AFG | ANTARCTIC FIELD GUIDE

a Field Guide to Antarctic Sponges

by Bruno Danis

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About Antarctic Field Guides

About the project

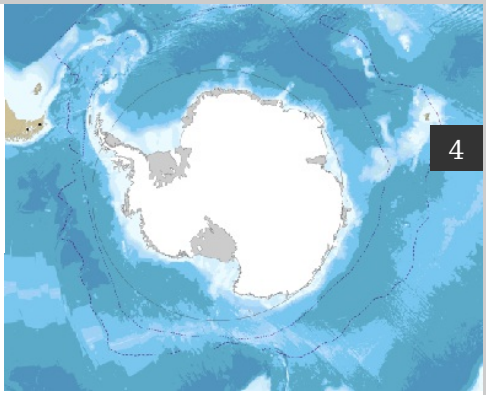
The Antarctic Field Guides is a collaborative tool offering free access to information that can help you identify Antarctic organisms. Thanks to the initial efforts from Prof. Andrew Clarke (British Antarctic Survey) and Dr Stefano Schiaparelli (University of Genoa and Italian National Antarctic Museum), 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

Anoxycalyx (Scolymastra) joubini (Topsent, 1916)

Animalia Porifera Hexactinellida Lyssacinosida Rossellidae Anoxycalyx



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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

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.

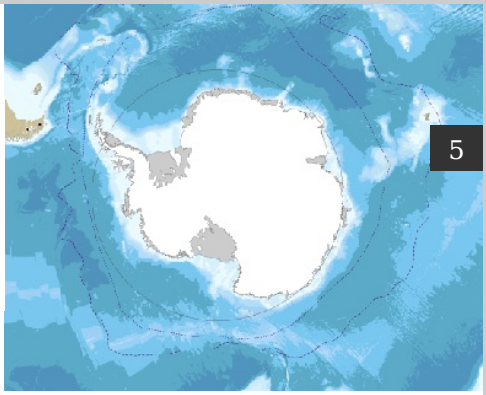
Distinguishing Characters

large and hard, vase shaped and white

Scientific name

Lissodendoryx (Lissodendoryx) flabellata Burton, 1929

Animalia Porifera Demospongiae Poecilosclerida Coelosphaeridae Lissodendoryx



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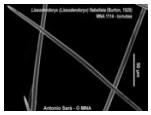
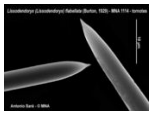
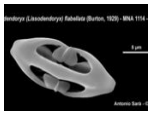
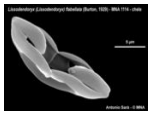
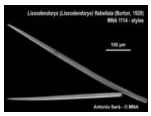
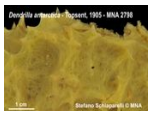
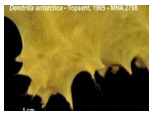
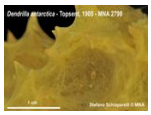
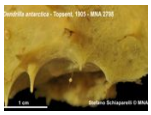
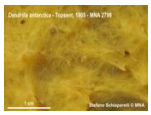
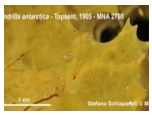
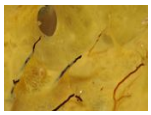
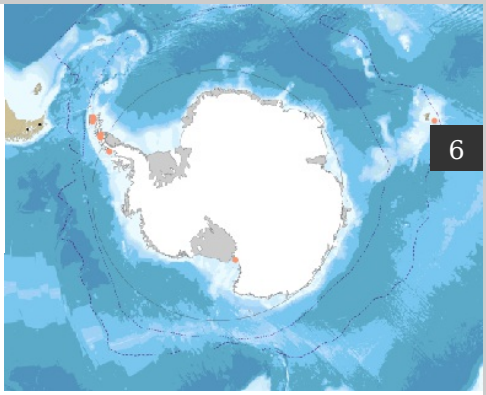






Scientific name

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.

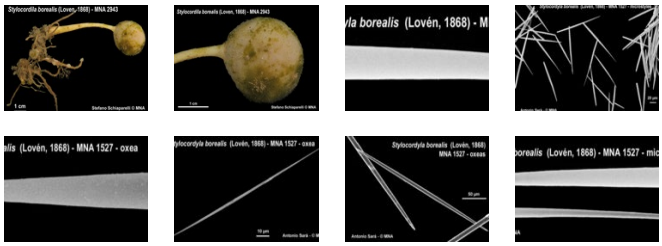
Distinguishing Characters

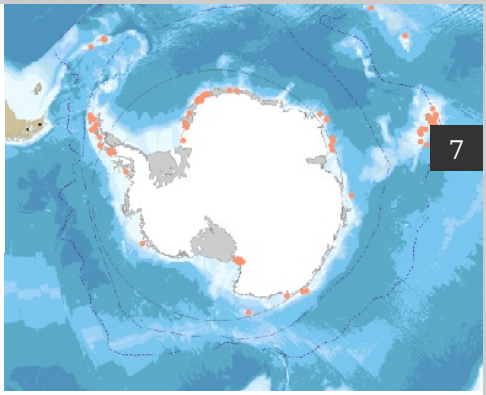
bright yellow, spiky, one of the most common shallow sponges

Scientific name

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.

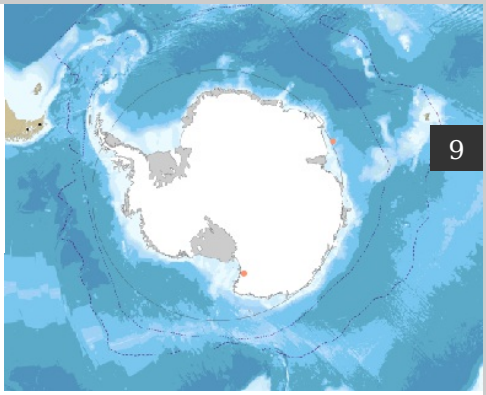
Ecology

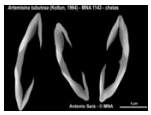
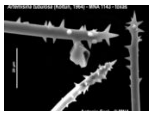
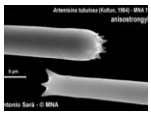
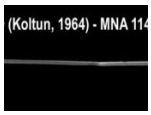
Stylocordyla borealis is a suspension feeder. It occurs in patches, probably due to its mode of reproduction, in which eggs are incubated inside the mother sponge and released as fully complete young sponges to settle nearby. Stylocordyla borealis has a system of rooting spicules which enables it to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

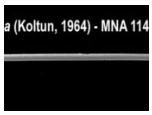
Scientific name

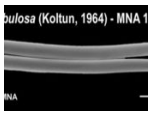
Artemisina tubulosa Koltun, 1964

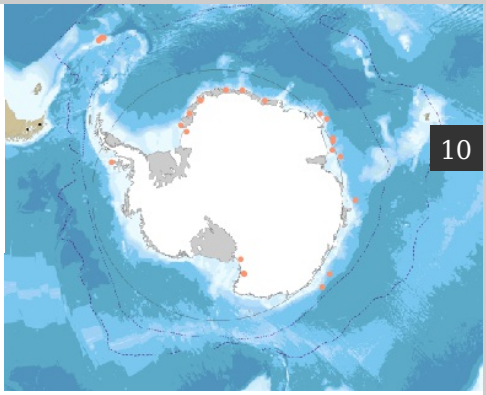
Animalia Porifera Demospongiae Poecilosclerida Microcionidae Artemisina









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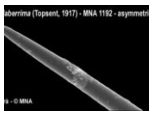
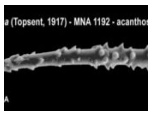
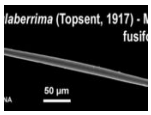
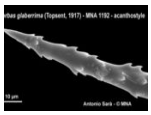
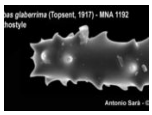
Scientific name

