrives, 2009) and in the highest numbers (Arango et al, 2010). It is considered circumpolar and eurybathic, found in most Antarctic and subantarctic benthic collections. As most of pycnogonids Nymphon australe lacks a planktonic stage (Arnaud & Bamber, 1987).
Thus, it is of interest to understand how these marine organisms with an apparent limited dispersal capacity have achieved such wide geographical and bathymetric distributions. N. australe is classified within a group of Southern Ocean species of Nymphon sharing few morphological characters such as inflated ovigers, a robust body and setae present on trunk and legs. This group of species or 'australe-complex', is to be tested in a phylogenetic context using both morphology and molecular data to understand the diversification of the group, their relationships to other Antarctic (~60 spp.) species and also the evolutionary history of the cosmopolitan Nymphon (~270 spp.) (Arango et al., 2010).

Scientific name

Heterophoxus videns K.H. Barnard, 1930

Animalia Arthropoda Malacostraca Amphipoda Phoxocephalidae Heterophoxus



Description

Reaches up to 1cm long

Distribution info

2 to 457m, from southern Argentina to Continental Antarctica. Heterophoxus videns lives buried in soft sediments. It often occurs in dense groups.

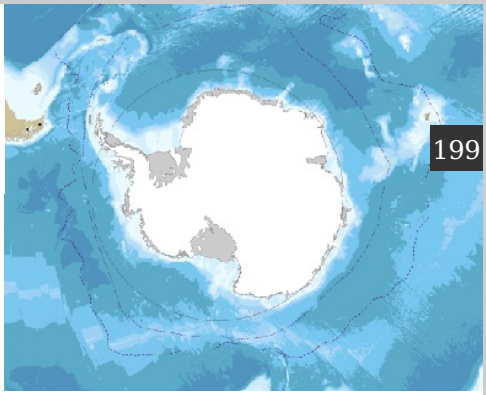
Ecology

Heterophoxus videns is a voracious predator and eats animals at the sediment surface such as settling larvae, small or young worms, other crustaceans, sponges and diatoms. It and other predatory under-surface crustaceans probably play a major role in the composition and size of polychaete populations. Its predators include Trematomus fish

Scientific name

Lepas australis Darwin, 1851

Animalia Arthropoda Maxillopoda Lepadiformes Lepadidae Lepas



Description

small stalked goosebarnacle. Goose barnacles are difficult for the non-specialist to separate.

Distribution info

surface waters, circumsubantarctic and widely distributed in southern temperate waters.

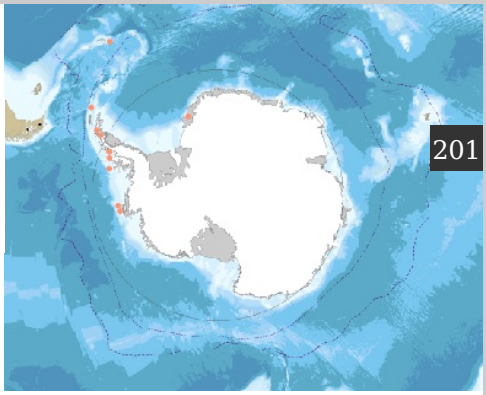
Ecology

L. australis is the most common goosebarnacle in the subantarctic. This species is most frequently encountered attached to flotsam such as logs, pumice, plastic buoys, or other artefacts. The species also attaches to fur seals but is brushed off within a few days of them hauling out onto beaches (easiest seen in early November to late December). L. australis, as all barnacles, is a suspension feeder eating phytoplankton. The main predators of L. australis are unknown, but probably birds.

Scientific name

Micropora notialis Hayward & Ryland, 1993

Animalia Bryozoa Gymnolaemata Cheilostomatida Microporidae Micropora



Description

Grey/ brown to white in colour. The zooids of this species are typically diamond in shape (hence its name), though the colonies, like all encrusters, have no definite shape. The apertures (from which the tentacles emerge) of each zooid have a shiny yellow/orange appearance.

Distribution info

5m to deep water, common in shallows, particularly on boulders undersurfaces. The species occurs in Patagonia and throughout west Antarctica, but is unknown from East Antarctica. One other Antarctic species, M. brevissima, overlaps in distribution but is also found in the Ross Sea. There are a number of Subantarctic species.

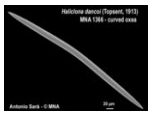
Ecology

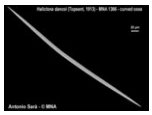
The species is a major space occupier in the shallows, particularly on boulder undersurfaces. It is a mid-ranked space competitor and rarely occurs as an epibiont on animals shells. A large (>1 yr old) colony was found on a piece of drift plastic at 68Â°S. It is a suspension feeder, eating phytoplankton during spring and summer months. It is probably grazed by limpets and echinoids.

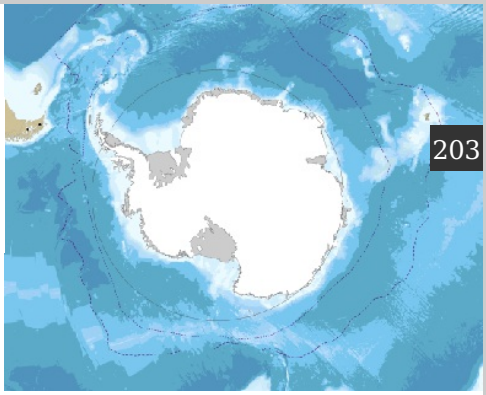
Scientific name

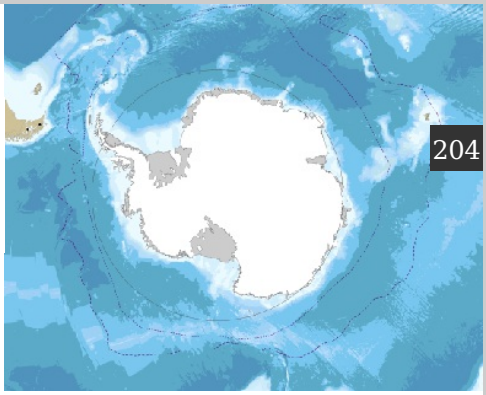
Haliclona dancoi (Topsent, 1913)

Animalia Porifera Demospongiae Haplosclerida Chalinidae Haliclona





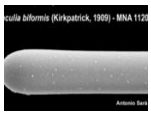
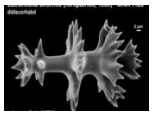
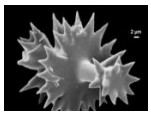




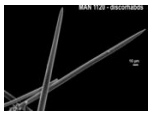
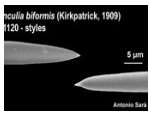
Scientific name

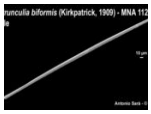
Latrunculia biformis Kirkpatrick, 1907

Animalia Porifera Demospongiae Poecilosclerida Latrunculiidae Latrunculia



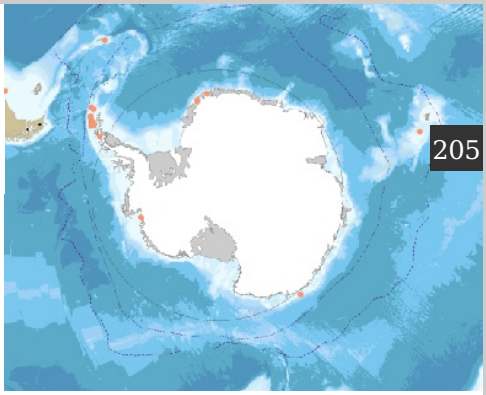





Scientific name

Carbasea ovoidea Busk, 1852

Animalia Bryozoa Gymnolaemata Cheilostomatida Flustridae Carbasea



Description

Mainly transparent but the thin skeleton is white in colour. This species forms thin sheet-like fronds up to 6cm high (almost like onion skin). Curls up if dried out. Although the genus is speciose, only one other species (C. curva) is common in Antarctic waters, and this is dark brown and barely transparent.

Distribution info

5m to deep water, on hard substrates from Magellanic to some Subantarctic islands (Prince Edward, Kerguelen, Heard) to the Scotia Arc, Antarctic Peninsula and Ross Sea.

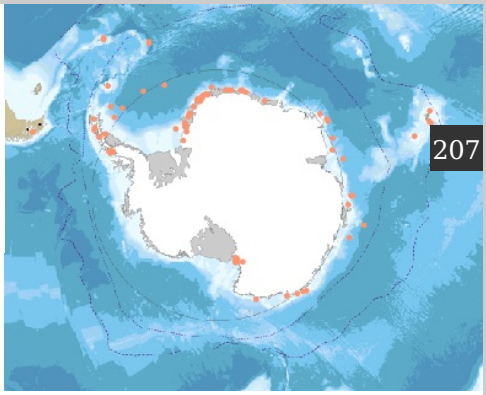
Ecology

This species is the shallowest occurring frond-like bryozoan. Unusually it is an annual species, growing new fronds each year from a base. These suspension feeders eat phytoplankton during the summer periods. Disjointed growth of zooids can be seen where it repairs damage to fronds. It is very lightly calcified and one of the faster growing bryozoans. Its main predators are probably nudibranchs, pycnogonans and seastars, though none have ever been seen to eat it.

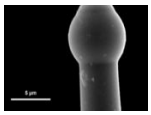
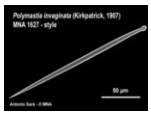
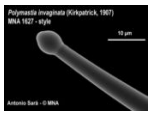
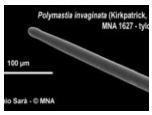
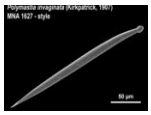
Scientific name

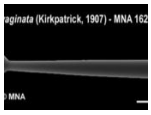
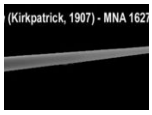
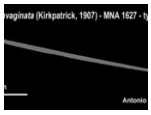
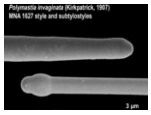
Polymastia invaginata Kirkpatrick, 1907

Animalia Porifera Demospongiae Hadromerida Polymastiidae Polymastia






Distribution info

18 to 1,266m from Sub-Antarctica and South Georgia to the Antarctic Peninsula and Continent. Polymastia invaginata is commonly found on cliffs. It grows on hard surfaces, but can also grow in muddy areas by settling on small stones and then extending out onto the mud. It appears to be able to remove sediment build-up, possibly by contracting and relaxing.

