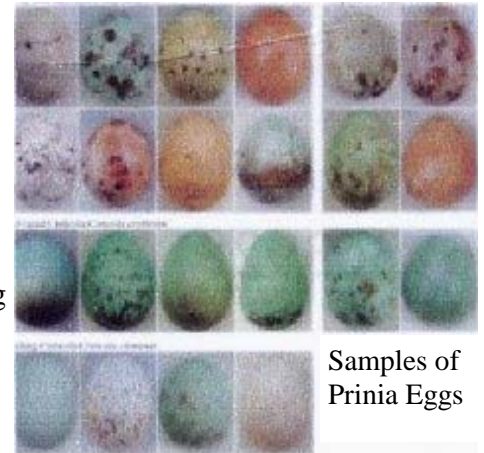


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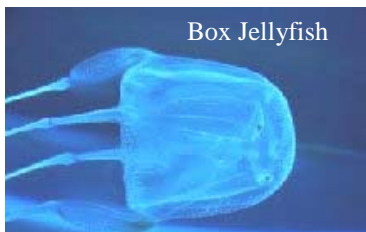
Conservation Officer's Report,

June 2011

A Biological Arms Race in birds has resulted in sophisticated defences against Cuckoos. Parasitic birds such as cuckoos lay eggs that mimic those of their hosts in an effort to trick them into accepting the alien egg and raising the cuckoo chick as one of their own. New research have found that different bird species parasitised by the African Cuckoo Finch have evolved different evolved strategies to fight back. The most frequent host of the Cuckoo Finch is the Tawny Flanked Prinia and they have developed a strategy where every host female will lay a different type of egg with colour and pattern varying greatly among nests. These egg 'signatures' make it harder for the cuckoo to lay accurate forgeries and her chances of laying a matching egg are exasperatingly low and the Prinia parent recognises that the egg in the nest is that of a cuckoo and proceed to eject it by spearing it on the end of her beak and carrying it away.



Box Jellyfish may seem like rather simple creatures, but in fact their visual system is anything but. They've got no fewer than 24 eyes of four different kinds. Now researchers have evidence revealing that four of



those eyes always peer up out of the water, regardless of the way the rest of the animal is orientated. What's more it appears that those eyes allow the jellies to navigate their way around the mangrove swamps in which they live. It is a surprise that a jellyfish— an animal normally considered to be lacking both brain and advanced behaviour— is able to perform visually guided navigation, which is not a trivial behavioural task. This shows that behavioural abilities of simple animals, like jellyfish, may be underestimated.

Gazing into the depths of a pond, it's hard to miss the insects that whirl and zip beneath the surface. However, only one species of spider has joined them; the diving bell spider *Argyroneta aquatica*. This spider spend their entire lives under water, only venturing to the surface to replenish their diving bell air supply. Until recently, it was not known how long the spider could remain under water before the bubbles oxygen level dropped, and the spider would have to rush to the surface to renew the supply. It was thought that they would have to make the journey several times a day. Recent research however have shown that the diving bell acts like a gill, sucking oxygen from the water, and that the spiders only need to dash to the surface once a day to supplement their air supply. The spider spend their entire lives submerged and even lay their eggs in their diving bells. Another problem for the spiders is that the bubble continually shrinks because nitrogen diffuses back into the water, eventually forcing the occupant to venture to the surface to re-supply the diving bell. Despite this, researchers were surprised to find that the spiders could sit tight for more than a day. It is advantageous for the spider to stay still for a long time, not only to protect themselves from predators, but also so they don't alert potential prey that come near.



A pod of Bottlenose Dolphins was seen off Nare Head near the Lizard on the 4th of May. A pod of 4 or 5 Bottlenose Dolphins was seen off the Wherrytown Rocks Newlyn late morning on the 27th. They were watched as they headed toward Newlyn Harbour Mouth then on toward Roskilly. Late afternoon they were watched as they played with a Grey Seal below the NCI Lookout at Cape Cornwall. Early afternoon a pod of unidentified dolphins was seen off Porthcurno, these were almost certainly the Bottlenose seen earlier at Newlyn and later at Cape Cornwall. Another Grey Seal was seen off Cape Cornwall on the 9th. 2 Harbour Porpoises were seen off Sennen on the 7th. Single Basking Sharks were seen off Lizard Point, Porthcurno and Porth Ledden and a pair were seen off Porthcurno on the 18th