Phorbas glaberrimus (Topsent, 1917)

Animalia Porifera Demospongiae Poecilosclerida Hymedesmiidae Phorbas

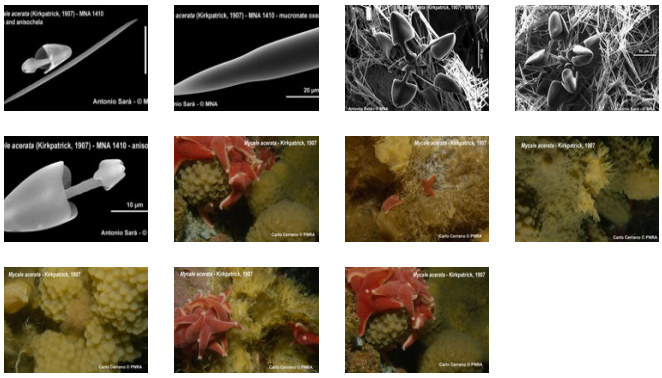


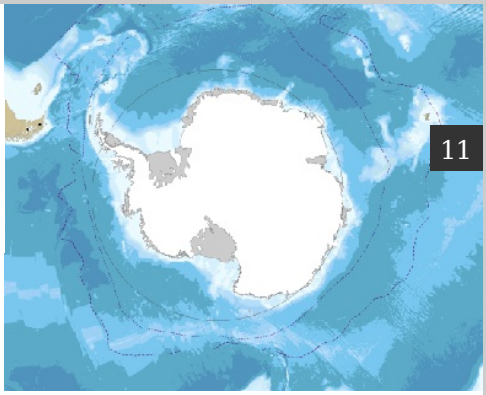


Scientific name

Mycale (Oxymycale) acerata Kirkpatrick, 1907

Animalia Porifera Demospongiae Poecilosclerida Mycalidae Mycale





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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

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.

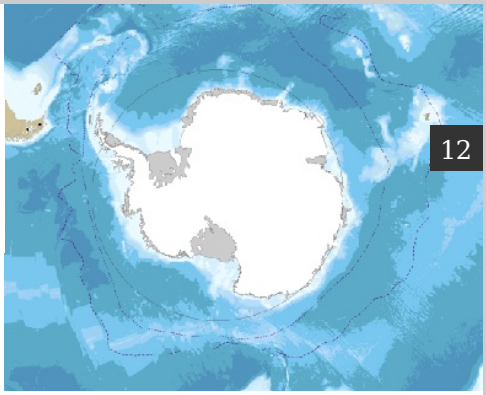
Distinguishing Characters

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

Scientific name

Latrunculia (Latrunculia) biformis Kirkpatrick, 1907

Animalia Porifera Demospongiae Poecilosclerida Latrunculiidae Latrunculia



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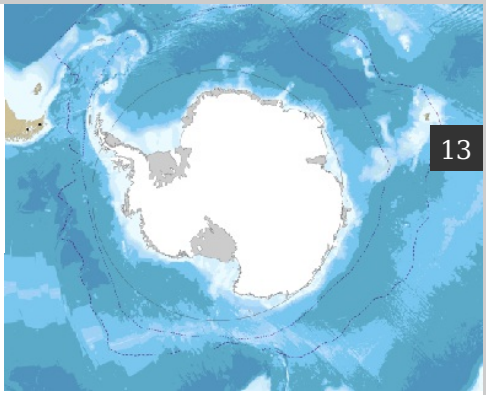
Scientific name

Lissodendoryx (Ectyodoryx) ramilobosa (Topsent, 1916)

Animalia Porifera Demospongiae Poecilosclerida Coelosphaeridae Lissodendoryx



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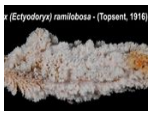
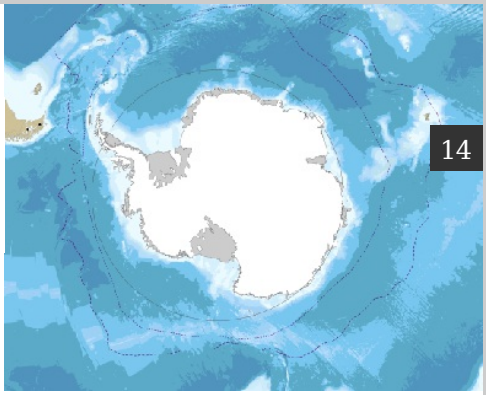


Scientific name

Clathria (Clathria) toxipraedita Topsent, 1913

Animalia Porifera Demospongiae Poecilosclerida Microcionidae Clathria



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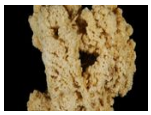
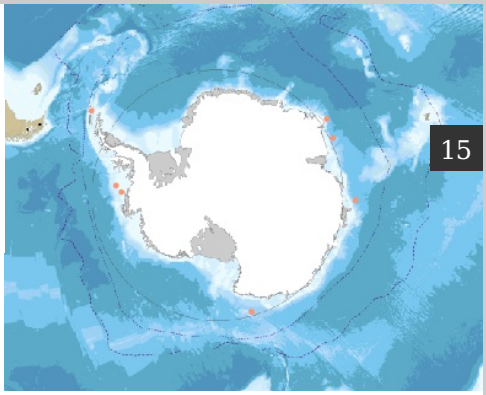


Scientific name

Asbestopluma belgicae (Topsent, 1901)

Animalia Porifera Demospongiae Poecilosclerida Cladorhizidae Asbestopluma



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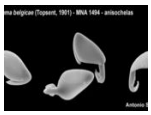
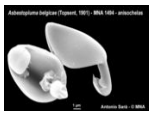
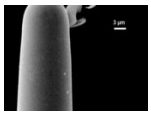
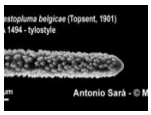
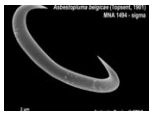
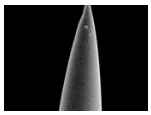
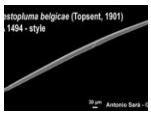
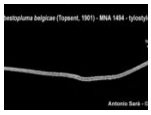
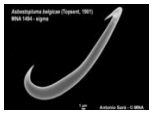




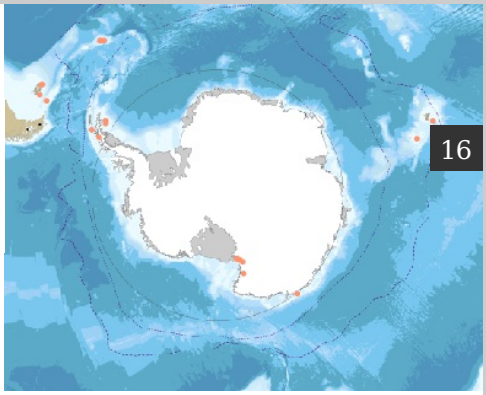




Scientific name

Dendrilla membranosa (Pallas, 1766)

Animalia Porifera Demospongiae Dendroceratida Darwinellidae Dendrilla



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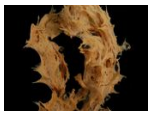
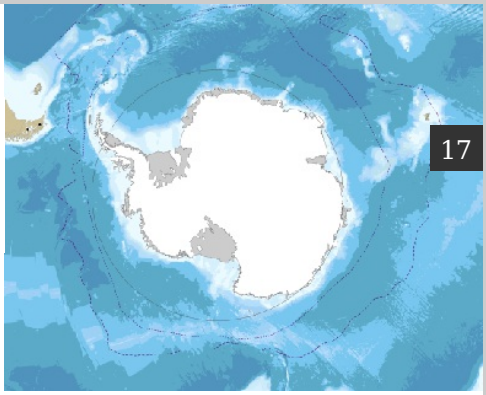


Scientific name

Mycale (Aegogropila) magellanica (Ridley, 1881)

Animalia Porifera Demospongiae Poecilosclerida Mycalidae Mycale

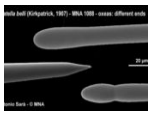
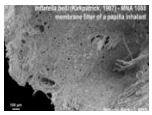


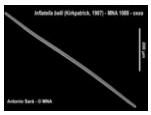
17

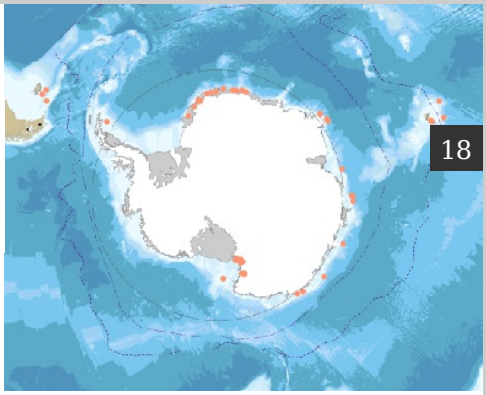
Scientific name

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.