Description

Greenish grey to yellow. Hemispherical and bristly with one or two large conical papillae which contract when disturbed. The sponge reaches a diameter of up to 11cm.

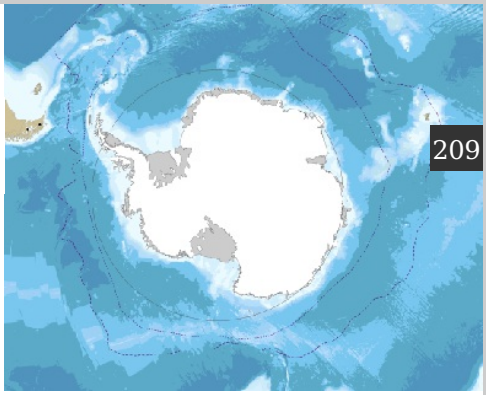
Ecology

Suspension feeder, preyed upon by seastars such as Perknaster fuscus (when juvenile) and Odontaster meridionalis, and by the dorid nudibranch Austrodoris kerguelenensis. Its larvae have been observed in aquaria to disperse by crawling

Scientific name

Pygoscelis antarctica

Animalia Chordata Aves Ciconiiformes Spheniscidae Pygoscelis



Description

The Chinstrap penguin is the second most abundant Antarctic/subantarctic penguin, after the Macaroni. They are mainly concentrated in vast colonies along the coast of South Orkneys, South Shetlands and South Sandwich Islands. There are also small breeding colonies on the Balleny Islands, south of New Zealand.Although population changes have been detected among colonies on the Antarctic Peninsula, the overall Chinstraps population seems stable.

Individuals of this species are recognized by the narrow band of black feathers which extends from ear to ear, just below the chin and the cheeks, hence the name. This distinctive, thin black line distinguishes Chinstraps from Adelies and Gentoos, the other two members of its genus. Chinstraps are also smaller than Gentoos

The diet of the Chinstrap consists of: small shoaling animals, krill, small fish and other roaming marine crustaceans. They are considered near-shore feeders foraging among the pack ice, although vagrants may occasionally be seen in the open sea. They feed by pursuit-diving for prey close to their breeding colonies. Diving effort is usually concentrated near midnight and noon and dives typically last less than a minute and are seldom more than 200 feet deep. Like most penguins, Chinstraps using their flippers to 'fly' at speeds of up to 20 miles per hour. On land, Chinstraps often 'toboggan' on their stomachs, propelling themselves by their feet and flippers. They climb out of the water and up steep slopes using all four limbs and they are able to jump large distances to reach footholds.

Chinstrap penguins lay two eggs in November or December and the chicks fledge at about seven to eight weeks in late February and early March. Unlike other penguins species where the stronger chick is fed preferentially, Chinstrap parents treat both chicks equally. Scientists believe that extensive sea-ice persisting close to shore can restrict access to the sea for foraging adults and therefore impact chick survival.

Although Chinstrap penguins are not considered to be migratory, they do leave their colonies and move north of the pack ice in March through to early May for the winter.

The principal predator of adult Chinstraps is the Leopard seal, while the main predators of eggs and chicks are sheathbills and the Brown skua.

Distribution info

Antarctic peninsula and southern islands

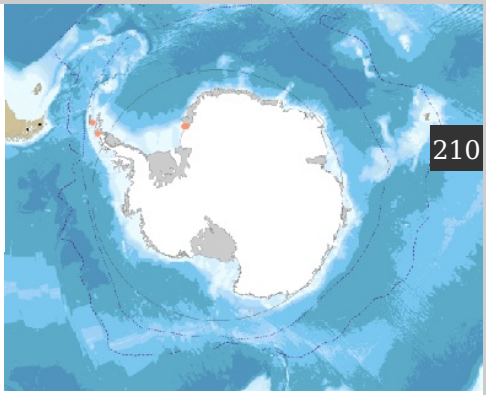
Size

27 inches tall

Scientific name

Cryptasterias turqueti (Koehler, 1906)

Animalia Echinodermata Asteroidea Forcipulatida Asteriidae Cryptasterias



Description

Pale in colour with 5 relatively flexible arms.

Distribution info

Found as shallow as the intertidal zone, but its full depth range is not known

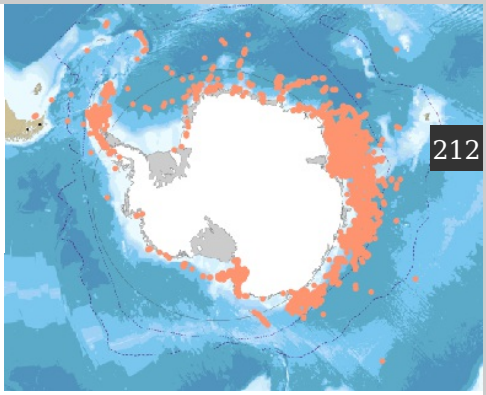
Ecology

Little is known about this seastar. Its diet has been noted as including the bivalve Laternula elliptica, which lives burrowed into soft sediments.
Other name: Diplasterias turqueti

Scientific name

Pygoscelis adeliae (Hombron & Jacquinot, 1841)

Animalia Chordata Aves Ciconiiformes Spheniscidae Pygoscelis



Description

One of the most common and well-known of all Antarctic penguin species, Adelie penguins can be found forming colonies on islands, beaches and headlands all around the Antarctic coast. The sight of thousands of them waddling and sliding to the water's edge and then, at the appropriate moment, diving headlong into the frigid Antarctic waters, has thrilled Antarctic visitors for generations. Early explorers made use of the ubiquitous Adelie not only for endless entertainment but also as a source of eggs and tough, but tasty meat. Scientists today use the Adelie as an indicator species to monitor the abundance of krill, so important to the web of Antarctic life.

The Adelie penguin is the stereotypical penguin. With its white 'tuxedo shirt' front, and the white ring around its eyes, the bird has a handsome, yet comical appearance. Its beak is reddish with a black tip.

Adelies vacate their winter quarters on the comparative warm Antarctic ice pack and arrive at the rookeries during September and October, often scampering several miles over the sea ice to reach their ancestral coastal homes. They typically establish dense colonies on the ice-free slopes of rocky coasts, headlands and islands. Competition for nesting sites can be fierce and the older more dominant birds tend to stake nests in the middle of the colony where they are better protected from marauding skuas.

A mating pair of Adelies will build a rocky nest of small stones carried in the birds' beaks and dropped into place. Two greenish-white eggs are usually laid in early November. Males and females take turns incubating the eggs, however, the female returns to the sea first, often leaving the male to stand alone for up to ten days while she feeds.

Hatching occurs after about 35 days. The chicks are brooded closely by their parents for the first two to three weeks. While the two chicks hatch almost simultaneously, inevitably one chick is stronger and is better able to win food, which is regurgitated from the crop of whichever parent is present at the time. Growing rapidly, the chicks soon develop a thick woolly gray down and quickly become almost as large as their parents. During the third or fourth week they huddle with other chicks in nursery groups called 'crÃ¨ches' for both protection and warmth. This leaves the parents free to go to sea on feeding forays in order to satisfy their chicks' increasing appetites. Often, a parade of adults can regularly be seen moving between the colony and the sea on such feeding trips. By late March most of the chicks can swim and the Adelies then depart for the pack ice and the sea.

The Adelie's main oceanic predators are leopard seals which often lie in wait beneath the ledges to snare the first penguin into the water.

Distribution info

Antarctic continent peninsula, and islands.

Size

About 30 inches tall

Habitat

n winter, Adelies stay at sea, resting on pack ice and icebergs in groups.

Depth of the distribution

Adelie penguins can dive up to 500 feet for prey

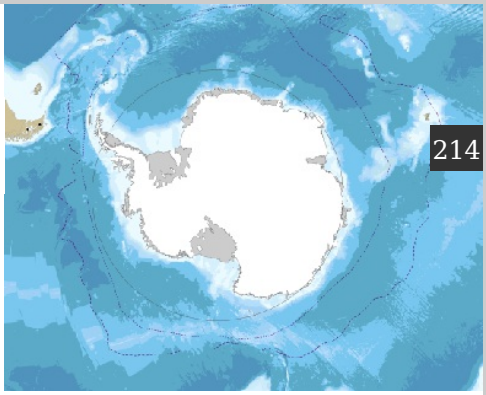
Ecology

There is fierce competition among penguins for nesting sites, especially on the higher well-drained ground -- stealing pebbles from neighboring birds' nests is a favorite pastime.

Scientific name

Orcinus orca

Animalia Chordata Mammalia Cetacea Delphinidae Orcinus



Description

Orca or Killer whales are the largest members of the dolphin family. Found in all waters, these splendid, toothed whales are sometimes called the 'wolves of the sea' because of their closely-related pack-like behaviors. Gracing the southern seas in abundance, Orcas tend to travel in small close-knit, family pods but can be found in groups of up to 50 individuals. Orcas have not been caught commercially since the early 1980's as a result of protective measures imposed by the International Whaling Commission (IWC). However, Orcas are still captured in small numbers for display at zoos and marine parks. This is an emotional and controversial issue to be sure, but not one of conservation significance as Orca populations are currently thought to be stable.

Probably the most striking feature of Orca whales is their unique coloration pattern. A dazzling contrast of jet black above and bright white markings beneath help make the Orcas both visually appealing and easily identifiable. Add to that their sleek, streamlined shape and imposing dorsal fins (especially in the adult male) and the result is a truly magnificent animal of the sea.

