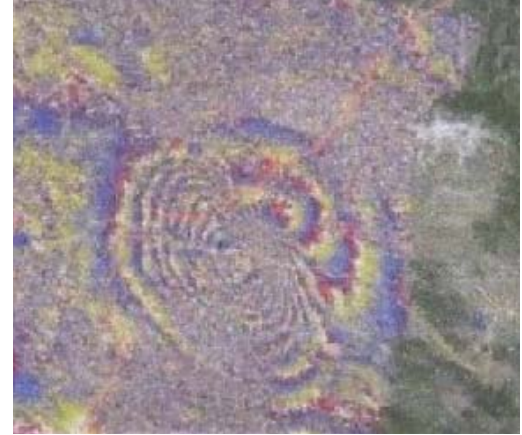


Penzance B.S.A.C.

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Scientists are using a technique known as SAR interferometry (inSAR) a sophisticated version of 'spot the difference'. inSAR involves combining two or more radar images of the same ground location, taken from a satellite, in such a way that very precise measurements, - down to a scale of a few millimetres-can be made of any ground motion taking place between image acquisitions. The inSAR technique merges data acquired before and after an earthquake to generate interferogram images that appear as rainbow-coloured interference patterns. A complete set of coloured bands, called "fringes" represents ground movement relative to the spacecraft of half a wavelength, which is 2.8 cm in the case of Envisat's Advanced Synthetic Aperture Radar. The interferogram image from the Italian Earthquake near the town of L'Aquila is shown here.



Artistic impression of Puijila from skeleton

Researchers have found a fossil skeleton of a newly discovered carnivorous animal, *Puijila darwini*. in the Canadian arctic. It is suggested that *Puijila* is a missing link in the evolution of the group that today includes seals, sea lions and Walruses. These all have flippers, limbs adapted for swimming in water. These adaptations evolved over time, as some terrestrial animals moved into a semi-aquatic lifestyle. Until now the morphological evidence for this transition from land to water was weak, but the remarkably preserved skeleton of *Puijila* had heavy limbs, indicative of well developed muscles, and flattened phalanges which suggests that the feet were webbed, but not flippers. This animal was likely adept at both swimming and walking on land. For swimming it paddled with both front and hind limbs. It is now believed that *Puijila* is the evolutionary evidence that had been lacking for so long.

Five final year engineering students at Kingston University have designed a motor bike which is powered by batteries that can be charged at a standard household socket. It can reach a speed of 102 mph and will make history by competing in the world's first zero-emission Grand Prix this summer. The Kingston team will join 24 eco-bikes from America, India, Italy, Germany and Austria on the start line at the Isle of Man TTXGP. The bike is run from a custom built, 72 volt battery and it has a whole vehicle efficiency of 90% , so it is only wasting 10% of what it is carrying. By comparison a petrol-based vehicle wastes 70% of the energy it carries. The competition takes place on June 12th.



Salema

Another 3 metre long Ribbonfish has been found stranded, this time at Tynemouth, Devon, and yet a rarer fish has been caught south of the Eddystone by a Looe Trawler, on the 30th April. This was a Salema, *Sarpa salpa*, a fish usually found grazing on seaweeds in shallow water on the coasts of the Mediterranean and the coast of Africa. This is only the 3rd specimen found in British waters.

11 Basking Shark sightings were reported during May. With sightings all around the coast from Newquay on the north coast to The Eddystone Light on the south. There were 3 sightings of the north coast pod of Bottlenose Dolphins and 2 sightings of the south coast pod. Two other sightings of unidentified dolphins were of 6 off Bosigran, probably Bottlenose Dolphins and 50 off Clodgy Point, probably Common Dolphins. There were 4 sightings of Risso's Dolphins, all between Mounts Bay and The Runnelstone. Only one report so far of Harbour Porpoises, and that was a single animal in Fal Bay. Thousand of By-the-wind-Sailors, *Verella verella* were found stranded along the south coast from Praa Sands and Kynance Cove west of the Lizard and Par Beach further east. 6 Grey Seals were seen hauled out on Black Rock Falmouth and a Turtle was seen in Mounts Bay. A lone Common Dolphin stranded alive on Tresco, Isles of Scilly, and a team from BDRLR flew out and successfully returned it to the open sea.