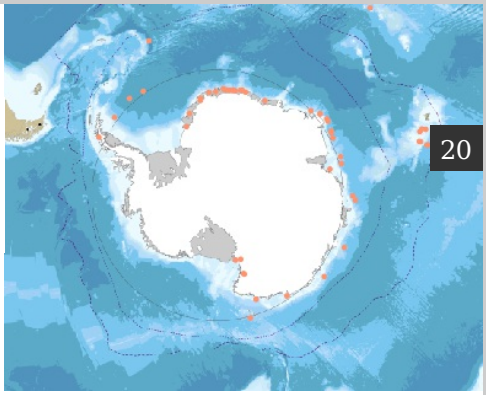
Ecology

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

Scientific name

Suberites caminatus Ridley & Dendy, 1886

Animalia Porifera Demospongiae Hadromerida Suberitidae Suberites

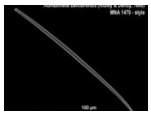
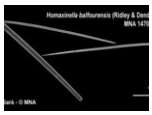
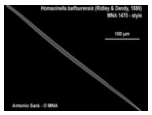


20

Scientific name

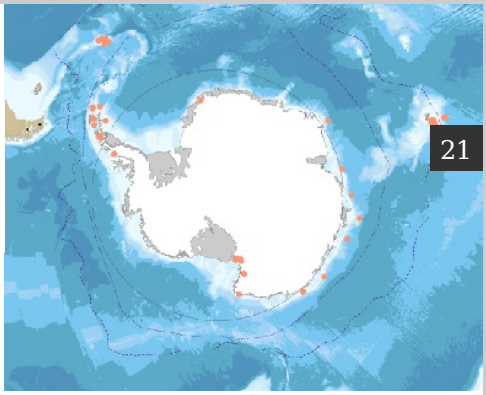
Homaxinella balfourensis (Ridley & Dendy, 1886)

Animalia Porifera Demospongiae Hadromerida Suberitidae Homaxinella





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

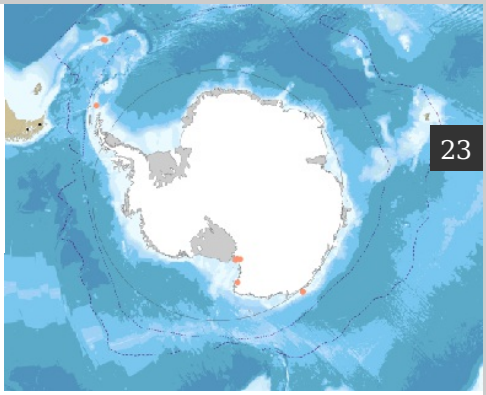
Ecology

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

Hemigellius fimbriatus (Kirkpatrick, 1907)

Animalia Porifera Demospongiae Haplosclerida Niphatidae Hemigellius



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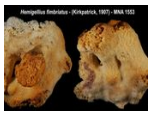
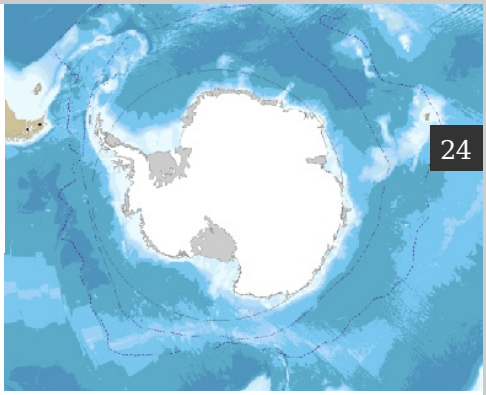


Scientific name

Pseudosuberites montiniger (Carter, 1880)

Animalia Porifera Demospongiae Hadromerida Suberitidae Pseudosuberites



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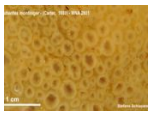
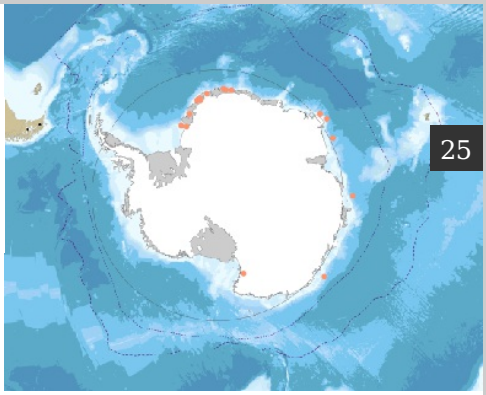


Scientific name

Pseudosuberites nudus Koltun, 1964

Animalia Porifera Demospongiae Hadromerida Suberitidae Pseudosuberites



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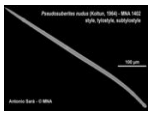
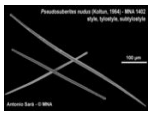
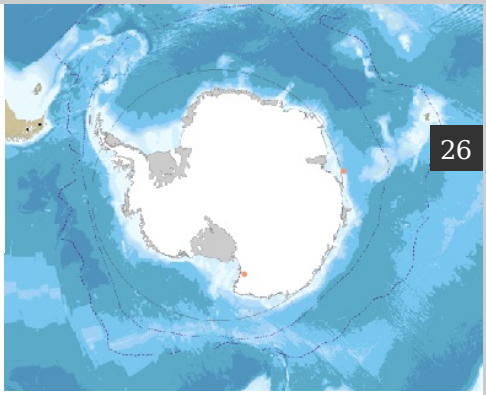




Scientific name

Tedania (Tedaniopsis) charcoti Topsent, 1907

Animalia Porifera Demospongiae Poecilosclerida Tedaniidae Tedania



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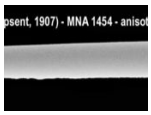
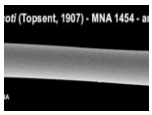
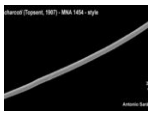
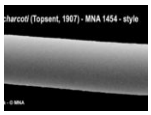
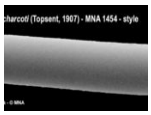
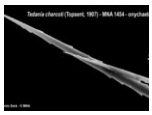
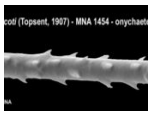
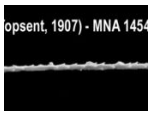