Orca whales are excellent swimmers and can perform impressive acrobatics in the water. They can often be observed breaching, a behavior in which the whale speeds to the surface and leaps completely out of the water, falling back with a spectacular splash. Or they may be seen 'spyhopping'--poking their heads straight out of the water to get a better look at their surroundings. 'Tail slapping' is another common activity possibly meant as a kind of warning to other members in pod.

Orcas are very efficient and sophisticated predators who often hunt in groups, attacking prey much as wolves attack larger caribou or moose, then sharing the spoils. They eat fish, squid, sharks, birds (including penguins), seals, sea turtles, octopi, and other whales. An Orca will tip up small ice floes to dislodge resting seals while other Orcas wait beneath the surface for the kill. They have even been observed attacking young, but still huge, Blue whales. Aside from human beings, Orcas have no natural enemies. They can dive to depths of up to 100 feet in pursuit of prey but prefer to hunt at or near the surface of the water.

Orcas are very social animals. The bonds between pod members are strong and last for life. Orcas share the responsibility of protecting young, and caring for the sick or injured.

Orca breeding occurs mostly in the winter to early spring. The gestation period is about 16-17 months. Newborn Orca calves instinctively swim to the surface within ten seconds for their first breath, helped along by mother's flippers. Calves are about seven feet long and weigh up to 400 pounds at birth. The mother and calf may stay together for a year or longer. Female orcas reach maturity at 6-10 years old, and males at 12-16 years old.

Size

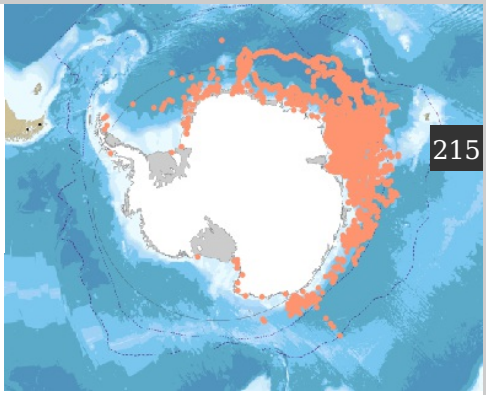
25 to 30 feet long

Scientific name

Aptenodytes forsteri Gray, 1844

Animalia Chordata Aves Sphenisciformes Spheniscidae Aptenodytes





Description

Emperor penguins are the largest and heaviest member of the penguin family. Males and females look alike but their songs differ. Measured from the tip of their beaks to the tip of their tails they are approximately 1 m long but when they are upright they stand about 70 cm tall. Their necks comprising 13 vertebrae are flexible and highly extendable. When an adult pulls in its head, the cervical vertebrae form a strong S-bend and shorten the appearance of the penguin.
The bodies of emperor penguins are cigar shaped and streamlined. The flippers are about 35 cm long and are highly specialised for fast underwater movement of around 14 km/h. Head, chin, throat and neck are black and contrast strongly with the auricular (ear) patches where the colours changes from a deep yellow on the top to a pale yellow to nearly white at the bottom. The upper part of the chest is soft yellow but most of the chest and underside of the flippers are a soft white which is demarcated from the dark grey-blue back by a black stripe. The beak is narrow and long with a curved tip. The mandibles are black and the mandibular plates on the lower mandible range in colour from pink to lilac. The feet and legs are black and the iris is dark brown.
The body mass is highly variable throughout the year. When arriving at the colony in late autumn, the penguins tend to weigh 30-40 kg, sometimes more. During courtship, mating and laying the penguins usually rely on their accumulated body reserves as the ice edge is often too distant to go on regular foraging trips. Most females weigh well less than 30 kg when they depart the colony after laying. Upon their return some two months later they are well fed while the males who have fasted for nearly four months have lost a third to half their body mass and weigh less than 25 kg. At the end of the breeding season, all adults need to fatten again in preparation for the annual moult.
It takes about 5 years for an emperor penguin to acquire its full mature plumage. Juveniles lack the yellow feathers on the chest and the ear patches. Their throats and chins are a soft grey and their beaks are entirely black.
Chicks are covered in soft grey down but their heads are black with a white mask around the eyes.

Distribution info

Emperor penguin colonies occur right around the Antarctic continent. Most but not all colonies are situated on the fast ice (sea ice that is attached to the continent). About 40 breeding colonies are known to exist. Some of them still need to be confirmed.
The at-sea distribution varies throughout the year. During the breeding season, the penguins need to stay relatively close to the colony (~ 100-200 km) to provision their chicks regularly. However, post breeding, the adults travel much larger distances and move farther north than during chick rearing when they prepare themselves for the annual moult. Fledglings that depart the colonies for the first time travel even farther and can reach latitudes near 54Â°S.

Size

Because of the remoteness of many of the emperor penguin colonies it is very difficult to establish a global population size. Many colonies have not been visited for several decades and recently found ones still need to be confirmed. There are just over 40 colonies that vary in size from a few hundred to a several ten thousand pairs. The largest known colonies (~16,000+ pairs) are located in the Weddell and Ross seas. Cape Washington, Ross Sea, is the largest known breeding colony where on average some 20,000 chicks hatch.
In 2009, British scientists used satellite images to look for emperor penguin colonies around Antarctica. This technology may proof useful as a tool to monitor remote colonies in the future and enable scientists to obtain much better information on the status of the global emperor penguin population.

Habitat

Ice breeding emperor penguins can establish breeding colonies only in areas where the fast ice is stable, provides a reliable platform and persists well into summer. That is why breeding colonies of emperor penguins are usually found far south and far away from the edge of the fast ice, which is prone to destruction by wind and waves during storms. Note, however, that three colonies are known to be located on solid land where flat ground is available.
Since glaciers or ice tongues are often near the breeding areas, the colony locations occasionally must shift when ice bergs calve off the glaciers. Even during the breeding season, the penguins are highly mobile and can shift their location up to several kilometres, particularly in the largest of the ice-breeding colonies.

Depth of the distribution

Emperor penguin are exquisite divers and champions among the seabirds. Most of their foraging dives range from 150 to 250 metres but they are capable of much deeper dives. One of the deepest dives recorded for an adult emperor penguin went to 564 metres. The penguin was on his first foraging trip after the long incubation period. Incredibly, not only did he dive to this enormous depth, he repeatedly went to more than 500 metres on the same day! These very deep dives lasted up to 9 minutes.
Most of the time emperor penguins dive for 3 to 6 minutes. They do this because within this time frame they are able to utilise the oxygen that is stored in their blood, lungs, and importantly, in their muscles. As long as they can use oxygen, there is no buildup of lactic acid in the muscles and they can quickly recover from their dives. On very rare occasions, however, emperor penguins must hold their breath for much longer. It appears that in winter and early spring when they are hunting in the packice,their dive holes close as wind and waves move the ice floes around. The penguins have to work very hard to find another opening to get out of the water and sometimes, very rarely, they get stuck under the ice for very long periods. The longest dives recorded lasted about 22 minutes. The penguins had dived to only 60 or 70 metres (very shallow

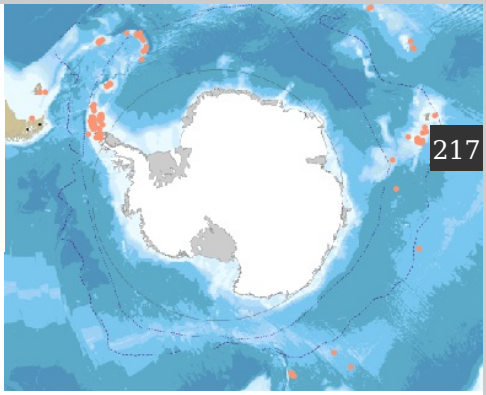
Ecology

Emperor penguins are the only vertebrate species that breeds during the Antarctic winter. Colonies start to assemble approximately in April when the fast ice is stable enough to support them. For several weeks, the birds are occupied finding mates, creating pair bonds and eventually mate. The females produce only one egg which is quite small compared to the body size of penguins. Eggs weigh around 460 g which is less than 2% of the body mass of a 28 kg female.
Since only the male penguins incubate the eggs, the females have to pass over the egg to their partners. It is no easy task to move a roundish egg with a long, narrow beak quickly across the ice onto the partnerâ€™s feet! In temperatures of less than -20Â°C, the eggs quickly freeze if exposed for too long. The males scoop up the eggs onto their feet and cover them with a fold of their skin. Part of this skin fold is feather-free so that the fatherâ€™s body heat can be transferred directly onto the egg. The incubation temperature is roughly 37Â°C.
While the females leave the colonies to feed in the pack ice (zone of sea ice made up of ice floes) or in polynyas (ice-free areas in the sea ice area), the males incubate their eggs for about 65 to 70 days. During this period, they cannot hunt and are entirely reliant on the body reserves they deposited before returning to their colonies in late autumn. Although their huddling behaviour makes it possible to stretch out their energy reserve, if these body reserves are insufficient, the males run the risk of either starving to death or having to leave the egg and venture out to sea to feed again.
Of great importance to the incubating males is access to fresh snow. The care of the egg prevents them from going to forage at sea. However, their bodies are still metabolising the energy stores and hence produce waste products. Each time a male defecates water is lost from its body. To make up for this water loss the males need to eat snow.
The females return to their colonies in mid- to late July to relieve their mates. The chicks have usually hatched by then and weigh around 300 g. Their eyes are open and they are capable of some limited locomotion. However, the chicks are not yet able to regulate their own body temperature. Hence, they need to be brooded by their parents for about 50 days. Growth is slow during this time as they chicks need to remain small enough to fit into the brood â€œpouchâ€. Both parents share the brooding duties.
The fast-breaking foraging trips of the males vary in duration and depend upon how far the fast ice extends from the colony. It is not uncommon though that the first trip lasts 2-3 weeks. While the males are at sea replenishing their body reserves, the females bond with their chick and feed it on demand for as long as they still carry food in their stomachs. The food consists of small fish, particularly the Antarctic silverfish Pleuragramma antarcticum, Antarctic krill Euphausia superba, and assorted squid.
Around September, the chicks are able to maintain their body temperature at ~39Â°C. They now start to grow quite rapidly and require so much food that both parents have to provision them. The chicks start to form creches, which offer warmth and protection for predators, such as Antarctic skuas (Catharacta maccormicki) and Southern giant petrels (Macronectus giganteus).
By mid-December, the chicks can reach a body mass of some 20 kg although many are lucky to reach 13-15 kg. How heavy they are in summer depends on how much food their parents managed to secure and how often the chicks have been fed in the previous months. Like their parents they need sufficient body reserves if they are to survive the moult from down to juvenal feathers which will make them waterproof and able to go to sea. The chicks often leave the colonies well before the last bit of down has been shed.
Breeding adults have to decide for how long they continue to feed their offspring. If they abandon the chick too soon, it will perish. If they feed it for too long, they might put their own survival at risk because they need a certain time to forage intensively to get ready for the annual moult. Adults who either did not breed in a given season or who lost their egg or chick early on can be found in colonies moulting already in mid-December. Most breeders though commence their moult in late January. It takes about 3 weeks for the entire plumage to be exchanged. The old feathers are quite worn and are pushed out by the new ones developing underneath the skin. The blood flow to the flippers is increased to the point that their thickness doubles. Growing feathers is energetically expensive and a lot of blood is needed to carry the necessary nutrients into the flippers.
At the end of the moult, the penguins are skinny and often weak. They must return to sea and start feeding again in preparation for the next breeding season.
Meanwhile, the young penguins remain at sea. Not only do they travel vast distances away from their natal colonies, they often swim north and leave the pack ice far behind them. Usually in late autumn they turn back. towards the continent but usually do not return to their colonies until they are sexually mature (~ 5 years old). Only occasionally young penguins are seen in breeding colonies.

