

Penzance B.S.A.C. Conservation Officers Report February 2010

There are microscopic nematode worms that can be a potent organic insecticide, killing crop raiding bugs without harming plants or beneficial insects and without the environmental side effects of chemicals. When this worm *H. bacteriophora* finds an insect in the soil, it crawls inside and vomits up special bacteria that had hitched a ride with the worm. The bacteria quickly kill the insect and spread, and the worm gobbles up the bacteria and reproduces. The bacteria and baby worms eat what's left of the bug and then head off in search of another insect host. Plants and other useful insects like bees, are not effected and the worms are not toxic to humans, so they are only a threat to beetles targeted by the worm which include Japanese Beetle, Colorado Beetle many species of weevils and many other beetles that wreck havoc on various crops. The worms occur naturally in concentrations too small to be effective at eradicating pests, but farmers can purchase bulk quantities of nematodes mass produced in huge fermentation tanks and spread them through irrigation. Unfortunately the Lab-grown worms become wimps, and are less deadly to insects when grown away from their natural habitat, they don't reproduce or find hosts as well. Scientists working on the project think this is due to inbreeding and are working to find a solution to this problem. The Leibniz Institute of Marine Sciences in Kiel, Germany are preparing a fleet of High-Tech Robot 'Gliders' to explore the tropical Atlantic. These instruments can explore the oceans like sailplanes up to a depth of 1000 metres. In doing so they only



H. bacteriophora



High-Tech Robot Glider

consume as much energy as a bike light. In the next years up to ten of these instruments will take measurements to better understand many processes in the ocean. The gliders can carry out autonomous missions for weeks or even months, and are equipped with instruments to measure temperature, salinity, oxygen and chlorophyll content as well as the turbidity of the water. The gliders can transmit their data and be reached by the scientists via satellite telephone and programmed with new mission parameters or set a new course.

Bottlenose Dolphins were seen 4 times during the day on 1st January off St Ives and 6 times at various times on January 2nd. They were also seen off St Ives on the 10th, 11th, 12th, and 15th so they spent most of the early part of the month in that area. Dolphins were also seen off St Ives on the 13th, 20th, 21st, 24th 26th and 27th, these were almost certainly the Bottlenose seen early in the month. A pod of 8 Bottlenose Dolphin were also seen off Sennen on the 26th. Harbour Porpoises were seen off Gwennap Head on the 2nd and 26th of the month and also off Penberth and The Brisons on the 19th and 20th. A Fin Whale was seen near The Runnelstone on the 8th and the tail of another whale was seen as it dived off Dolor Point near the Lizard on the 24th of the month