

Friends of Penzance B.S.A.C. Conservation Officer's Report August 2014

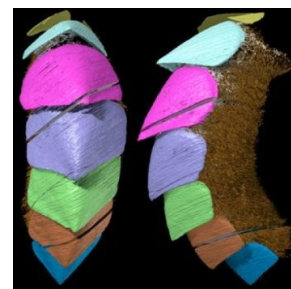
The Oceans absorb a large percent of the carbon dioxide (CO₂) emitted by human activities. Since the industrial revolution, they have taken up about half of the human-made CO₂. Billions of planktonic organisms, too tiny to be seen with the naked eye, make this valuable service possible. When carbon dioxide from the atmosphere dissolves in seawater, various species convert it to organic carbon and other organic compounds during photosynthesis. Jellyfish and pelagic tunicates live on smaller plankton and thus consume organic carbon. When they sink to the seafloor at the end of their life cycles, they take the carbon from the surface waters with them, provide it as food to organisms at the bottom or store it in deep water layers after decomposition. As a result, more CO₂ can be dissolved in the oceans. Additionally, calcifying organisms incorporate the inorganic carbon in their calcium carbonate shells directly. They also contribute to the biological pump.



For many years, zoos have used water moats to confine chimpanzees, gorillas or orangutans. When apes ventured into deep water, they often drowned. Some argued that this indicated a definite difference between humans and the apes; people enjoy the water and are able to learn to swim, while the apes prefer to stay on dry land. But it turns out that this distinction is not absolute. Two researchers have provided video-based observation of swimming and diving apes. Instead of the usual dog-paddle stroke used by most terrestrial mammals, these animals used a kind of breaststroke. The swimming strokes peculiar to humans and apes might be the result of an earlier adaptation to an arboreal life. The two researchers have studied a chimpanzee and an orang-utan that were raised and cared for by humans and have learned to swim and dive. They were surprised when the chimp dived repeatedly into the swimming pool and seemed to feel very comfortable.

Policymakers are attempting to contain global warming at less than 2°C. New estimates from a Norwegian project on climate calculations indicate this target may be more attainable than many experts feared. New estimates from the Norwegian project shows that Global Warming is less extreme than feared. After Earth's mean temperature climbed sharply through the 1990s, the increase has levelled off nearly completely at its 2000 level. Ocean warming also appears to have stabilised somewhat, despite the fact that CO₂ emissions and other anthropogenic factors thought to contribute to global warming are still on the rise. It is the focus on this post-2000 trend that sets the Norwegian researchers' calculations on global warming apart.

A fossil found in Great Britain may end a long-running debate about the mollusks, one of life's most diverse invertebrate groups. Which evolved first, shelled forms like clams and snails, or their shell-less, worm like relatives? The small new fossil, found in marine rocks along the English-Welsh border, provides the best fossil evidence yet that the simpler worm-like mollusks evolved from their more anatomically complex shelled brethren. rather than the other way round. This discovery reinforces previous findings from molecular sequencing studies and helps clarify the evolutionary relationships of mollusks, a broad category that includes not only oysters and mussels but also slugs, squids and octopuses. This is a kind of missing link with a wormlike body, bearing a series of shells like those of a chiton or coat-of-mail shell.



There were 6 reported sightings of Bottlenose Dolphins during August, They were seen in pod sizes from 7 to 20 animals, from Pendeen on the north coast to Fal Bay. Twelve reported sightings of Common Dolphins were mainly from Mounts Bay and Fal Bay but also from a pelagic trip from Penzance to Wolf Rock and back. Seven reports of Risso's Dolphins were of small pods from 1 to 6 animals seen in Fal Bay, Mounts Bay and near Bishops Rock Lighthouse, Scilly Isles. Sightings of Harbour Porpoises were coming in almost daily, there were 40 sightings and some of them were in large numbers, with pods of up to 50. The 26 reported sightings of Ocean Sunfish were mainly of single fish but 5 were seen together off Pendeen. Seven reported sightings of Minke whales were of single animals. A Sei Whale, one of the worlds biggest, was seen in Mounts Bay on the 20th August. There was only one Basking Shark seen, that was off Porthgwarra on the 12th. A Leatherback Turtle was seen in Mounts Bay on the 16th. and Blue Sharks were seen in Fal Bay on two different days. There are still some Barrel Jellyfish around as well as other types of Jellyfish such as Compass, Moon and Cyanea lamarckii.