Scientific name

Pygoscelis papua (Forster, 1781)

Animalia Chordata Aves Sphenisciformes Spheniscidae Pygoscelis



Description

Gentoo penguins belong to the pygoscelid or brush tail penguins that also include Chinstrap and AdÃ©lie penguins. Males and females look very much alike but females tend to be slightly smaller, particularly with regard to the beak depth and length.
Gentoo penguins stand about 60 cm tall with both feet on the ground and their heads pulled in. The colouration of the sexes is identical; head, throat, back and flippers are dark bluish-black while the chest, belly and underside of the flippers are white. The black and white body parts are clearly separated. Above the eyes are two white patches that often join across the crown. A dusting of white feathers is sprinkled around their head, nape and upper back.
The top of the beaks and their tips are black but the sides are orange to red. The feet are pinkish-orange to red and the irises are brown.
Juveniles can be distinguished from adults only in their first year when the white patches on their heads are discontinuous and the rings around the eyes are still white; some Gentoo penguins appear to retain the white eye rings into adulthood. Juveniles are also often smaller than fully grown adults
As in all penguins, the body mass of Gentoo penguins is highly variable throughout the year. At the beginning of their breeding cycle, these penguins weigh usually 4.8 â€“ 5.7 kg. Post-breeding and prior to the moult they can reach a body mass of more than 8 kg.
Like Chinstrap and Adelie penguins, their tail feathers are much longer compared to other penguin species.

Distribution info

Gentoo penguins have a circumpolar distribution and their colonies are found at the Antarctic Peninsula and many sub-Antarctic islands. Where they go in the non-breeding period is poorly understood but some adults appear to remain in the vicinity of their colonies all year round. Vagrants were found as far north as 43°S along the Argentine coast and at the coasts of New Zealand and Australia. The largest breeding populations are found at the Falkland Islands and South Georgia.
The at-sea distribution varies throughout the year but Gentoo penguins rarely travel long distances away from their colonies. Their foraging trips usually last only hours rather than days but their duration increases as the chicks grow older and demand more food.

Size

The global population of Gentoo penguins is estimated to comprise about 314,000 breeding pairs. The size of their colonies varies markedly and they can comprise as little as a dozen nests or more than 2000. The colonies are rather loosely dispersed with inter-nest differences averaging 80-100 cm. Nest site fidelity was very high at South Georgia but less so at King George Island.
The population trends differ with region. While increases in colony size appear to occur in the Antarctic Peninsula region (~ 25% of global population), decreases have been reported from populations in the sub-Antarctic where the remaining 75% of Gentoo penguins live. The decreases also vary with region but the causes for the decreases have so far not been explained. Human disturbance and interactions with commercial fishing operations are major threats.

Habitat

Gentoo penguins breed in the ice-free areas of sub-Antarctic islands and the Antarctic Peninsula. Most colonies are in near the shores but at South Georgia Island some colonies are located some 2 km inland and about 200 m above sea level. Nests are either built from small stones or are prepared on the cushion plant Azorella or tussock (Poa spp.). In the sub-Antarctic, Gentoo penguins prefer vegetation as nesting material but in their southern colonies all nests are made of pebbles.

Depth of the distribution

Diving
During the breeding season, Gentoo penguins tend to forage inshore within about 30 km of their colonies. But during winter they may go much farther afield; one penguin from the Falkland Islands, for example, travelled to 276 km from the coast. Generally though, they do not move far from their breeding grounds even outside the breeding season.
Gentoo penguins usually forage during the day. Although they can reach maximal depths of about 212 m (recorded in Marion Island in 1981), most of the time they forage at 40-80 m. Dives last on average 1-2 minutes but the longest time spent submerged is an astonishing 677 s recorded in South Georgia in 1989.

Ecology

The onset of breeding among Gentoo penguins appears to be dependent upon the latitudes of the colonies. Populations south of 50°S start their breeding cycle in spring to early summer (Oct-Nov) while those breeding north of 50°S breed during the winter (Jun-Aug). They lay clutches of two eggs which weigh about 130 g. The duration of the laying period also varies with location; at Crozet Island, laying can last up to 154 days compared to only 41 days at the South Orkney Islands. The two eggs are similar in size and shape although minor difference can exist. Eggs that are lost are usually not replaced.
Gentoo penguins do not necessarily breed every year. Every now and then an individual skips a season, especially when it was unsuccessful in the previous season or when environmental conditions are poor, eg a lot of sea ice is present. However, when they engage in reproductive activities the partners share the incubation duty and change over frequently usually ever 2-3 days. Eggs are laid 3 days apart and are incubated for 32-42 days.
The eggs hatch within one or two days of each other and the chicks are brooded for up to 10 days. Twin chicks appear to be brooded for longer and join the crÃ¨ches at an older age than single chicks. Chicks are about 25-29 days old when they join a crÃ¨ches which are often small comprising no more than 10 chicks. Depending on the colony chicks commence their moult at 39 to 85 days of age.
Chicks usually receive less than 2 feeds per day and feeding chases are common once the chicks are old enough to join crÃ¨ches.
Overall it takes about 80-100 days to rear chicks from hatching to fledging. Breeding success is highly variable among colonies and between years but often only one chick is raised successfully. Nest failure is due to nest desertion, mismatched nest relief, infertility of eggs or predators.
The level of fidelity to a previous mate or nest site varies among years. In years when the return rate to the colony is low, few if any birds retain their previous partners. However, in years when many penguins attempt to breed mate fidelity can be as high as about 90%.
The main predators are skuas, giant petrels, Kelp gulls (Larus dominicanus), fur seals and, on some islands, feral cats. Southern elephant seals are occasionally observed to cause havoc among colonies at Macquarie Island.
The diet of Gentoo penguins varies with location, as well as with season. Around the Antarctic Peninsula and South Georgia they mainly consume crustaceans, such as amphipods and Antarctic krill Euphausia superba while those at Macquarie Island prefer lantern fish (myctophids) and notothenid fish. At the Kerguelen Islands in the Indian Ocean, Gentoo penguins foraged mainly on fish in winter but on the krill Euphausia vallentini in summer.