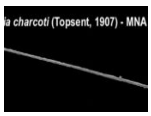


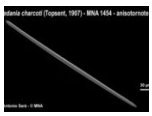



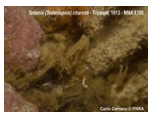


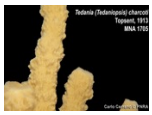









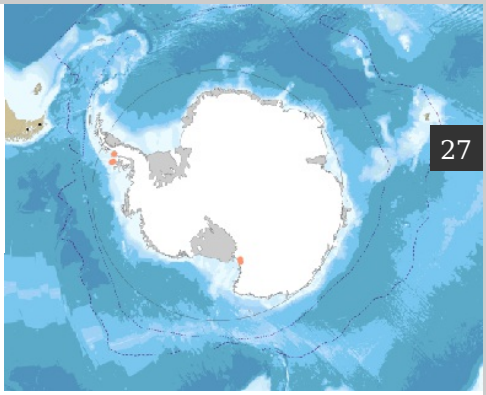




Scientific name

Microxina charcoti Topsent, 1916

Animalia Porifera Demospongiae Haplosclerida Niphatidae Microxina



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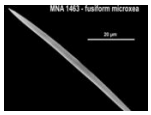
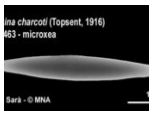
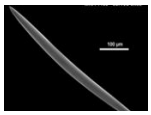


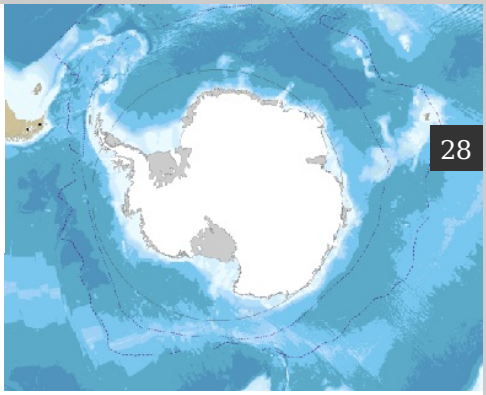




Scientific name

Clathria (Axosuberites) nidificata (Kirkpatrick, 1907)

Animalia Porifera Demospongiae Poecilosclerida Microcionidae Clathria



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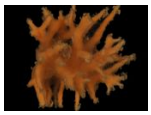
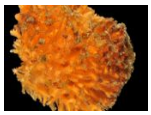
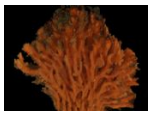
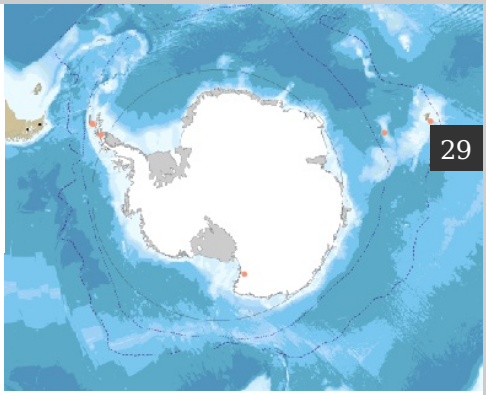




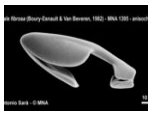
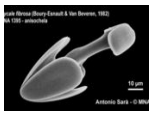
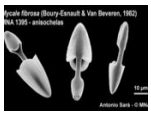
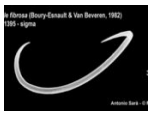


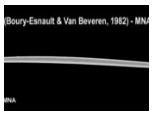
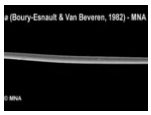
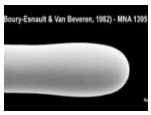
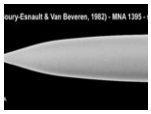


Scientific name

Mycale fibrosa Boury-Esnault & van Beveren, 1982

Animalia Porifera Demospongiae Poecilosclerida Mycalidae Mycale

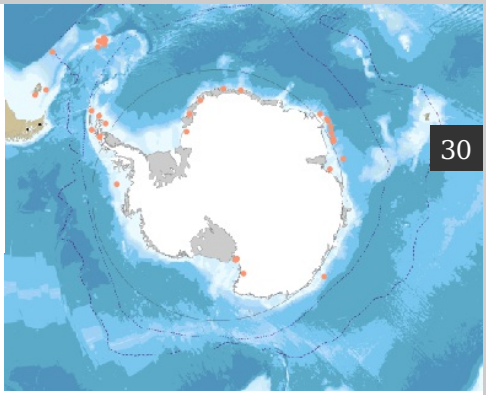





Scientific name

Microxina benedeni (Topsent, 1901)

Animalia Porifera Demospongiae Haplosclerida Niphatidae Microxina



Description

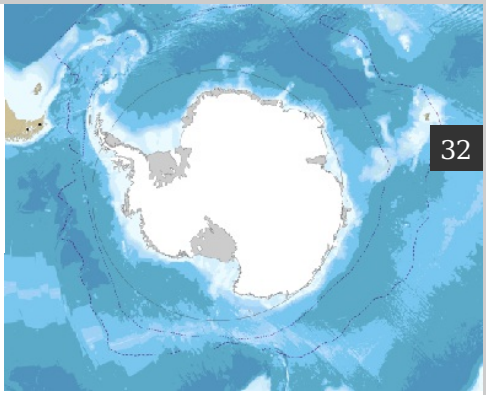
Identification is very difficult without expert knowledge. Microxina benedeni is usually white, orange or pink and irregularly shaped, growing up to 18cm high.

Distribution info

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

Ecology

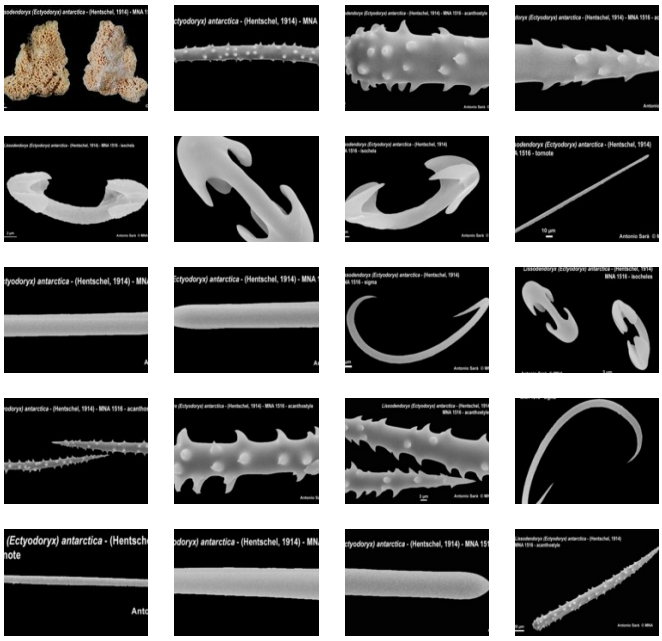
Microxina benedeni is a suspension feeder and contains diatoms living within its cells, but their role is unclear. Its predators include the dorid nudibranch Austrodoris kerguelenensis.



Scientific name

Lissodendoryx (Ectyodoryx) antarctica (Hentschel, 1914)

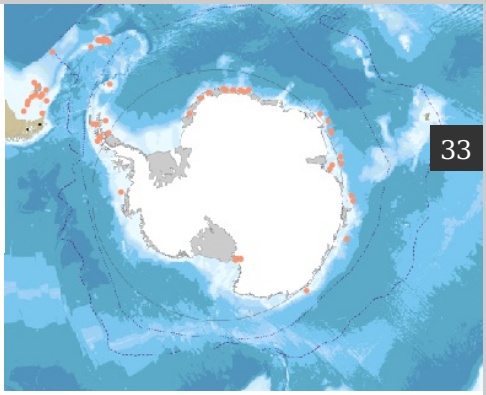
Animalia Porifera Demospongiae Poecilosclerida Coelosphaeridae Lissodendoryx



Scientific name

Isodictya setifera (Topsent, 1901)

Animalia Porifera Demospongiae Poecilosclerida Isodictyidae Isodictya



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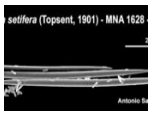
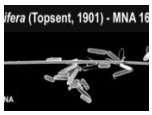
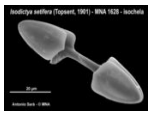
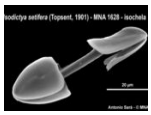
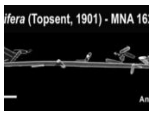






