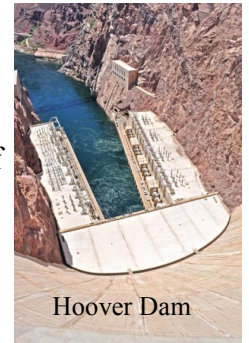
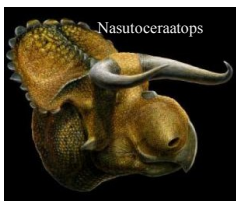


Friends of Penzance B.S.A.C. Conservation Officer's Report August 2013

A new method for producing electricity from carbon dioxide could be the start of a classic trash-to-treasure story for the troublesome greenhouse gas scientists are reporting. The method uses CO₂ from electric power plants and other smoke stacks as the new material for making electricity. Power Stations around the world release about 12 billion tons of CO₂ annually from combustion of coal, oil and natural gas. Home and commercial heating produces another 11 billion tons. Smokestack gas from a typical coal-fired plant contains about 10% CO₂ which not only goes to waste, but is a key contributor to global warming. The new technology would react the CO₂ with water or other liquids and, with further processing, produce a flow of electrons that make up electric current. It could produce about 1,570 billion kilowatts of additional electricity annually if used to harvest CO₂ from power plants, industry and residences. That's about 400 times the annual electrical output of the Hoover Dam. Like that dam and other hydroelectric power facilities, that massive additional amount of electricity would be produced without adding more CO₂ to the atmosphere.



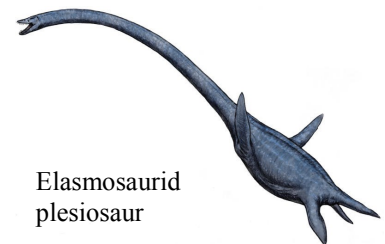
Hoover Dam



Nasutoceratops

A remarkable new species of horned dinosaur has been unearthed in Grand Staircase-Escalante National Monument, southern Utah. The huge plant eater inhabited Laramidia, a landmass formed when a shallow sea flooded the central region of North America, isolating western and eastern portions for millions of years during the Late Cretaceous Period. The newly discovered dinosaur, belongs to the same family as the famous Triceratops, and has been named Nasutoceratops. University of Alabama

researchers have also discovered the fossilized remains of a large marine reptile that once roamed the open seas 80 million years ago. First discovered on June 29th, was later identified as an elasmosaur, which is a sub group of the late Cretaceous plesiosaurs. Elasmosaurid plesiosaurs are easily recognised by their large body size—some species reach up to 45 feet in length. “Think Loch Ness Monster” They have very large flippers for swimming and extremely long necks, consisting of up to about 70 neck vertebrae. Extensive excavation is still in progress to find more of the fossilized remains.



Elasmosaurid plesiosaur

The first Global Atlas of Marine Plankton reveals a remarkable Underwater World. Under the microscope they look like they could be from another planet, but these microscopic organisms inhabit the depths of our oceans in nearly infinite numbers. To begin to identify where, when, and how much



oceanic plankton can be found around the globe, a group of international researchers have compiled the first ever global atlas cataloguing marine plankton ranging in size from bacteria to jellyfish. One of the more surprising findings from the study is that phytoplankton and zooplankton biomass are roughly the same size in the upper ocean. Compare that to more familiar land ecosystems where the biomass of plants greatly exceed that of animals.

There were 14 reported sightings of Bottlenose Dolphins during July, from Daymer Bay on the north coast to Fal Bay on the south. Largest pod was about 50 in St Ives Bay on the 27th. 16 reported sighting of Common Dolphins were from Bude around to Fal Bay. Largest pod, about 300 in Mounts Bay on the 27th. Only 2 reports of Risso's Dolphins were of a pod of 7 off Newquay and a single seen from the Scillonian. 23 sightings of Harbour Porpoises were from St Agnes around to Fal Bay, largest number seen were 16 scattered around Mounts Bay. A Minke Whale was seen along the south Penwith coast on the 5th. 14 sightings of Basking Sharks were from St. Ives to Porthleven. 39 reports of Ocean Sunfish were from Pentire Point on the north coast all the way around to Portwrinkle on the south. Most seen together were 12 off The Wolf Rock. Two Leatherback Turtles were seen, one in Mounts Bay the other from the Scillonian. Hundreds of Jellyfish were seen including Compass, Moon, Comb, Blue (*Cyanea lamarckii*) and the two with nasty stings, Lions Mane (*Cyanea capillata*) and *Pelagia noctiluca*.