Scientific name

Aptenodytes patagonicus Miller, 1778

Animalia Chordata Aves Sphenisciformes Spheniscidae Aptenodytes



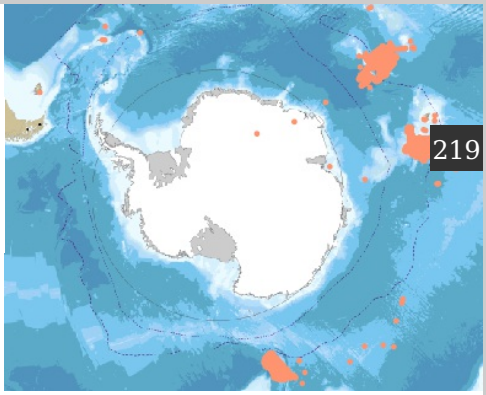






Description

Monotypic although subspecies were suggested in the past. In 1911, the amateur ornithologist Gregory Mathews suggested that there were three subspecies of King penguins.
One, Aptenodytes patagonicus longirostris, was dismissed but the two others were accepted by James Lee Peters, an American ornithologist who was the curator for birds at the Harvard Museum of Comparative Zoology (Peters 1931). But Peters accepted Mathewsâ€™ notion that A. p. patagonicus was characterised by a ring of blue feathers around the tarsus and occurred at the Falkland Islands and South Georgia. In contrast, the tarsi of A. p. halli were supposed to be white at the front and coloured at the back. A. p. halli was thought to breed at the Kerguelen, Crozet, Prince Edward, Heard, and Macquarie islands. However, examination of images of King penguins from different locations quickly shows that the vast majority of King penguins at any location has the two-coloured feathering on their tarsi. In 1936, Robert C Murphy also dismissed Mathewâ€™s second argument for the division into subspecies, namely that the variations of the colouration in the penguinsâ€™ flippers were also â€˜proofâ€™ for the existence of subspecies (Murphy 1936). Murphy examined many specimens and found that the variations described by Mathewâ€™s commonly occurred in all King penguin populations. In 1960, Bernard Stonehouse also concluded that there were no grounds to postulate sub-species among King penguins (Stonehouse 1960).
In one of the first genetic studies on King penguins French researchers compared DNA of King penguins from the Crozet and the Kerguelen islands. According to Mathews, these two populations should be very similar. However, the genetic distance between them was relatively high (Viot et al. 1993). This is further evidence that the division into subspecies as suggested in 1911 cannot be upheld.
King penguins are the second largest penguins alive today in terms of size and body weight. The largest penguins are the King penguinsâ€™ cousins, the emperor penguins. The colouration of male and female King penguins looks alike but males tend to be slightly larger. However, there is much overlap between the genders and a large female can be difficult to distinguish from a small male. Measured from the tip of their beaks to the tip of their tails they are approximately 90 cm long but when they are upright they stand about 65 cm tall. Their necks comprising 13 vertebrae are flexible and highly extendable. When an adult pulls in its head, the cervical vertebrae form a strong S-bend and shorten the appearance of the penguin.
The bodies of King penguins are cigar shaped and streamlined. The flippers are about 32 to 34 cm long and are highly specialised for fast underwater movement. Head, chin, throat and neck are black and contrast strongly with the deep yellow paisley-shaped auricular (ear) patches. The upper part of the chest is also deep yellow but most of the chest and underside of the flippers are a soft white which is demarcated from the dark grey-blue back by a black stripe. The beak is narrow and long with a curved tip. The mandibles are black and the mandibular plates on the lower mandible range in colour from yellow or orange. The feet and legs are black and the iris is dark brown.
The body mass is highy variable throughout the year. When arriving at the colony at the start of the breeding season (October), the penguins weigh around 13 to 15 kg. Unlike their Antarctic cousins, King penguins can go to sea regularly during the chick rearing period since they are not restricted by seaice. Nevertheless, when feeding chicks the parents have to work hard and it is not uncommon to find adults that weigh only about 9 kg during the chick rearing period.
It takes about 2 to 3 years for a King penguin to acquire its full mature plumage. Juveniles have faint yellow feathers on the chest and the ear patches. Their throats and chins are a soft grey and their beaks are



Distribution info

King penguins have a circumpolar distribution and breeding colonies are located on the sub-Antarctic islands: Marion, Prince Edward, Crozet, Kerguelen, Heard, Macquarie, South Georgia and the Falkland Islands. Currently a new colony may be in the process of becoming established in Patagonia. The colonies are densly occupied and are located on flat ground or gently raising slopes.
Their at-sea distribution varies with season. As most of the islands occupied by King penguins lay north of the Antarctic Polar Frontal Zone (APFZ), King penguins tend to travel south towards the APFZ during the early breeding season (November to April). In winter, they head even farther south towards the ice-edge of Antarctica.

Size

The islands and island groups that are home to King penguins are usually occupied by several colonies. King penguins were cruelly slaughtered for their blubber oil in their tens of thousands (possibly hundreds of thousands) in the 19th and early 20th century. Some colonies were nearly driven into extinction. For example, in November 1951, only five King penguins were sighted at Spit Bay, one of them a chick, but in December 1954, no King penguins were seen at Spit Bay (Budd and Downes 1965). Today one of the largest colonies is located at Macquarie Island at Lusitania Bay. Here, only just over 3000 King penguins were left in 1930. The sealers did not keep good records on how many bird they killed and it is impossible to estimate how large the exploited colonies once were. But there were certainly many more in 1810 when the island was discovered than there were in 1930. The killing at Macquarie Island had stopped in 1918; the King penguin numbers started to recover and by 1980 there were an estimated 218 000 birds at Lusitania Bay (Rounsevell and Copson 1982). The largest King penguin population is currently at the Crozet Islands where more than half a million pairs breed. In recent years, King penguins have been seen at a small beach at Terra de Fuego in Argentina. Whether or not they will try to establish a colony there is as yet unknown but the birds are carefully watched by the locals. The size of the global population is difficult to estimate but ranges between 2 and 3 million.

Habitat

King penguin colonies are located on solid land. Since they incubate their single egg on their feet they prefer the ground to be rather flat and free of large stones. The colonies are often close to the waterâ€™s edge of the sub-Antarctic islands the penguin occupy but some are several hundered metres away from the coast. To a degree King penguins generate their own breeding space. For example, some narrow, flat coastal areas of Macquarie Island are covered in tussock grass Poa cookii. In some places, King penguins established themselves among the tussock which over time became sparse because the plants could not thrive in the nitrogen rich faeces the penguins deposited around them. At Heard Island, the King penguin colonies largely occupy broad valleys away from the coast

Depth of the distribution

King penguin are exquisit divers and in the bird world second only to Emperor penguins. Maximal dive depths were recorded to 343 m (PÃ¼tz and Cherel 2005) but most of the time King penguins hunt at depths of around 80 to 130 m. Deep dives appear to occur only during daylight hours while night dives tend to be shallow (~ 30-50 m).

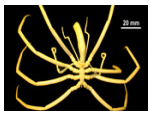
Ecology

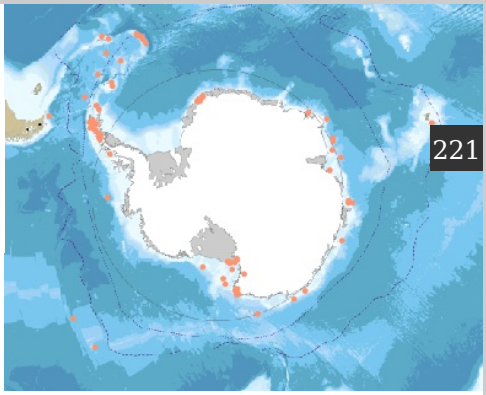
King penguins have the longest breeding cycle among penguins. It takes them 14 to 16 months to rear a chick. Hence, a successful pair is unlikely to attempt breeding more than twice in three years. At no time during the year are their colonies void of penguins, ie there are always penguins present. However, their activities vary with time of year. Many breeders gather in the colonies in October/November. They perform extensive courtship behaviours in the search of for a mate. It is common to see King penguins in triads on the beaches where usually two females compete for the same male. Like Emperor penguins, King penguins do not build a nest but they do fiercely defend a small breeding territory inside the colony area. The females lay their single egg any time from November till March. Both parents take part in the incubation of their eggs which weigh usually 230 to 380 g. The eggs are carried on top of the parentsâ€™ feet and are covered by a skin fold.
Chicks hatch after about 54 d and weigh about 220 g; it takes 2-3 days to get out of the eggs. The chicks are nearly naked when they first leave the egg and entirely dependent upon their parents for warmth and food. For about a month the baby penguins are brooded; both parents share this duty. During brooding, one parent stays with the chick while the other goes out and hunts. When the foraging parent returns, he/she relieves the partner who now goes to sea. The returned parent continues to keep the chick warm and safe and feeds it several times per day.
By April, most chicks have grown up to a point at which they now are able to regulate their own body temperature. They start gathering in creches, kindergardens for penguins. To survive the coming winter they need sufficient body reserves because the parents are largely leaving their offspring in April/May and return only in September/October. A healthy fat chick that weighed about 8 kg in April weighs only about 5 kg when its parents return in the next spring. During the winter, they rarely receive food and gather in large creches to stay warm, as well as seek safety from predatory birds, such as skuas Catharacta spp and giant petrels Macronectus spp.
Upon their parents return to the colony, the chicks are fed again and quickly put on body mass. They now have to get ready for the moult during which they exchange their soft down for â€œrealâ€ feathers that will enable them to survive at sea.
Since during the moult every single feather is replaced, it costs a lot of energy. Chicks and adults whose body reserves are insufficient cannot survive because as long as the new feathers grow their plumage is no longer waterproof. It they were to go to sea to feed before their plumage is ready, they will get wet and waterlogged and are likely to die. The well-fed penguins stay out of the water for about a month when they moult. They lose about half their body weight but their new feathers are soft and shiney and able to keep the penguins warm and dry for another year.

Scientific name

Colossendeis australis Hodgson, 1907

Animalia Arthropoda Pycnogonida Pantopoda Colossendeidae Colossendeis





Description

Colossendeis specimens are beautiful creatures highly admired in collections due to their larger size compared to other pycnogonid species. The bizarre morphology of pycnogonids is in full display in this genus in which most of the species have a proboscis longer than the trunk. Colossendeis australis is known as a circumpolar and eurybathic (15-3935 m) species and can be recognized by a unique combination of characters that include a downcurved swollen proboscis, subchelate oviger strigilis and short propodal claws. The biology of Colossendeidae in general is poorly known, there is no information about their reproductive biology as no eggs or larvae have ever been found. On the other hand this lineage of pycnogonids could be one of the most ancient according to the phylogeny proposed (Arango pers. comm.).

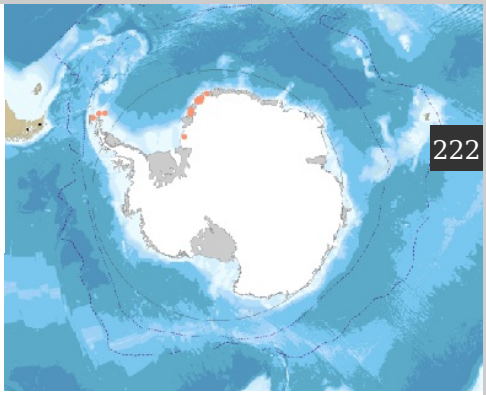
Distribution info

Although Colossendeis has representatives in all oceans around the world, the deep waters of the Southern Ocean appear as a centre of species radiation for these fascinating animals (Arango pers. comm.).
C. australis is present in a wide bathymetric range from 143 to 3931 m depth (Cano & LÃ³pez-GonzÃ¡lez, 2007). It has a circumpolar distribution and some sites in the Southern Atlantic and Southern Pacific basins, and is found in the Falkland Islands, South Sandwich Islands, Orcadas Islands, South Giorgia, Kerguelen Islands, Antarctic Peninsula, Ross Sea, Adelie Coast and off the coast of Chile and Argentina (Child, 1995).