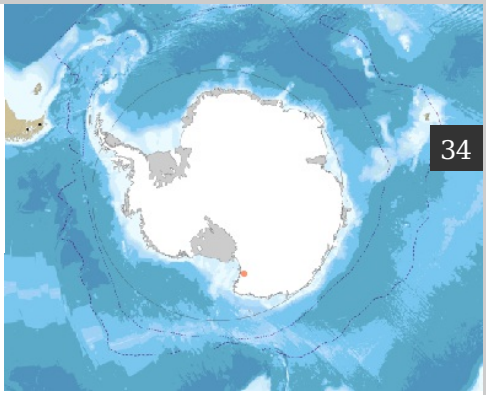




Scientific name

Isodictya conulosa (Ridley & Dendy, 1886)

Animalia Porifera Demospongiae Poecilosclerida Isodictyidae Isodictya



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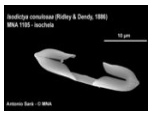
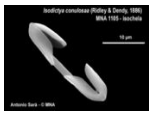
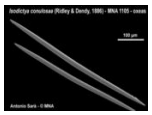
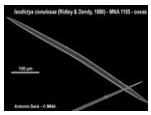
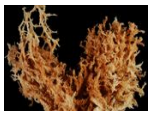






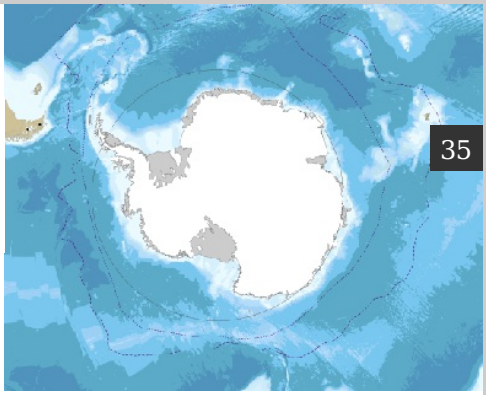




Scientific name

Haliclona (Rhizoniera) dancoi (Topsent, 1913)

Animalia Porifera Demospongiae Haplosclerida Chalinidae Haliclona

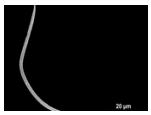
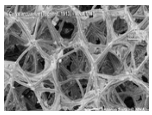
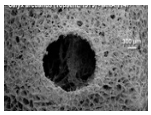
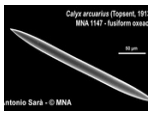


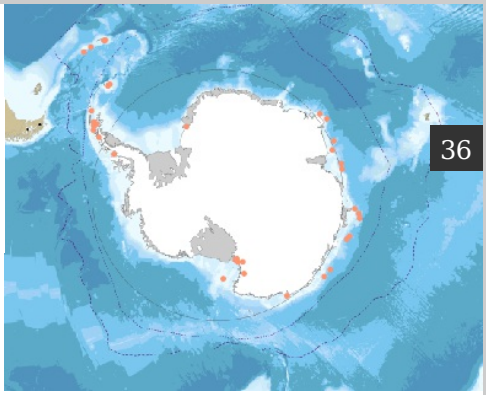
35

Scientific name

Calyx arcuarius (Topsent, 1913)

Animalia Porifera Demospongiae Haplosclerida Phloeodictyidae Calyx

Distribution info

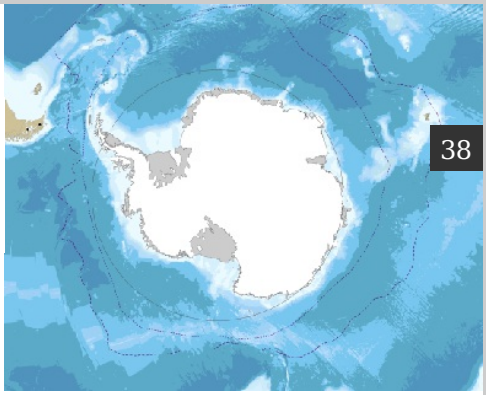
16 to 900m, from Sub-Antarctica to the Antarctic Peninsula and Continent

Description

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

Ecology

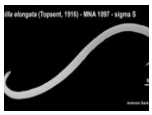
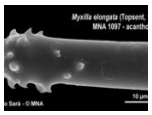
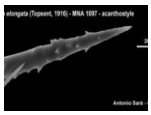
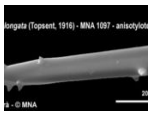
Calyx arcuarius is a suspension feeder. Its predators include the seastars Odontaster meridionalis and Acodontaster hodgsoni, and the dorid nudibranch Austrodoris kerguelenensis, although extracts from it have been shown to have antipredator and antibacterial effects.

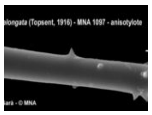
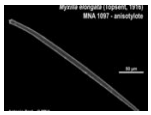
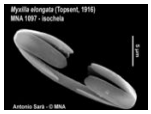


Scientific name

Myxilla (Myxilla) elongata Topsent, 1917

Animalia Porifera Demospongiae Poecilosclerida Myxillidae Myxilla

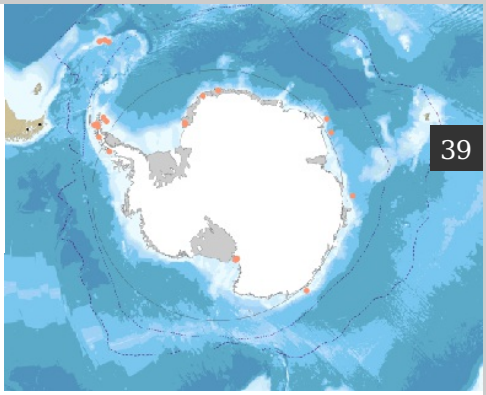







Scientific name

Kirkpatrickia variolosa (Kirkpatrick, 1907)

Animalia Porifera Demospongiae Poecilosclerida Hymedesmiidae Kirkpatrickia



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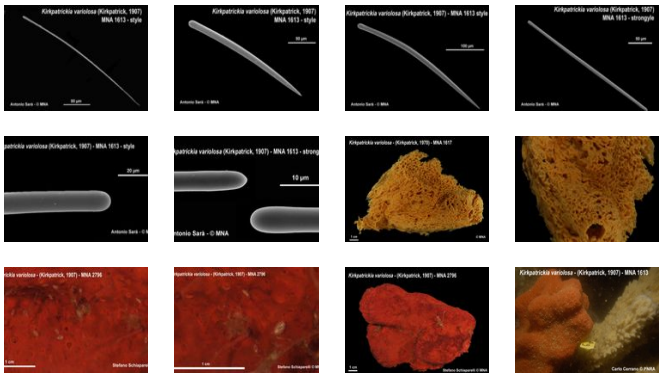


Distribution info

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

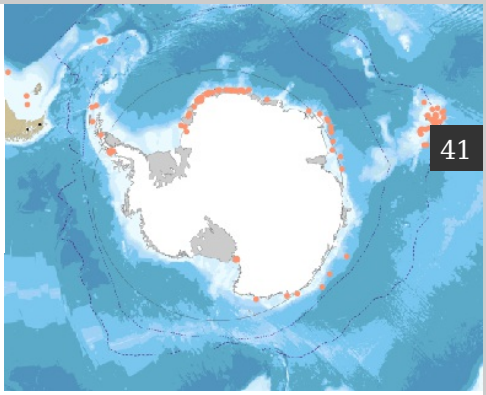
Ecology

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

Tetilla leptoderma Sollas, 1886

Animalia Porifera Demospongiae Spirophorida Tetillidae Tetilla



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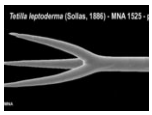
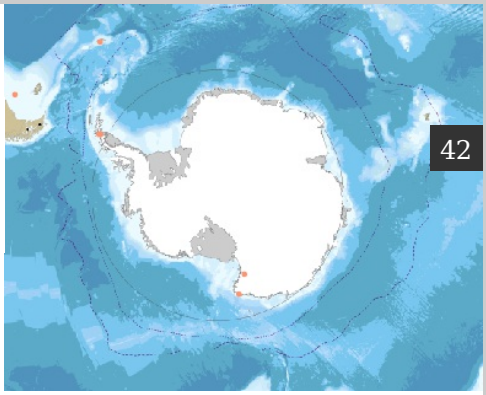


