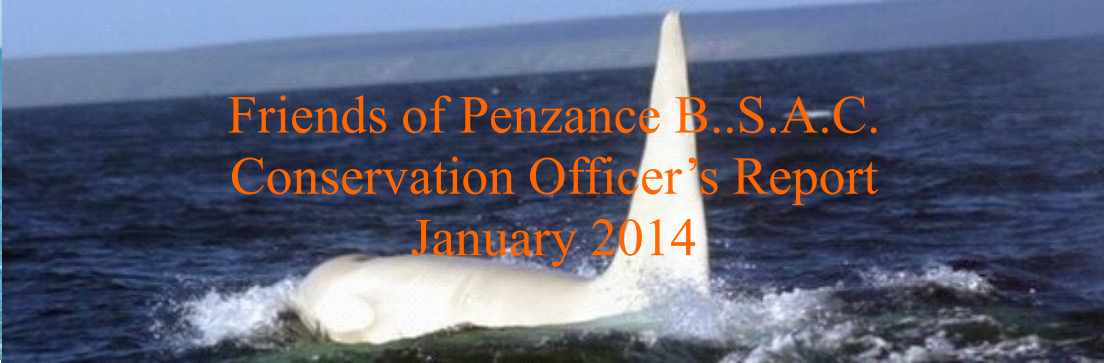


Friends of Penzance B..S.A.C. Conservation Officer's Report January 2014



In 2013 researchers at California Academy of Sciences discovered 91 new plant and animal species and two new genera, enriching our understanding of the complex web of life on Earth and strengthening our ability to make informed conservation decisions. The new species, previously unknown to science, include 38 different ants, 12 fishes, 14 plants, 8 beetles, 2 spiders, one reptile and one amphibian. In addition, Academy scientists discovered a new genus of beetle and a previously unidentified genus of sea fan. More than a dozen Academy scientists along with several dozen international collaborators described the newly discovered plants and animals. One of the new fishes discovered was The Bamboo Shark *Hemiscyllium halmahera*, known as the walking shark, seen here in waters near Halmahera. Above in the Title area are two other creatures which are not new to science, but are very rare, in the centre is a white Orca, and on either side are Maui's Dolphins, which are the world's smallest and rarest dolphins. They are only found on the west coast of New Zealand's North Island where only 55 adults survive, and their numbers are being threatened by fishing and disease. The New Zealand government has proposed extending a protection zone to save the tiny, black and white cetaceans. But researchers say the actions do not go far enough and argue that the Maui.s could be extinct within 20 years. In 2012 a survey commissioned by the New Zealand



Bamboo Shark



Department of Conservation found that there were 55 Maui's left above the age of one. They estimated there were around 20 breeding females, and these usually give birth to one calf every two to four years. Conservationists say the introduction of nylon filament nets in the 1970s has been a key factor in the decline of these dolphins. The Maui's inhabit coastal waters up to a depth of 100 metres but have come into contact with trawlers and with fishermen using set nets which have proved particularly destructive to these animals. This picture shows a Maui.s entangled in nets.

Scientists have discovered a novel chemical lurking in the atmosphere that appears to be a long-lived greenhouse gas.

(LLGHG) The chemical—perfluorotributylamine (PFTBA) is the most radiatively efficient chemical found to date, breaking all other chemical record for its potential to impact climate change. Radiative efficiency describes how effectively a molecule can effect climate. This value is then multiplied by its atmospheric concentration to determine the total climate impact. Time is incorporated in the global warming potential metric as different compounds stay in the atmosphere for different lengths of time, which determines how long-lasting the climate impacts are. Calculated over a 100-year timeframe, a single molecule of PFTBA has the equivalent climate impact as 7100 molecules of CO₂.

Only three species of marine creatures were reported during December, Bottlenose and Common Dolphins and Harbour Porpoises. The only sighting of Common Dolphins was of a pod of up to 25 well off Gwennap Head NIC Lookout on the 1st of the month. There were three reports of Bottlenose Dolphins, a pod of 8 off Mousehole on the 8th, and pods of 4 or 5 off St Ives and Carbis Bay on the 16th and 17th, Probably the same pod. Two unidentified dolphins seen surfing at Gwithian on the 16th were probably Bottlenose from the same pod. The 10 sightings of Harbour Porpoises were all between The Brisons off Cape Cornwall and Gwennap Head mostly in small groups of one to 6, but 20 or more were seen off Lands End on the 3rd of the month