Scientific name

Isoseculiflustra tenuis (Kluge, 1914)

Animalia Bryozoa Gymnolaemata Cheilostomatida Flustridae Isoseculiflustra



Description

Colonies of Isosecuriflustra rubefacta occur in groups of hundreds to thousands in continental shelf waters. The species is generally found with two others: Nematoflustra flagellata and Himantozoum antarcticum. It is common and abundant but often only below 20m. It is typically brown to purple with striking bands across the frond, but these are not growth lines as described in Cellarinella watersi. The bands are formed by the brood chambers which are dark when containing embryos and translucent when these are released in January. Also unlike C. watersi the flustrid species are just unilaminar, that is active zooids are only on one surface of the frond not both. There are few Antarctic bryozoans for which more is known than this species. They feed for about 10 months of the year on small phytoplankton and grow nearly continuously. The fronds are colonised by a rich variety of tiny animals, a single frond may contain representatives of >8 major groups of animals and are a good place to look for marine mites.

Distinguishing Characters

Thin banded frond, resembles â€˜hornwrackâ€™ or algae

Distribution info
PanAntarctica

Size
Up to 25cm height

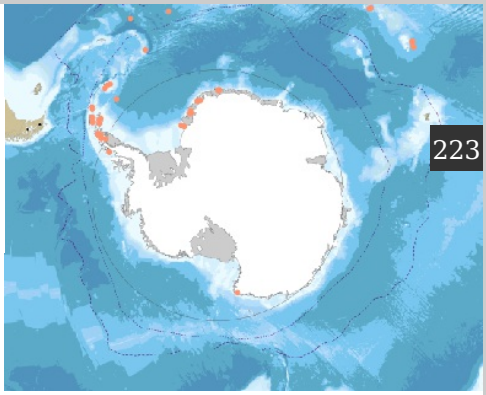
Habitat
hard rock ledges, cliffs and boulder fields

Depth of the distribution
10m to deep waters

Scientific name

Odontaster validus Koehler, 1906

Animalia Echinodermata Asteroidea Valvatida Odontasteridae Odontaster



Distribution info

O. validus is distributed throughout Antarctica and the Antarctic Peninsula, South Shetland Islands, South Orkney Islands, South Sandwich Islands, South Georgia Island, Shag Rocks, Marion and Prince Edward Islands, and Bouvet Island at depths from 0 to 914 meters (Clark, 1962; Clark, 1963; Bernasconi, 1970)

Description

Odontaster validus is the commonest and most abundant sea star inhabiting the shallow environment around the Antarctic continent (Dearborn, 1977; McClintock et al., 1988).

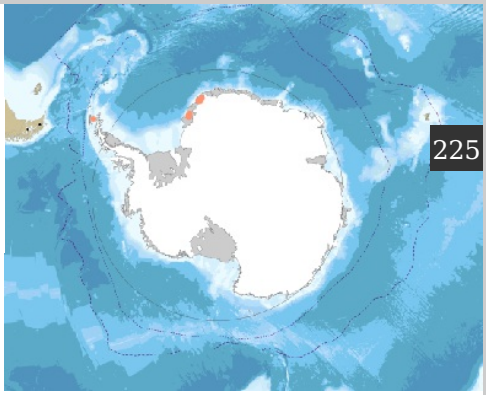
Ecology

Odontaster validus has a late sexual maturity and slow rate of growth. This starfish may grow only 1-2 g year-1, takes 3-6 years to reach sexual maturity (Pearse, 1969). O. validus may live for about 100 years (Pearse, 1969). The starfish O. validus has a demersal feeding larva with a brief pelagic phase to allow the dispersion without exposing the larvae to the hazardous surface waters. The larval development of Odontaster is extremely slow; it remains in the bipinnaria larval stage for about 2 months in the laboratory condition (Chia, 1970). In McMurdo Sound the period of spawning is from June to mid October (Pearse et al., 1986; Bosch & Pearse, 1990). O. validus is an omnivorous. Its diet includes the bivalves Limatula hodgsoni and Laternula elliptica, the sponges Rossella racovitzae, Rossella nuda, Scolymastra joubini, Tetilla leptoderma, and Homaxinella balfourensis, the hydroid Halecium arboreum, the sea star Acodontaster conspicuus, the sea urchin Sterechinus neumayeri, the isopod Glyptonotus antarcticus, bryozoans, suspended matter, animal dtritus, red algae, amphipods, crustacean nauplii larvae, ostracods, shrimp, ectoprocts, diatoms, and seal feces (Conlan et al., 2006). O. validus is prey of the sea anemone Urticinopsis antarcticus and the sea star Macroptycaster accrescens (Conlan et al., 2006).

Scientific name

Synoicum adareanum (Herdman, 1902)

Animalia Chordata Ascidiacea Aplousobranchia Polyclinidae Synoicum



Description

Orange in colour. This mid-sized squirt can get up to 20cm high and about half this in diameter. It has a round to phallic shaped upper, which feels quite solid to touch. Like in Sycozoa species the clearly visible zooids are arranged circling around the common cloaca. The lower stalk, from which several upper parts may come from, feels much tougher

Distribution info

15m to deep water, on hard substrates from some Subantarctic islands, throughout the Scotia Arc to the Antarctic Peninsula and Continental Antarctic coastline.

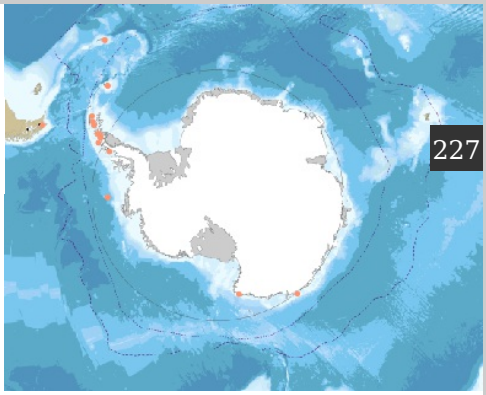
Ecology

S. adareanum is quite conspicuous as orange blobs in mature hard substratum communities. Unlike other colonial ascidians, though like some Aplidium species (not shown), they rarely occur as epibionts. The specimen shown is clean but some can be quite sediment strewn and even have particles incorporated into the outer test. Like other ascidians they are suspension feeders filtering phytoplankton. Their predators are unknown to date.

Scientific name

Inversiula nutrix Jullien, 1888

Animalia Bryozoa Gymnolaemata Cheilostomatida Inversiulidae Inversiula



Description

Inversiula nutrix is one of the few bryozoans, or even representatives of any invertebrate, which occurs in the intertidal zone. It is generally found on coastal boulders but does cover other surfaces such as animal shells or even drift plastic. The species dominates the shallow encrusting fauna on the shores of the Scotia Arc islands. Encrusting colonies can have feint annual growth lines and are usually orange/yellow to green but young colonies may be almost translucent. Colonies rarely live longer than 4 years and most in shallow water are less than 2 years old as they are smashed up by icebergs grounding. Many colonies bare scars and show ongoing repairs from scrapes that havenâ€™t killed them completely. During the summer I. nutrix colonies appear hairy from all the feeding tentacles everted.

Distinguishing Characters

Encrusting sheet, zooids each with two horns

Distribution info

Patagonia and Southern Ocean

Size

colonies usually <10cm diameter

Habitat

grows on organism shells or hard rock

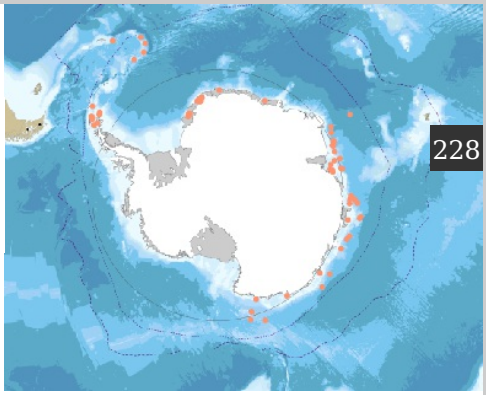
Depth of the distribution

intertidal to subtidal

Scientific name

Ophionotus victoriae Bell, 1902

Animalia Echinodermata Ophiuroidea Ophiurida Ophiuridae Ophionotus



Description

5 arms. Colour is variable from brown to bluish grey or white. The disc can be up to 4cm diameter while the arms are up to 9cm long.

Distribution info

5 to 1,266m on a variety of substrates (sometimes in very high densities) from Sub-Antarctica to the Antarctic Peninsula and Continent.

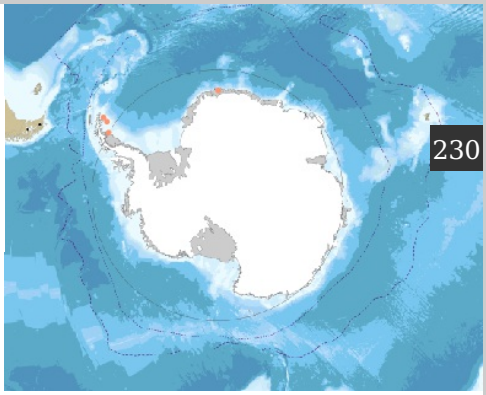
Ecology

Ophionotus victoriae is an opportunistic predator on a wide variety of invertebrates, particularly krill which it captures from the water column, although it does not appear to suspension or filter feed. It is also a scavenger of dead matter and detritus, and will cannibalise juveniles of its own species. Its predators include fish and the large brittle star Ophiosparte gigas, which it will try to flee from upon contact. Ophionotus victoriae spawns annually in the Antarctic summer.

Scientific name

Lyrocteis flavopallidus Robilliard & Dayton, 1972

Animalia Ctenophora Tentaculata Platyctenida Lyroctenidae Lyrocteis



Description

Lyrocteis flavopallidus is sedentary and usually found atop sponges or other elevated surfaces. However, it is able to move at least 1 to 2 m per day possible to attain a more advantageous feeding position. The systematic placement of Â«L. flavopallidusÂ» is somewhat uncertain because neither the anatomy of the reproductive system nor the larval development is known; the species may represent a new genus and possibly a new family.)