Scientific name

Haliclona penicillata (Topsent, 1908)

Animalia Porifera Demospongiae Haplosclerida Chalinidae Haliclona



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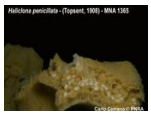
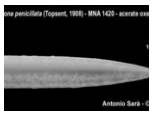
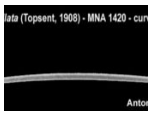
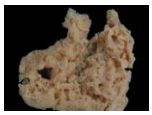




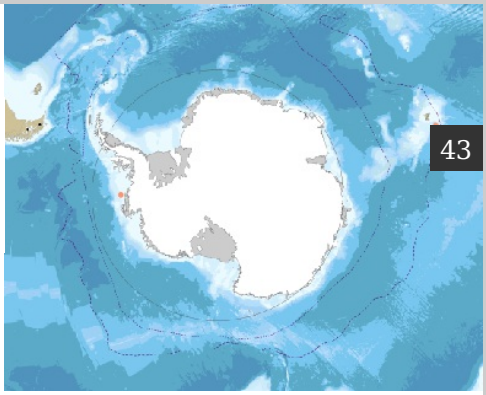



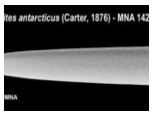


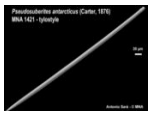
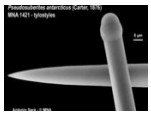
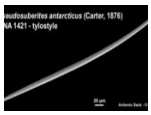
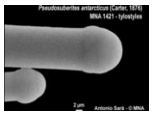
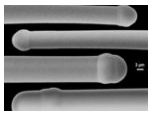
Scientific name

Pseudosuberites antarcticus (Carter, 1876)

Animalia Porifera Demospongiae Hadromerida Suberitidae Pseudosuberites



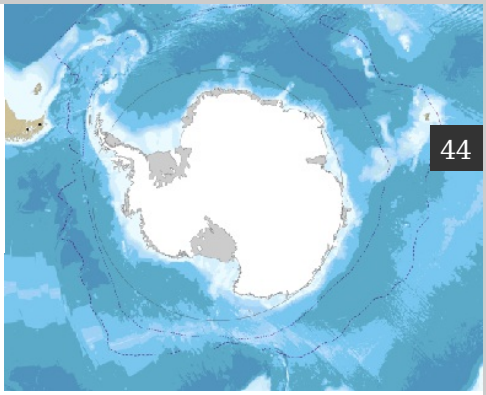



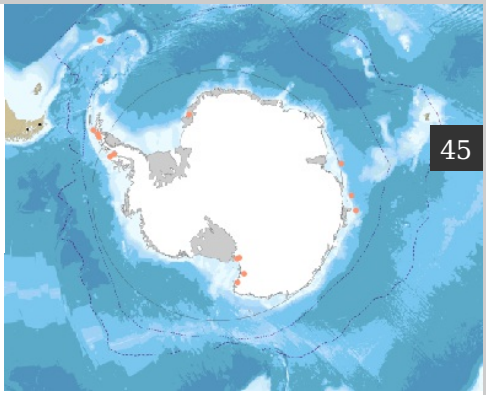






Scientific name

Tedania (Tedaniopsis) massa Ridley & Dendy, 1886

Animalia Porifera Demospongiae Poecilosclerida Tedaniidae Tedania





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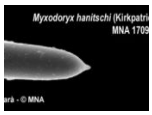
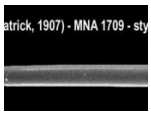
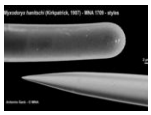
Scientific name

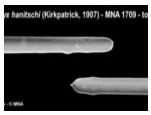
Myxodoryx hanitschi (Kirkpatrick, 1907)

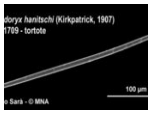
Animalia Porifera Demospongiae Poecilosclerida Hymedesmiidae Myxodoryx





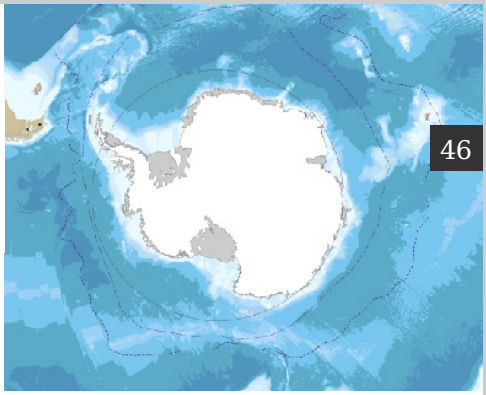





Scientific name

Myxilla (Myxilla) elongata Topsent, 1917

Animalia Porifera Demospongiae Poecilosclerida Myxillidae Myxilla



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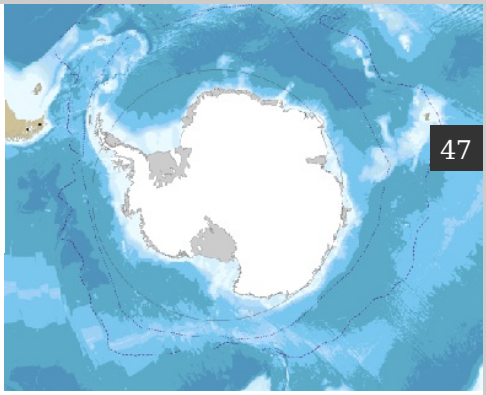
Scientific name

Tedania (Tedaniopsis) charcoti Topsent, 1908

Animalia Porifera Demospongiae Poecilosclerida Tedaniidae Tedania

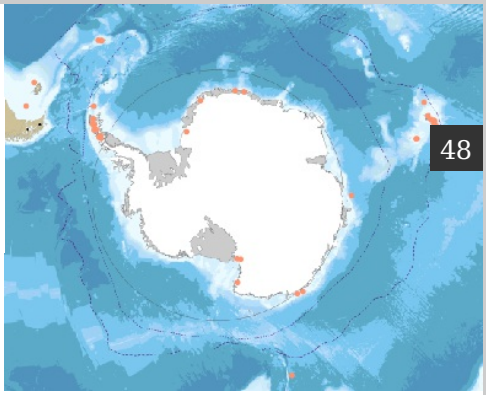


47

Scientific name

Isodictya kerguelenensis (Ridley & Dendy, 1886)

Animalia Porifera Demospongiae Poecilosclerida Isodictyidae Isodictya

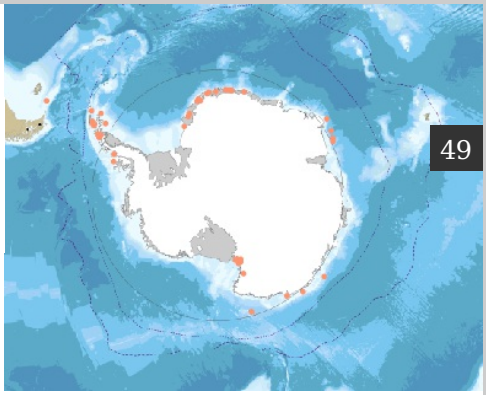


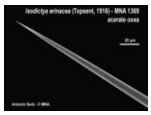
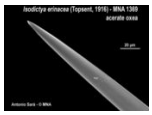
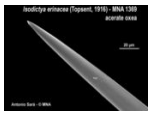
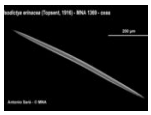
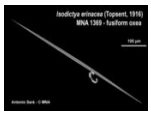
48

