

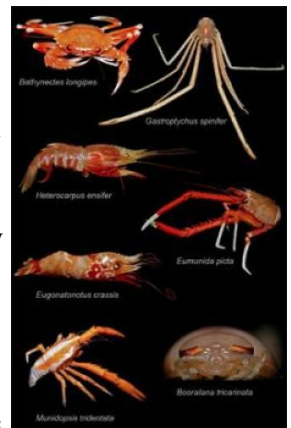
Friends of Penzance B.S.A.C.

Conservation Officer's Report

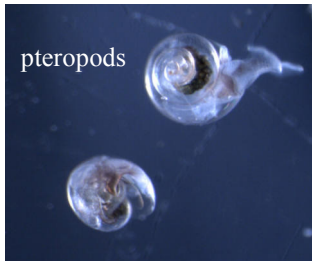
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Crabs living half-a-mile down in the ocean, beyond the reach of sunlight, have a sort of colour vision combining sensitivity to blue and ultraviolet light. Their detection of shorter wavelengths may give the crabs a way to ensure they grab food and not poison. A sort of colour-coding your food. It is thought that the animals are using their ultraviolet and blue-light sensitivity to sort out the likely toxic corals they're sitting on, which glow, or bioluminesce, blue-green and green, from the plankton they eat which glow blue. This discovery explains what some deep-sea animals use their eyes for and how their sensitivity to light shapes their interactions with their environment. Sometimes these discoveries can lead to novel and useful innovations like an X-ray telescope which was based on lobster eyes. To the right is a montage of some of the creatures tested for UV vision.



The shells of marine snails, known as pteropods, living in the seas around Antarctica are being dissolved by ocean acidification according to a new study. These tiny animals are a valuable food source for fish and birds and play an important role in the oceanic carbon cycle. During a science cruise in 2008, researchers from British Antarctic Survey (BAS) and the University of East Anglia (UEA) in collaboration with colleagues from the US Woods Hole Oceanographic Institute and the National Oceanic and Atmospheric Administration (NOAA), discovered severe dissolution of the shells of living pteropods in southern ocean waters. The team examined an area of upwelling, where winds cause cold water to be pushed upwards from the deep to the surface of the ocean. Upwelling water is usually more corrosive to a particular type of calcium carbonate (aragonite) that pteropods use to build their shells. The team found that as a result of the additional influence of ocean acidification, this corrosive water severely dissolved the shells of pteropods



Unlike the dramatic losses of sea ice reported in the Arctic, the Antarctic sea ice cover has increased under the effects of climate change. Scientists from British Arctic Survey (BAS) and NASA's Jet Propulsion Laboratory explain why. Maps created by JPL using over 5 million individual daily ice motion measurements captured over a period of 19 years by 4 US satellites show, for the first time, the long-term changes in sea ice drift around Antarctica. Until now these changes in ice drift were only speculated upon, using computer models of Antarctic winds. This study of direct satellite observations shows the complexity of climate change. The total Antarctic sea-ice cover is increasing slowly but individual regions are experiencing much larger gains and losses that are almost offsetting each other overall. Sea Ice plays a significant role in the global environment, reflecting heat from the sun and providing a habitat for marine life. At both poles sea ice cover is at its minimum during late summer. However, during the winter freeze in Antarctica this ice cover expands to an area roughly twice the size of Europe, ranging in thickness from less than a metre to several metres, the ice insulates the warm ocean from the frigid atmosphere above.



Bottlenose Dolphins were sighted 6 times during November from Newquay on the north coast to Bass Point near The Lizard on the south. A pod of 8 was seen in Mounts Bay on the 13th and the 14th. Nov. Only 2 sightings of Common Dolphins, a pod of about 5 near The Runnelstone and 4 at Bass Point. A pod of about 30 dolphins seen heading west off Rame Head, just west of Plymouth, on the 6th Nov. was probably also Commons. A single Risso's Dolphin was seen in Mounts Bay. Nine reported sightings of Harbour Porpoises were from Three Stone Oar, near Pendeen around to Mounts Bay, largest pod was of about 10 off Cape Cornwall on the 15th. 3 Basking Sharks were seen one off Pendeen, another in Mounts Bay and the last one off Nanquidno on the 7 November. One of the first of the month 3 large whales were seen breaching off the Lizard and on the last day of the month 3 White Beaked Dolphins were seen breaching near the Runnelstone