

Penzance B.S.A.C.

Conservation Officer's Report

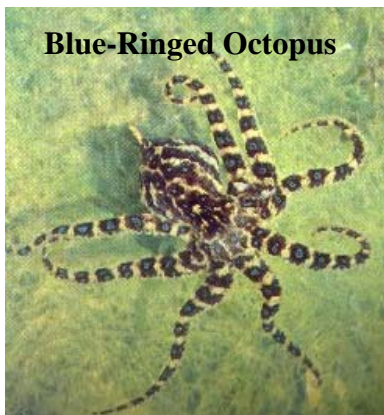
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There has been a process for making Biodiesel from Algae, but one of the problems with current methods is the processing cost, but a New York researcher has developed an innovative process which is at least 40% cheaper than other methods now being used. Supply would not be a problem, for there is a limitless amount of algae growing in the oceans, lakes and rivers, throughout the world. The new method uses a solid catalyst instead of a liquid one and the solid catalyst can be used over and over whereas the liquid one has to be replaced, so there is no water disposal cost and no wastewater produced to cause pollution. The new method needs a much smaller factory and the process is considerably faster because it allows continuously flowing production of the biodiesel compared to the method using a liquid catalyst. That process is slower because workers need to take at least half an hour after producing each batch to purify the biodiesel by neutralising the base catalyst by adding acid. No such action is needed to treat the solid catalyst. The researcher estimates that algae has an "oil-per-acre" production rate 100 to 300 times that of soybeans. The small plant the researcher has developed can produce a million gallons of biodiesel per year but with larger production plants it is predicted that it could lead to U.S independence from petroleum as a fuel. The solid catalyst continuous flow method can also be adapted to mobile units so it would not be necessary to construct large plants, and the military could use the method in the field.

A Norwegian entrepreneur living in Kenya has won a £50,000 contest for making the world's greenest invention, which he calls The Kyoto Box Oven. It costs just £3-50 to make and can cook casseroles, boil water and bake bread. It is made from two cardboard boxes, one inside the other, with an acrylic cover, which lets the sun's power in and traps it. Black paint on the inner box and silver foil on the outer help concentrate the heat while a layer of straw between the two provides insulation. It is targeted at the three billion people who use firewood to cook in developing countries. The oven could halve the need for firewood, saving an estimated two tonnes of carbon per family per year, and could save some of the millions of children who die each year from food cooked with unclean drinking water. It will be saving lives and saving trees, I doubt if there is any other technology that can make so much impact for so little money.



Kyoto Box Oven



Blue-Ringed Octopus

The Blue-Ringed Octopus species are very venomous and dangerous to humans and were once thought to be the only group to be venomous. They remain the only group dangerous to humans, but researchers have recently shown that all octopuses and cuttlefish and even some squid have quietly been using venom for predation, such as paralysing a clam to open its shell. Venoms are toxic proteins with specialised functions such as paralysing the nervous system and researchers hope that by understanding the structure and mode of action of venom proteins they can benefit drug design for a range of conditions such as pain management, allergies and cancer. While many creatures have been examined as a basis for drug development, cephalopods (octopuses, cuttlefish and squid), remain an untapped source and their venom may represent a unique class of compounds

Bottlenose Dolphins were reported 5 times during April. A pod of 6 or more were off Wherry Rocks on the 2nd and a pod of about a dozen were seen off Porthminster Beach on the 18th, this would have been the larger pod plus Cookie's pod, and these two pods were seen again in the area of the Gear Pole on the 19th. Cookie and Sleekie were seen in the Hayle and St. Ives area on the 6th and two unidentified dolphins, almost certainly Cookie and Sleekie, were seen off Cribba Head on the 19th, Cape Cornwall on the 24th and Gyllyngvase Beach on the 26th. Grey Seals were seen off Porth Ledden and Cape Cornwall and single Basking Sharks were seen off Pentra Head on the 6th, Killcobban Cove on the 14th and Portholland on the 19th of April, and two were seen off Porthgwarra on the 29th. 3 pods of Common Dolphins were seen off Porthgwarra on the 24th numbering about 20 to 25 animals.