

Penzance B.S.A.C.

Conservation Officer's Report,

August 2011

There have been instances in Earth's history when average temperatures have changed rapidly, as much as 10 degrees Celsius (18 degrees Fahrenheit) over a few decades, and some have speculated the same could happen again as the atmosphere becomes overloaded with carbon dioxide. New research lends support to evidence from numerous recent studies that suggest that abrupt climate change appears to be the result of alterations in ocean circulation uniquely associated with ice ages, and that atmospheric Carbon Dioxide build up is unlikely to spark abrupt climate change. 'There might be other mechanisms by which greenhouse gases may cause an abrupt climate change but we know of no such mechanism from the geological record' said David Battisti, a University of Washington atmospheric Science professor.

A new study by top global fisheries experts present an alarming assessment of several economically important fish populations. The analysis of 61 species of **Scombrids** which include tunas, bonitos, mackerels and Spanish mackerels, and **Billfishes** which include swordfish and marlin, classified seven as threatened with extinction, and four as 'near threatened' for the IUCN Red List of Threatened Species. Researchers of the Cooperative Institute for Marine and Atmospheric Studies (CIMAS) and University of Miami School of Marine and Atmospheric Science have studied highly migratory tuna and billfish for more than 12 years and say that the IUCN assessments provide a very different view of the conservation status of marine resources, when compared to that provided by fishery management organisations.



Bonito

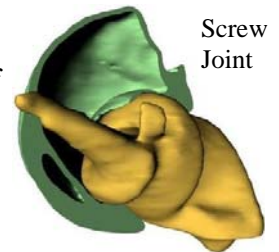


Blue Marlin

In nature hips and shoulders usually are based on ball-and-socket systems or hinges that can be operated easily by organisms. Screws and nuts are known from engineering and used for the fixed connection of components. Recently it has been found that nature was first in inventing screws and nuts for it was discovered that the hip of the Weevil *Trigonopterus oblongus* does not consist of the usual hinge, but of joints based on the screw-and-nut system. This first biological screw thread is about 1/2 a millimetre in size and was studied in detail using synchrotron radiation. Such a construction for animal leg movement is quite unusual, but researchers have studied other weevil species and have always found screw joints. and consider that this type of joint exists in all weevils, of which over 50,000 species exist worldwide. As a rule, weevils are clumsier than many other beetles, but transformation of a hinge joint into a screw joint allowed them to move their legs further down which made them better climbers. Weevils have been using this construction for about 100 million years.



Trigonopterus



Screw Joint

There were 12 reported sightings of Bottlenose Dolphin during July, 4 were of the same pod of 12 off St. Ives, The Towans, Gwithian and Portreath. Pods of 20 or more were seen in Fal Bay and Mounts Bay and smaller pods were seen in Sennen, Polzeath and Portreath. 20 sightings of Common Dolphins were all around Penwith except for one, of a pod of 15 off The Rumps near Padstow. One pod in Mounts Bay was reported as have hundreds of animals. and was featured on TV. There was a sighting of 2 Whitebeaked Dolphins off Lands End and a pod of 8 unidentified dolphins off Clodgy Point. Two reports of Risso's Dolphins were both off Gwennap Head. There were 35 reports of Harbour Porpoises, all around Penwith, with the largest group in one area 35 off Gwennap Head on the 28th. 6 Reports of Minke Whales were of singles except for two seen off Gwennap Head on the 27th and three seen there on the 30th. An unidentified whale was seen off Porthtowan. There were three reported sightings of a Humpback Whale which was entangled in ropes. First seen of St Ives where a team of BDMLR in their RIB tried and nearly succeeded to free it of the ropes, but had to abandon the attempt when it became too dark. The following days it was seen off Clodgy Point and Zennor but BDMLR were unable to find it. There were 19 reported sightings of Ocean Sunfish, again all around Penwith. Single Basking Shark, were reported off The Brisons, Pendeen, Sennen and St Ives, 2 were seen off Porthcurno on the 9th, and 3 off Gamper Bay on the 6th and 3 off Gwennap Head on the 30th. Grey Seal were reported 17 times, largest group 13