

# Penzance B.S.A.C. Conservation Officer's Report November 2008

Twenty ships were involved in an intensive military exercise off the Cornish coast just days before the mass stranding of dolphins this summer, it has been confirmed. A request to the MoD under the Freedom of Information Act has now revealed that a substantial exercise involving 20 Royal Navy ships and submarines, as well as vessels from foreign Navies, was being conducted in the area in the days leading up to the strandings. The MoD confirmed that sonar "dipper" devices were used seven times by Merlin and Lynx helicopter crews in the week before the incident. The mid-frequency sonar used, which is just beyond the range of human hearing, but at 2—4 kilohertz is in the range of Common Dolphin hearing, and has been associated with strandings of marine life in the past. The MoD also revealed that inert 4.5 inch shells were being fired, as well as Sea Wolf Missiles and machine guns. Experts believe that if a number of ships were echo sounding and making so much noise it could have had a herding effect on the animals, causing confusion and herding the dolphins ashore.

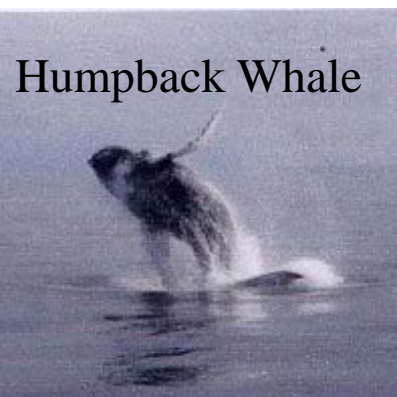
The teeth and bones of mammals, the protective shells of mollusks, and the needle sharp spines of sea urchins and other marine creatures are made from scratch wonders of nature. They are used to crush food, for structural support, and defence. The materials of which teeth, shells and bones are composed are the strongest and most durable in the animal world, and scientists and engineers have long sought to mimic them. Now harnessing the process of biomineralization may be closer to reality as an international team of scientists has detailed a key, and previously hidden mechanism to transform amorphous calcium carbonate into calcite, the stuff of seashells. The new insight promises to inform the development of new superhard materials, microelectronics and micromechanical devices.



Sea Urchin

Researchers are using sea urchins to study and understand diseases like cancer, Alzheimer's disease, Parkinson's disease and muscular dystrophy. Although they are invertebrates, the creatures share a common ancestor with humans and have more than 7000 of the same genes. With a complete map of their DNA, scientists can learn how to treat and prevent diseases in humans better.

There were 8 reported sightings of Bottlenose Dolphins during October, The south coast pod in the Carrick Roads and Fal Bay on different days, a sighting off The Brisons and one off the Wave Hub a few miles north of St Ives. The other four sightings were off Gwennap Head with one outstanding day when over 40 were seen. These were the local pod of 7, and Cookies trio in the bay, and a pod of over 30 offshore. Only 2 sightings of Common Dolphins, but one of them was of a super pod of over 300 near The Sevenstones reef on the 14th. A single Risso's Dolphin was seen off St. Ives on the 1st of the month. Of the 16 reported sightings of Harbour Porpoises, 12 were off Gwennap Head, other sightings were off The Longships, The Lizard, The Brisons and The Runnelstone. Minke Whales were reported 5 times, all off Gwennap Head and 2 Pilot Whales were seen near the Wave Hub on the 17th. On the last day of the month a 20 ft whale with a small dorsal was seen heading east off The St Ives NCI Lookout, This was probably another Minke Whale. 19 reported sightings of Basking Sharks were all between The Brisons and Merthen Point, just west of St. Loy Cove, and 12 of them were off Gwennap Head. Grey Seals were reported 16 times, they were seen at Pendeen and Gull Rock near Nare Head, and all the other reports were from Gwennap Head, which seems to be the place to watch from if you hope to see marine life. It can however be more exciting further offshore, for on August 22nd a Humpback Whale was breaching alongside a boat for ½ an hour, 3 miles south east of Cadgwith.



Humpback Whale

Photo. Ross Newham

Perhaps we will be lucky enough to see more of these large whales, for as well as the one seen off The Scilly Isles in September there was another possible sighting of one off Cape Cornwall during the summer.