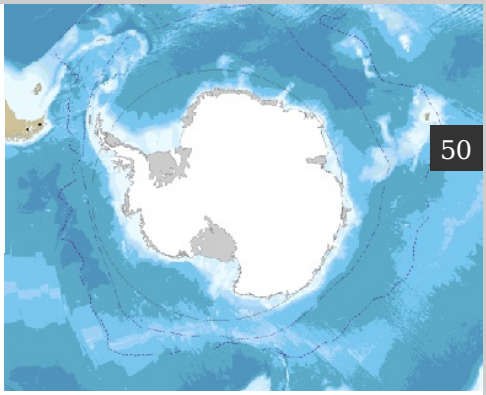
Scientific name

Isodictya erinacea (Topsent, 1916)

Animalia Porifera Demospongiae Poecilosclerida Isodictyidae Isodictya



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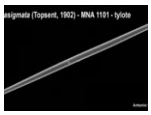
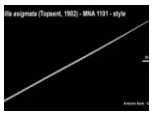
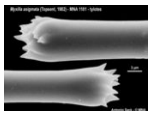
Scientific name

Myxilla (Myxilla) asigmata (Topsent, 1901)

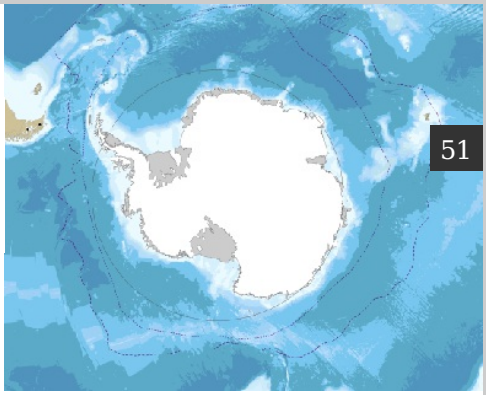
Animalia Porifera Demospongiae Poecilosclerida Myxillidae Myxilla

Scientific name

Iophon unicornis Topsent, 1907

Animalia Porifera Demospongiae Poecilosclerida Acarnidae Iophon



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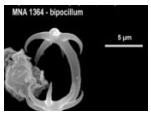
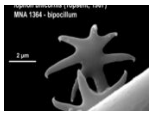
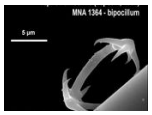
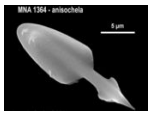
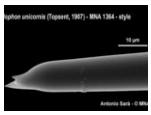
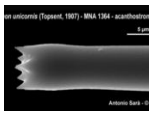
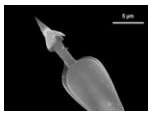
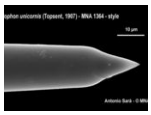
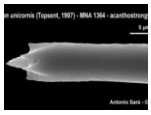
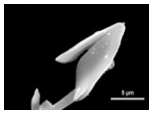






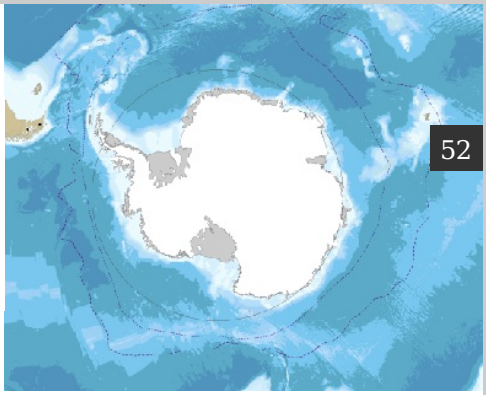


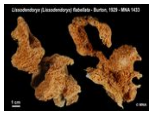







Scientific name

Lissodendoryx (Lissodendoryx) flabellata Burton, 1929

Animalia Porifera Demospongiae Poecilosclerida Coelosphaeridae Lissodendoryx

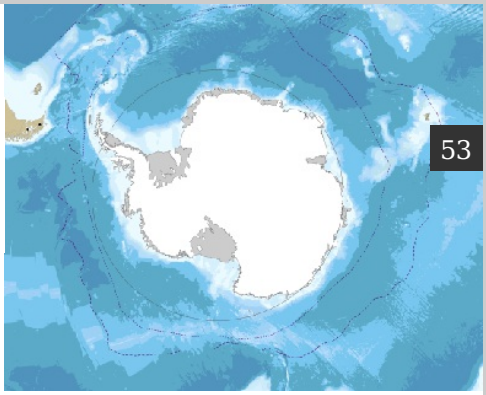




Scientific name

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

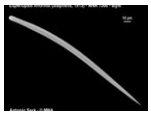
Ecology

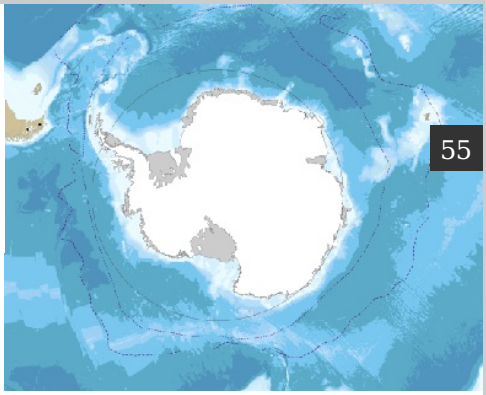
Haliclona tenella is a suspension feeder, and preyed on by the seastars Odontaster meridionalis and Acodontaster hodgsoni and by the dorid nudibranch Austrodoris kerguelenensis

Scientific name

Esperiopsis informis Stephens, 1915

Animalia Porifera Demospongiae Poecilosclerida Esperiopsidae Esperiopsis





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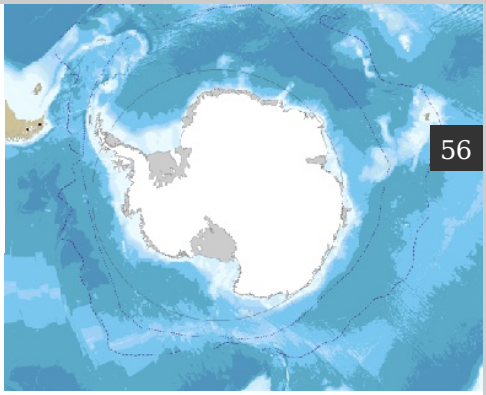
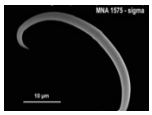
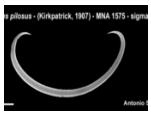
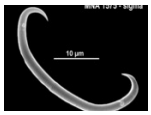
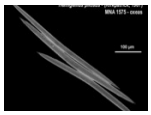
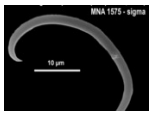


56

Scientific name

Hemigellius pilosus (Kirkpatrick, 1907)

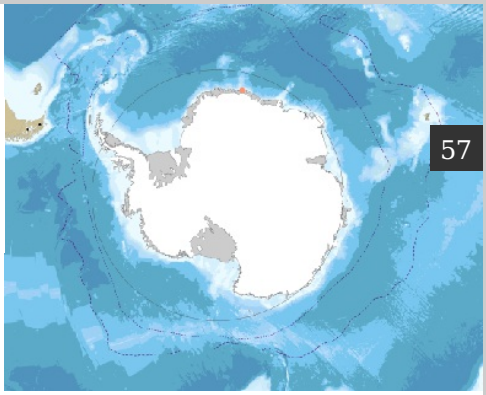
Animalia Porifera Demospongiae Haplosclerida Niphatidae Hemigellius

Scientific name

Homaxinella flagelliformis (Ridley & Dendy, 1886)

