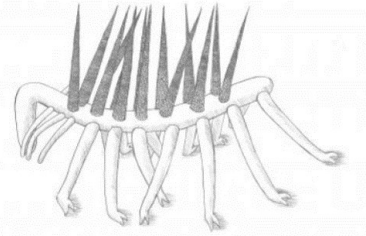


Friends of Penzance B.S.A.C. Conservation Officer's Report September 2014

One of the most bizarre-looking fossils ever found, a worm like creature with legs, spikes and a head difficult to distinguish from its tail— has found its place in the evolutionary Tree of Life, definitively linking with a group of modern animals for the first time. The animal, known as *Hallucigenia* due to its otherworldly appearance, had been considered an “evolutionary misfit” as it was not clear how it related to modern animal groups. Researchers from the University of Cambridge have discovered an important link with modern velvet worms, also known as onychophorans, a relatively small group of worm-like animals that live in tropical forests. Early interpretations of *Hallucigenia*, which was first identified in 1970 placed it both backwards and upside down. The spines along the creatures back were originally thought to be its legs, its legs were thought to be tentacles along its back, and its head was mistaken for its tail. *Hallucigenia* lived approximately 505 million years ago during the Cambrian Explosion, a period of rapid evolution when most animal groups first appeared in the fossil record. These particular fossils came from the Burgess Shale in the Canadian Rocky Mountains, one of the richest Cambrian fossil deposits in the world.



New fossils found in Argentina represent the most complete giant sauropod dinosaur ever discovered. Scientists say they have 70% of the key bones needed to fully describe the creature, *Dreadnoughtus schrani*. It means they can confidently estimate its great bulk—a beast that measured 26 metres from head to tail and weighed in at almost 60 tonnes. Remarkably, the skeletal analysis reveals that the creature was still growing at the time of its death. Quite how large the dino might have become, no one can say. The Patagonian rocks from which it was pulled suggests that the young animal's life was cut short in a catastrophic flood. The dinosaur's enormous size would have been intimidating, and for that reason was given the name that recalls the massive battleships that revolutionised naval warfare in the early 1900s. *Dreadnoughtus* was huge, and in its environment there would have been nothing that could have preyed on it. It was essentially impervious to attack so what better name “dread naught” fears nothing.

A new study of satellite data from the last 19 years reveals that fresh water from melting glaciers has caused the sea level around the coast of Antarctica to rise by 2cm more than the global average of 6cm. Researchers detected the rapid rise in sea level by studying satellite scans of a region that spans more than a million square kilometres. The melting of the Antarctic ice sheet and the thinning of floating ice shelves has contributed an excess of around 360 gigatonnes of freshwater to the surrounding ocean.



There were 8 reported sightings of Bottlenose Dolphins during September, from Mounts Bay and Fal Bay, and again pod sizes higher than usual, with pods of 40 and 60 or more seen. 15 sightings of Common Dolphins were from Carn Glouce around Lands End to Mounts Bay and Fal Bay with several pods of 40 to 110 or more seen. Also a pod of over 500 or more seen from the Scillonian on her trip to the Isles. Eight reported sightings of Risso's Dolphins were all from Cape Cornwall to Mounts Bay except one sighting of 5 off Pentire Head on the 6th. Largest pod seen was of 16. Harbour Porpoises were reported 35 times from The Brisons around to Mounts and Fal Bays, with pods of 40 to 50 or more seen, and also a pod of 300 or more seen from the Scillonian. 10 Minke Whale sightings were mainly of single animals but 9 were seen in Fal Bay on the 5th and 4 still there on the 6th. Two Pilot Whale sightings were of one in Fal Bay and a pod of 12 off Nanjulian on the 13th. Only 1 Basking Shark was seen, that was off Plymouth on the 7th. Ocean Sunfish were reported 6 times from Mounts and Fal Bays and one off Carrick du near St. Ives. 23 reported sightings of Grey Seals were mainly from Mounts and Fal Bays, some in the water but mostly hauled out on rocks. Barrel Jellyfish are still around but only 3 were reported. A Compass Jellyfish was also seen. There were also 3 reports of unidentified Cetaceans.