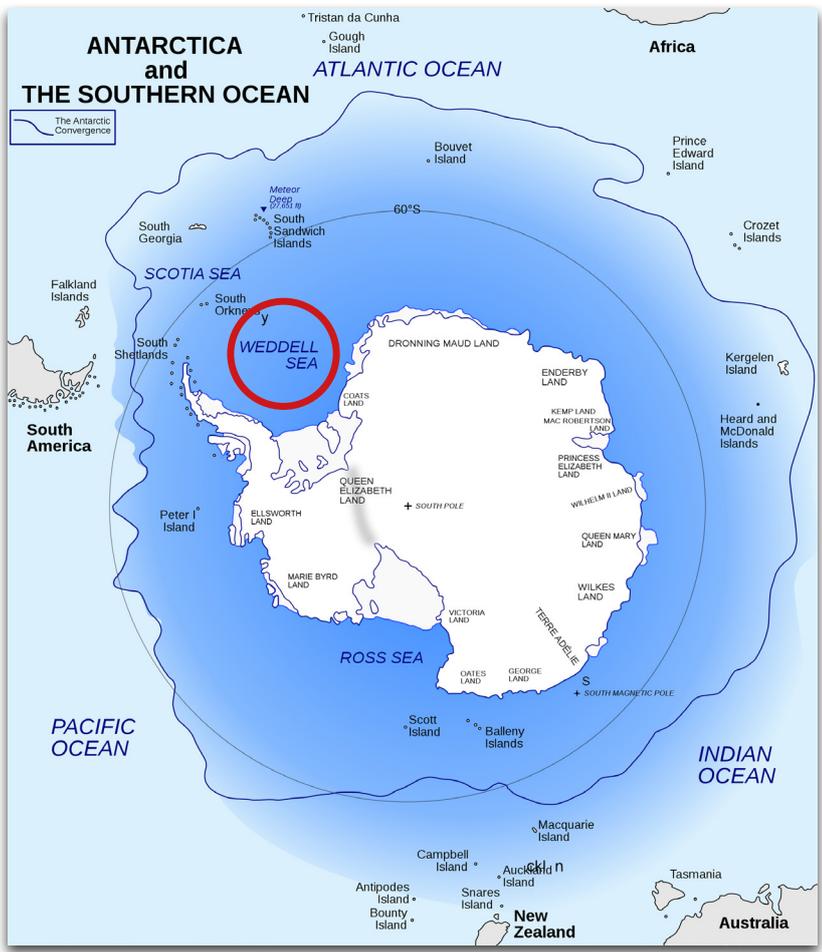


Antarctic Discovery: Life under the Ice Shelves

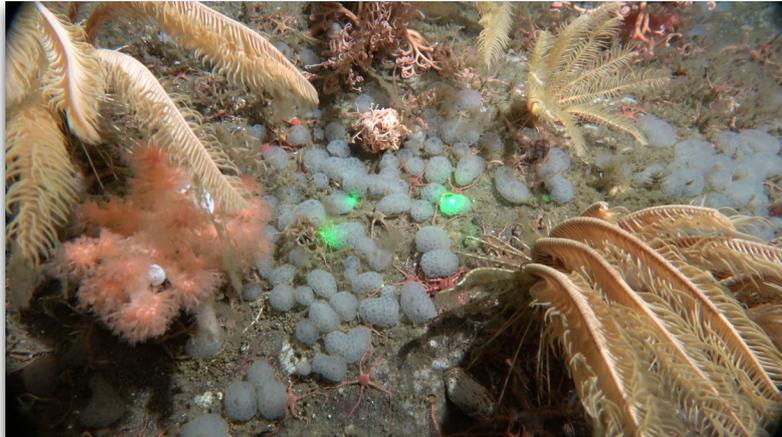
In February 2020, the surprising results of some scientific exploration under the Antarctic ice shelves of the Southern Ocean were reported. Geologists were drilling through the thick, floating ice shelves to reach the ground below the cold and dark waters, and it was here that they discovered life forms that nobody expected – including some species that are possibly new to science!

There are very few species that can survive in these extreme environments, but never before had animals like those found, such as sponges, ever been seen in areas such as this. In fact, it raises more questions than it answers for the scientists involved. These include:

- How did they get there?
- What are they eating?
- How long have they been there?
- How common are they?
- Are they new species or the same as those elsewhere?



Researchers drilled through 900m thick ice in the Weddell Sea before making their amazing discovery!



The small, white shapes above are an example of a species of cold water sponge. These were photographed in the north Atlantic by [ATLAS researchers](#)

You can watch this short video of Dr Huw Griffiths of the [British Antarctic Survey](#) talk about the discovery here!



To be able to find out more about these creatures and how they survive, researchers will first have to find a way to get closer to them. This isn't easy with so much ice in the way! It might also be a race against time if we want to find out more, because with climate change causing such huge changes to environments around the world, it might not be long before these remarkable species are lost forever.

Life Beyond Earth

Earth is the only place in the universe that we know life to exist, but studying how life survives in different extreme environments on Earth, such as below the ice of the Polar Regions, could help scientists in their search elsewhere. Astrobiologists are researchers who try to understand the science of where life might exist beyond Earth, and discoveries such as this one can help them in their quest. To find out more about the work of astrobiologists, check out these resources created for us by [AstrobiologyOU](#):

- [Astrobiology](#)
- [Astrobiology: Mars](#)
- [Astrobiology: Meet the Researchers](#)

Create your own creature of the extremes

Life comes in all shapes and sizes and new discoveries in the most extreme conditions of our planet are still able to surprise and 'wow' scientists! Just imagine how different life forms found on another planet might look!

Have a go at designing your own extreme life form and think up some answers to the following questions, including some of Dr Huw Griffiths':

- Where is it found?
- How did it get there?
- What does it eat?
- How common is it?

Share your creature creations with us on Facebook, Instagram or Twitter using #DynamicEarthOnline

