

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

Cod are traditionally regarded as fish that thrive in cold water, and therefore represent a species that might find things hard going in a future climate change with rising sea temperatures, so researchers from several European universities have equipped 3000 cod from 8 different European stocks, with advanced temperature gauges. For over a year the gauges registered and stored water temperatures around the fish at fixed regular intervals. So far 902 of the cod have been re-caught through fishing, and the tags holding the stored data sent back to the researchers, and the results have been published as a feature article in the "Marine Ecology Progress Series" The project had concentrated on cod because it is such an important fish commercially; at the same time, it is a large fish which can easily carry the electronic tag without being bothered by it. Some fish were found at temperatures as low as  $-1.5$  degrees, while others were swimming quite happily in water that was nearly 20 degrees above zero. This shows that cod are relatively adaptable fish that can tolerate higher temperatures than was previously thought. However, while this is true for adult cod, they appear to be somewhat more conservative in their choice of water temperature when they spawn. During this period, all the fish stocks studied consistently sought out water that had a temperature of between  $1^{\circ}$  and  $8^{\circ}$ . This indicates that the eggs and larvae stages of a cod's life may constitute a particularly vulnerable time with regard to the effects of climate change.



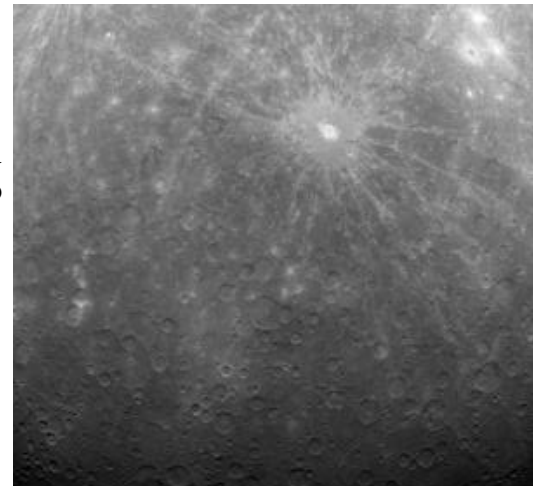
Researchers from Madagascar and the United States have found a new bird species in the remaining

*Mentocrex beankaensis*



Dry Forests of Madagascar. The new species of forest-dwelling rail, named *Mentocrex beankaensis*, with the genus *Mentocrex* being endemic to Madagascar, and the new species, *beankaensis* being coined after the locality, the Beanka Forest in western Madagascar. This species was distinguished from another in the same genus, known in the eastern portion of the island, based on aspects of size, plumage and DNA, and "New Birds to Science" emphasizes the critical need to conserve the remaining dry forests of Madagascar.

The spacecraft **Messenger** became the first to orbit Mercury, the Solar System's innermost planet, on March 18th 2011. and on March 29th at 5.20 am, captured a historic image, the first ever obtained from a spacecraft. In the next 6 hours **Messenger** acquired an additional 363 images before downlinking some of the images to Earth. In the next three days Messenger acquired a further 1185 additional images during its commissioning-phase activities. The year-long primary science phase of the mission began on April 4th and there are plans to acquire more than 75,000 images in support of **Messengers** science goals. The dominant rayed crater in the upper portion of the image is Debussy, The bottom portion of the image is near Mercury's south pole and includes a region of Mercury's surface not previously seen.



There were three reported sightings of Bottlenose Dolphins during March all in the Falmouth and Carrick Roads area, another sighting of unidentified dolphins were almost certainly Bottlenose which was in the same area within days of the other sightings. Two sightings of Common Dolphins in pods of about 8 were off Logan Rock and The Cowloe, Sennen, another sighting of 20 to 30 unidentified dolphins heading into the Bay off Lamorna on the 22nd were probably also Common Dolphins. 12 sightings of Harbour Porpoises were all between Sennen and Logan Rock, the largest group was 4 to 6 off Cape Cornwall on the 20th. The first Basking Shark of the year was seen at 8 metres depth by BDMLR divers off Roskilly on the 20th. A Lamprey was caught in a seine net off the beach at Watergate Bay on the 16th