Size

Up to 11cm tall

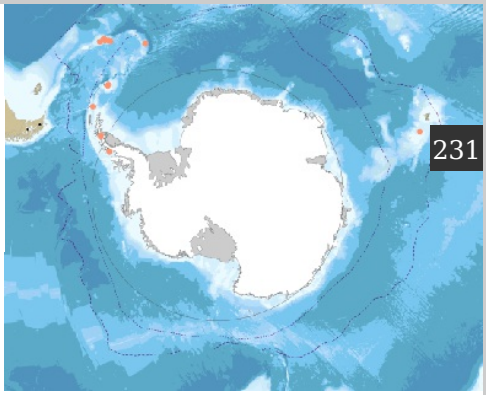
Depth of the distribution

Found from 36 to 761m

Scientific name

Arachnopusia inchoata Hayward & Thorpe, 1988

Animalia Bryozoa Gymnolaemata Cheilostomatida Arachnopusiidae Arachnopusia



Description

Yellow/brown to white in colour. This species is encrusting as small colonies but grows erect to form large foliaceous colonies 200cm in diameter. It is one of a number of species in this genus. Similar species are A. decepiens, A. columnaris and A. latiavicularis (mainly restricted to Antarctic Peninsula) and A. monoceros (mainly Subantarctic).

Distribution info

5m to deep water, on hard substrates. It is widely distributed in the Southern Ocean though not found in the Weddell Sea.

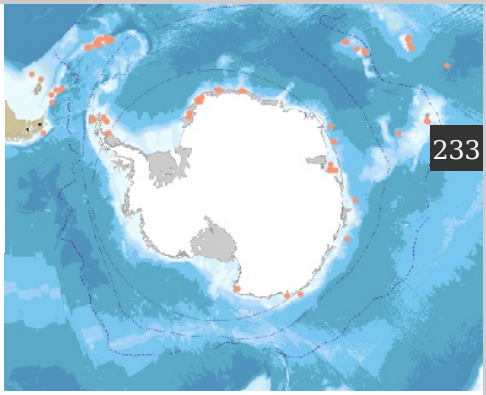
Ecology

Some underwater walls and overhangs are dominated by the large foliaceous colonies of this species (e.g. at Signy Island). As many as 40 epifaunal species have been found living in a single A. inchoata colony. It is a good competitor for space against other bryozoans and encrusting animals, even sponges. It is a very unusual suspension feeder as it feeds throughout the entire year. It is eaten by the nudibranch mollusc Pseudotritonia gracilidens (which is camouflaged when against it) as well as by various pycnogonans.

Scientific name

Astrotoma agassizii Lyman, 1875

Animalia Echinodermata Ophiuroidea Euryalida Gorgonocephalidae Astrotoma



Description

Astrotoma agassizii, the large brittle star belonging to the suborder Euryalina, has long, flexible, and mobile arms that use to capture the prey from the water column.

Distribution info

Astrotoma agassizii is found throughout the Southern Ocean in depths of 70-1000 m (Bernasconi & Dâ€™Agostino, 1977) and occurs irregularly on the shelves of sub-Antarctic islands and the Antarctic continent (Ferrari & Dearborn, 1989). Along the Chilean margin between Chiloe (42Â° S) and the Strait of Magellan. On the South Atlantic to North (39Â°) off Argentina Coast; Tierra del Fuego; Falklands, South Georgia and Shag Rocks Islands; Antarctic region (Tierra de Graham, Ross Sea, Haakon VII Sea; Tierra Adelia, Reina MarÃa, Mac Robertson and Enderby) (Castro Manso, 2010).

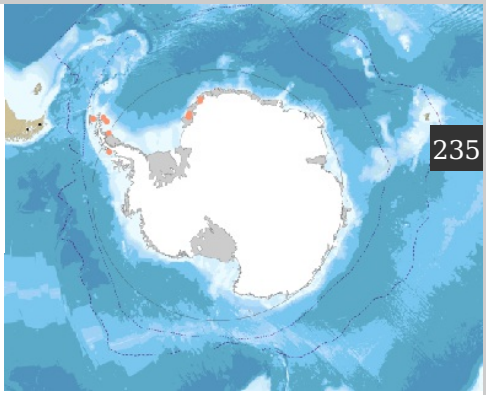
Ecology

The analysis of the stomach contents showed that the diet consisted of members of only two major taxa, Crustacea and Chaetognatha. Copepods occurred in 75.6% of brittle stars containing food and were the dominant prey group, followed by mysids (34.6%), chaetognaths (10.2%), and euphausiids (8.9%). Other prey included unidentified crustacean and organic remains, ostracodes, and amphipods. Euchaeta antarctica and Calanoides acutus constituted about 80% of the stomach content copepods (Dearborn et al. 1986).

Scientific name

Cnemidocarpa verrucosa (Lesson, 1830)

Animalia Chordata Ascidiacea Stolidobranchia Styelidae Cnemidocarpa



Description

Cnemidocarpa verrucosa is probably the most common ascidian (sea squirt) in shallow waters and is fairly featureless â€“ essentially resembling a translucent bag. It varies in colour from brown, through yellow to white and translucent. This species can be highly abundant and can dominate patches many metres in size. It is one of the best known of the Antarctic ascidians. It feeds during summer months and (like most of the benthos) has strongly seasonal reproduction, but unusually larvae are released in winter. Being almost just a â€˜bagâ€™ it has very low metabolic rates, even for Antarctic animals

Distinguishing Characters

large, translucent â€˜bag-likeâ€™

Size

Up to 25cm in diameter and 40cm in height

Habitat

occurs in most shallow coastal situations from sediment to hard rock

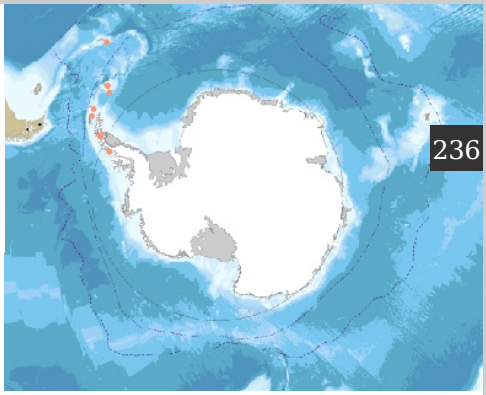
Depth of the distribution

5m to deep waters

Scientific name

Fenestrulina rugula Hayward & Ryland, 1990

Animalia Bryozoa Gymnolaemata Cheilostomatida Microporellidae Fenestrulina



Description

White to translucent in colour. This species is encrusting and is often so transparent that the tentacles and body can be seen inside the zooids when retracted. This species is the most common of its genus in shallows, though F. antarctica, F. cervicornis, F. crystallina, F. exigua, F. parvipora and F. proxima also occur.

Distribution info

5m to deep water, patchily very common in shallows, particularly on boulders undersurfaces. F. rugula occurs in the Scotia Arc and Antarctic Peninsula.

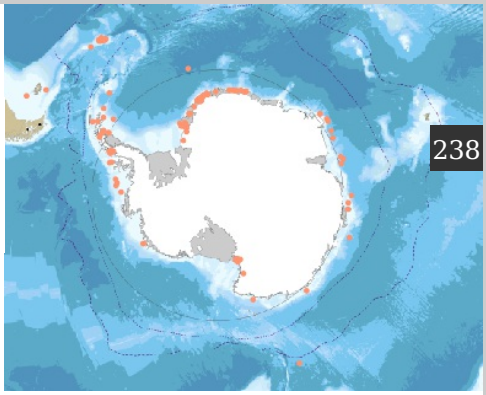
Ecology

In places this species represents more than 90% of the bryozoan colonies and is sometimes more abundant than the tiny white spirorbid worms. Typically growth in previous years contrasts in appearance from that in the present year, and when dry, faint annual rings can even be seen, enabling colonies to be aged. It is a fast growing pioneer species overgrown by almost all other encrusters. It is a suspension feeder and eats phytoplankton. It is probably grazed by limpets and echinoids.

Scientific name

Rossella racovitzae Topsent, 1901

Animalia Porifera Hexactinellida Lyssacinosida Rossellidae Rossella



Description

White, yellow or orange in colour. There are several morphs, many of which were once considered separate species. The commonly seen types are large (up to around 50cm high) and barrel or vase shaped, while the budding type is smaller (up to 15cm high) and vase or egg shaped.

Distribution info

18 to 2,000m, on hard or soft substrates from Sub-Antarctica and South Georgia to the Antarctic Peninsula and Continent

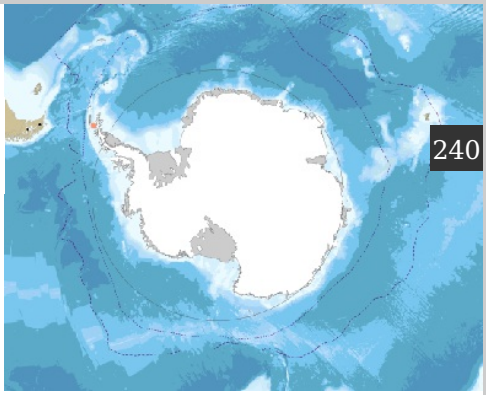
Ecology

Observations suggest that glass sponges such as Rossella racovitzae are important in the colonisation of soft substrates. They deposit spicules which eventually form hard mats that other sponges, unable to colonise soft surfaces, can settle on. Rossella racovitzae reproduces by asexual budding as well as sexually. Asexual reproduction is unusual in Antarctic sponges. This sponge is a suspension feeder and contains diatoms living within its cells, but their role is unclear. The diatoms are photosynthetic and can use light which is transferred into the sponge body by the sponge spicules, which act as natural optical fibres.
The main predators of Rossella racovitzae are seastars, and the dorid nudibranch Austrodoris kerguelenensis.

Scientific name

Celleporella bougainvillei

Animalia Bryozoa Gymnolaemata Cheilostomatida Hippothoidae Celleporella



Description

White to translucent in colour. This encrusting species is, like C. antarctica, very thinly calcified and has smaller male than female zooids. Characteristically there are three humps along the length of each zooid pointing towards the aperture. Colonies vary in shape but are usually round.