Animalia Porifera Demospongiae Hadromerida Suberitidae Homaxinella



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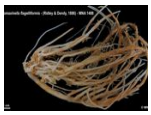
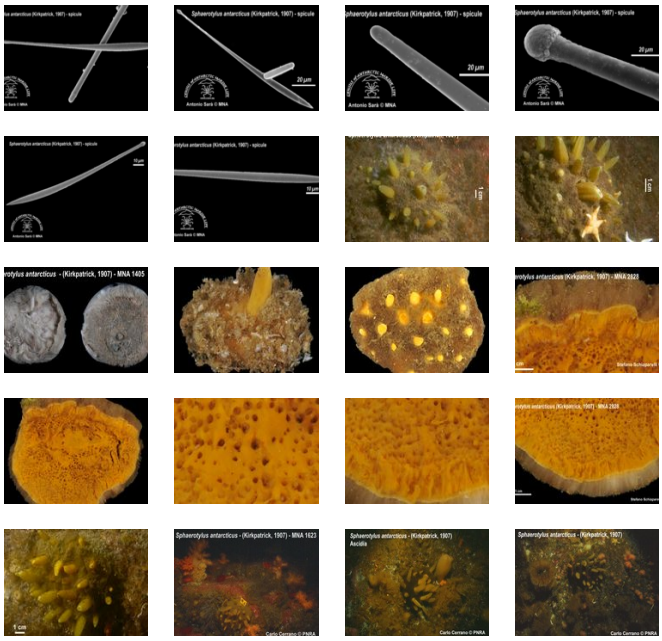
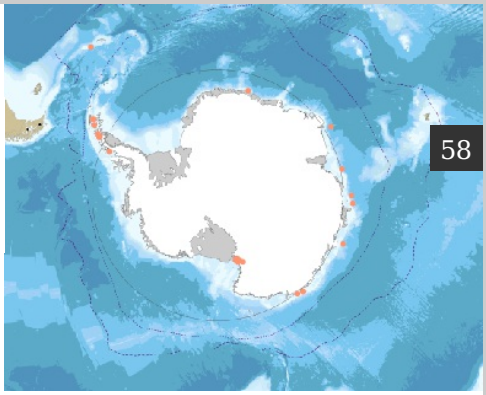


Scientific name

Sphaerotylus antarcticus Kirkpatrick, 1907

Animalia Porifera Demospongiae Hadromerida Polymastiidae Sphaerotylus





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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).

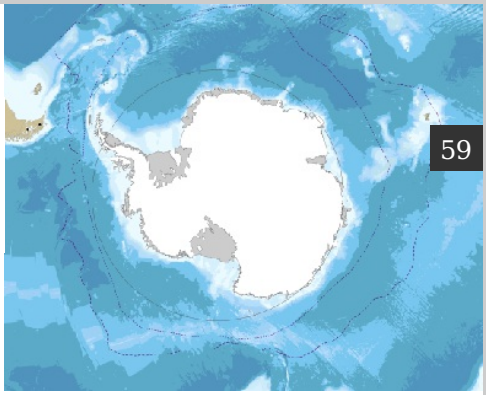
Description

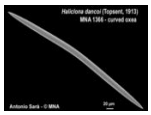
Original description by Kirkpatrick (1907):
Sponge dome-shaped or spheroidal, attached or free. Surface beset with a dense short pile of cortical microtyles; with several usually elongated papillae with or without a large terminal orifice. Dermal pores distributed over the cortex, each pore opening into 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.

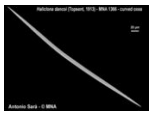
Scientific name

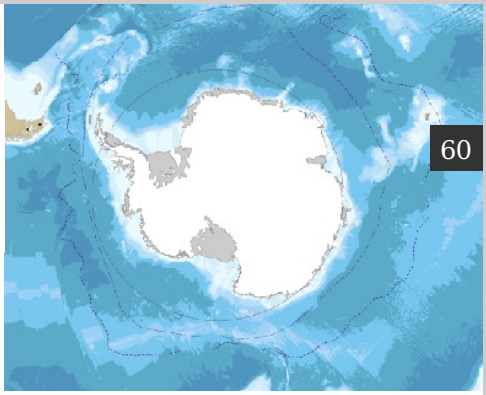
Haliclona dancoi (Topsent, 1913)

Animalia Porifera Demospongiae Haplosclerida Chalinidae Haliclona





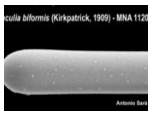
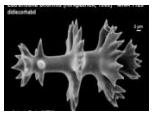
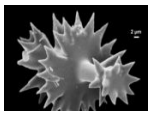




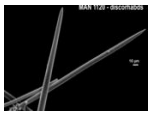
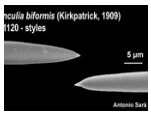
Scientific name

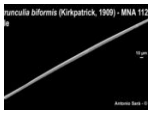
Latrunculia biformis Kirkpatrick, 1907

Animalia Porifera Demospongiae Poecilosclerida Latrunculiidae Latrunculia



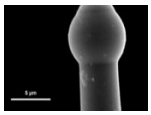
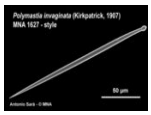
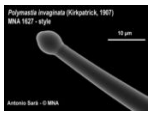
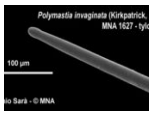
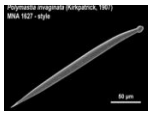


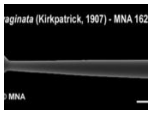
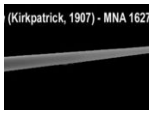
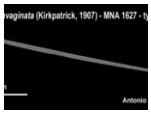
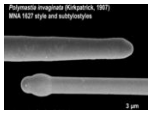
Scientific name

Polymastia invaginata Kirkpatrick, 1907

Animalia Porifera Demospongiae Hadromerida Polymastiidae Polymastia

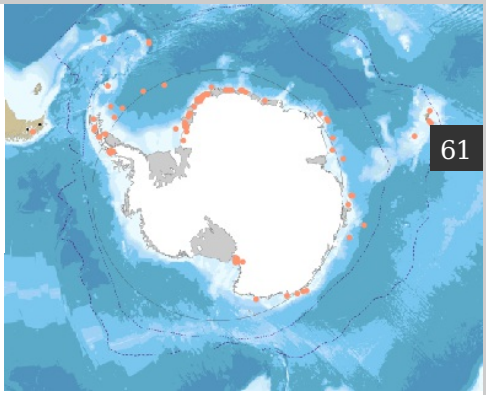



Description

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.



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.

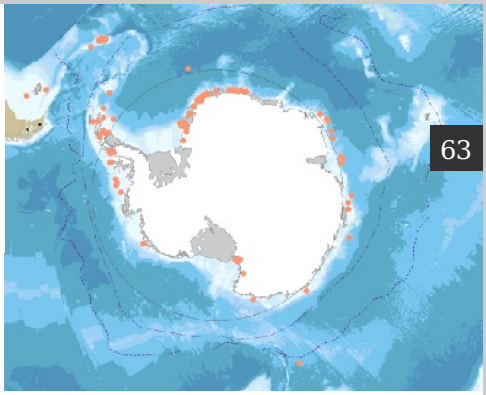
Ecology

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

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

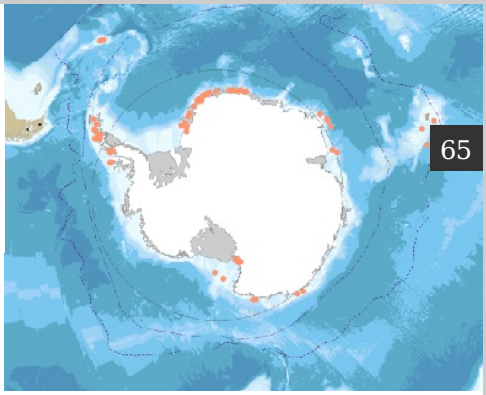
Ecology

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

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.