

# Penzance B.S.A.C. Conservation Officer's Report February 2011



Amphipod  
*Themisto libellula*

For the last three years the Bering Sea has been the coldest on record. A University of Alaska Fairbanks scientist says that the cold temperatures have helped produce larger zooplankton. The scientist and his colleagues have spent the last three years gathering zooplankton samples and looking at how changes in temperature have affected resident zooplankton and in turn how those zooplankton shifts may affect the diet of fish like Walleye Pollock. During colder years like the last three, Pollock tend to eat the larger plankton like copepods and krill, which flourish in chillier temperatures. The scientists also found that the recent cold temperatures have brought an Arctic "sand flea", the amphipod *Themisto libellula* south into the Bering Sea waters. Young Salmon and Pollock seem to prefer to eat these amphipods over other, smaller zooplankton.

Paleontologists have recently found a well preserved skull and partial skeleton of a bizarre reptile which challenges the notion of Crocodiles as "Living Fossils". *Simosuchus clarki* has a blunt pug-nosed snout, pudgy body and a short tail. These anatomical adaptations have led to the discovery of an incredibly diverse group of reptiles called notosuchian crocodyliforms which are brilliantly illustrated in a new book, Memoir of the Society of Vertebrate Paleontology, This richly illustrated volume clearly dispels the notion that crocodiles are static, unchanging "living fossils". *Simosuchus* lived in Madagascar at the end of the age of dinosaurs, (about 66 million years ago), had a blunt snout, leaf shaped teeth, and a short, tank like body, and was covered in a suit of bony armour.



*Simosuchus clarki*

Massive swarms of stinging jellyfish and jellyfish-like animals are transforming many world-class fisheries and tourist destinations into veritable jellytatoriums that are intermittently jammed with pulsating, gelatinous creatures. Massive swarms, some of which cover hundreds of square miles, have caused injuries and even occasional deaths, and have caused serious damage to fisheries, fish farms, marine mines, desalination plants, ships, and nuclear power plants. Since the 1980s jellyfish swarms have cost the world's fishing and tourism industries alone,



Jelly Hell

hundreds of millions of dollars and perhaps even billions of dollars. Human activities have been suggested by media reports and scientists as possible causes, including pollution, climate change, introduction of non-native species, and over fishing. But which of these, if any, are really to blame? Surprising insights about the causes are revealed in a new online multi-media report by The National Science Foundation. Titled 'Jellyfish Gone Wild' the report is available at [http://www.nsf.gov/news/special\\_reports/jellyfish/index.jsp](http://www.nsf.gov/news/special_reports/jellyfish/index.jsp). During the summer of 2005 about 500 million *Nomurai* jellyfish — each weighing up to 450 pounds—floated into the Sea of Japan every day. As a result, Japanese fishermen suffered tens of millions of dollars in losses.

There were 3 reported sightings of Bottlenose Dolphins during January and also one sighting of unidentified dolphins off Skilly Beach on the 14th, these were probably also Bottlenose, because two other reports during the middle of the month were in Mounts Bay off Cudden Point and Battery Rocks. The other report was of three pairs of Bottlenose surfing with Human surfers at Penhale Sands on the 30th of the month. Two reports of Common Dolphins were of the same pod heading east off Gwennap Head and later in the day on the 31st heading west off Porthgwarra. The only report of Risso's Dolphins was of a pod of 6 off Porthgwarra on the 20th. By far the largest number of reports were of Harbour Porpoises, with 14 reported sightings, all between Marazion Station and The Brisons off Cape Cornwall. The largest number in one area was 9 near the Runnelstone on the 31st of the month. A whale was seen off Prussia Cove on the 23rd, and described as having no dorsal fin with a blunt nose, so probably a Sperm Whale.