Distribution info

0m to deep water, patchily very common in shallows, particularly on boulders undersurfaces. C. bougainvillea occurs as shallow as the intertidal zone and is distributed from Patagonia through the Scotia Arc to the Antarctic Peninsula. It also occurs at Kerguelen Island. The only other Antarctic Celleporella species it might be mistaken for is C. dictyota, which has many smaller humps.

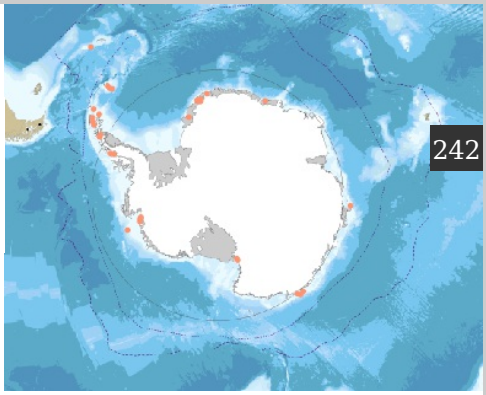
Ecology

This species is typically found on boulders and pebbles and sometimes on organisms as an epibiont. It is a poor competitor, overgrown by many other encrusters. Like other bryozoans it is a suspension feeder and eats phytoplankton. It is eaten by pycnogonans and probably incidentally grazed by limpets and echinoids.

Scientific name

Cellarinella watersi Calvet, 1909

Animalia Bryozoa Gymnolaemata Cheilostomatida Sclerodomidae Cellarinella



Distinguishing Characters

Bright orange, rooted, plate-like bryozoan

Distribution info

PanAntarctic

Size

up to nearly 30cm in height and 15 cm wide

Habitat

sediment or stones amongst sediment

Depth of the distribution

40m to deep waters

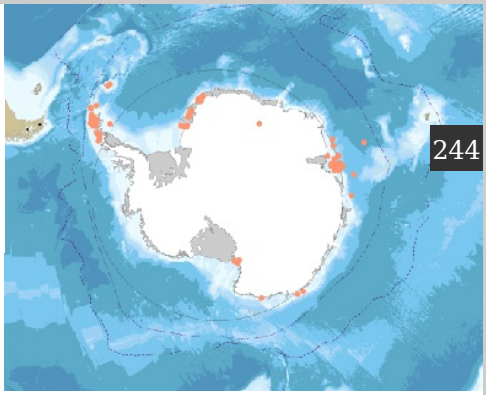
Ecology

Colonies of Cellarinella watersi generally occur in groups of tens to hundreds on continental shelf waters. The Cellarinellids are, all but one, endemic to Antarctica and form great â€˜forestsâ€™ over parts of the seabed, particularly deeper than 100m. The colonies are thin plates a few mm thick with growth lines obvious representing each years growth. If pieces break off in currents they grow rootlets and re-erect themselves to form new colonies, growing from the fragment. They feed on phytoplankton for about 4/5 months over the summer period when they appear â€˜hairyâ€™ underwater from all the tentacles protracting.

Scientific name

Eusirus perdentatus Chevreux, 1912

Animalia Arthropoda Malacostraca Amphipoda Eusiridae Eusirus



Distribution info

20 to 2,000m, found on the seafloor or on other benthic invertebrates from Sub-Antarctica to the Antarctic Peninsula and Continent

Description

A large amphipod, up to 8cm long.

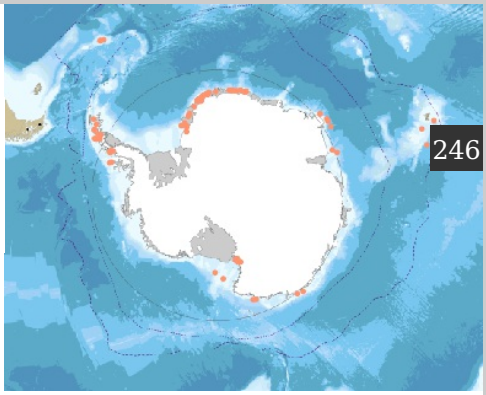
Ecology

Eusirus perdentatus is a carnivorous predator with occasional scavenging behaviour. It mainly eats other small crustaceans and its diet also includes polychaete worms. It is preyed on by Trematomus fish. Studies suggest that this animal only breeds once in its lifetime, and the juveniles hatch out at the end of the austral summer.

Scientific name

Cinachyra antarctica (Carter, 1872)

Animalia Porifera Demospongiae Spirophorida Tetillidae Cinachyra



Description

Round, white or pale yellow body, covered in distinctive sticking-out tufts of long spicules. Cinachyra antarctica is a slow-growing sponge and reaches up to 30cm high.

Distribution info

18 to 761m or more

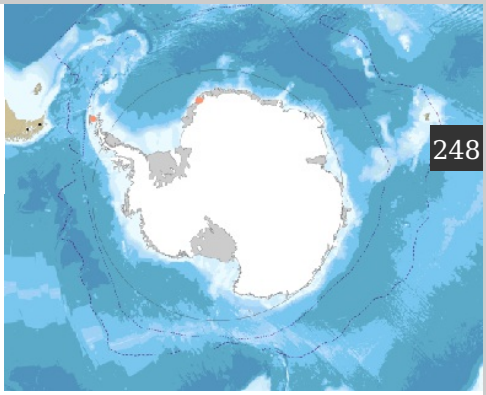
Ecology

Sponges are suspension feeders, and in Antarctica are commonly preyed on by starfish, however the spicules on Cinachyra antarctica probably act as a defence against predators, preventing them from reaching the sponge body.
Some estimates have calculated that Cinachyra antarctica may reach 1,550 years in age. However there is no way to directly determine the age of a sponge, so this estimate was derived using oxygen consumption and metabolic rate as an approximate measure.

Scientific name

Pyura setosa (Sluiter, 1905)

Animalia Chordata Ascidiacea Stolidobranchia Pyuridae Pyura



Description

Small and greyish in colour, with its surface completely covered in flexible bristles, making it look more like a sponge than an ascidian. Pyura setosa grows up to 7.5cm long and smaller individuals may have a short stalk.

Distribution info

Found below 15m, often on soft substrates, from Sub-Antarctica to the Antarctic Peninsula and Continent.

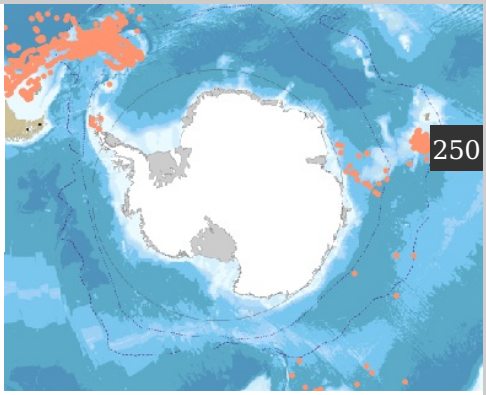
Ecology

Pyura setosa is a suspension feeder, siphoning through water and filtering out any food material. The bristles probably protect the siphon apertures to some extent. Other organisms such as bryozoans, red algae and other ascidians (recorded examples are Pyura discoveryi and Molgula enodis) may attach to the surface bristles and grow on large individuals.

Scientific name

Arctocephalus gazella (Peters, 1875)

Animalia Chordata Mammalia Carnivora Otariidae Arctocephalus



Description

Antarctic fur seals are one of the most numerous mammalian predators in the Antarctic. The population was hunted to near extinction at the start of the 20th Century for its pelt. It has subsequently recovered with the current population estimated to be in the region of 3-4 million. Around breeding beaches small groups or individuals can often be seen porpoising through the water and will often stop to investigate ships or small boats. On land they are often aggressive and, during the breeding season, large aggregations can make access to beaches difficult.

Distinguishing Characters

Antarctic fur seals can easily be confused with most of the other fur seal species, their size, coloration and head shape are the easiest characteristics with which to identify them.

Distribution info

Wide distribution, primarily breeding on sub-Antarctic and Antarctic Islands in the South Atlantic and Indian Ocean regions of the Southern Ocean. 95% of the world population breeds on South Georgia. Non- breeding individuals are more widely dispersed.

Size

There is large sexual dimorphism with males being up to 1.5 times longer and four times heavier than females. Bullsâ€™ standard length is 180 cm (170-200 cm) weighing 130 kg (90-200). Adult females are on average 130 cm (115 â€“ 140) in length and around 35 kg (20 â€“ 50) in weight. Mean weights for new born pups are 5.4 kg for females and 5.9 kg for males with lengths ranging from 58 -66 cm.

Habitat

Fur seals preferentially breed on shale or pebble beaches close to areas of high marine productivity, but in areas of high density they can be found on almost all sea-shore environments. As the breeding season progresses mother-pup pairs usually move into tussock grass areas behind the breeding beaches.
Away from the mating season males appear to move southwards foraging around, and hauling out on, the ice edge or Antarctic islands. During winter females disperse at sea ranging from the ice edge to areas far north of the polar front.

Depth of the distribution

Antarctic fur seals are shallow divers confined to surface waters. Females generally dive to 30 - 40 m and rarely exceed 200m. Larger males dive deeper ~100m with a maximum recorded of 350 m.

Ecology

Antarctic fur seals are highly polygynous with territorial bulls defending harems of, on average, nine females. Territories are established on breeding grounds in October to early November, when the musty-smelling males are extremely aggressive in defence of their patch of beach. Females arrive a few weeks later giving birth a few days after coming ashore. Lactating females then alternate between short trips to sea (2-10 days) and periods ashore (1-2 days) suckling their pups. Pups are weaned at about four months old. Mating takes place a few days after the pup is born and the female gestates for just over a year, so that she is pregnant whilst suckling.
They feed mostly on krill, Euphausia superba, in the South Atlantic part of their range with myctophids and nototheniids dominating elsewhere. The predation of squid or penguins may also be locally or seasonally significant. They have few predators although leopard seals and killer whales are known to take smaller individuals particularly juveniles.