## The Fascinating Life of the Stick Insect ... Peter Crowcroft: Education Activity Leader, Great Ocean Road Coast Committee

Stick Insects are of the Class Insecta, Family Phasmatidae.

Characterised by their incredible camouflage, and propensity to grow to a very large size, stick insects, known as Phasmids, in reference to their taxonomic family, capture our imagination, and must certainly rate amongst the most fascinating insect species we can happen upon.

It is not only their exquisite camouflage that makes them nearly impossible to spot in their natural habitat. Many of the 200 described species in Australia occur in low abundances, and may only move around and break their cryptic, stick-like disguise under the cover of darkness. That said, there are three species known to occur in plague proportions, which can effectively defoliate whole forests.

I recently, and excitedly, observed one, only because it was crawling up the inside of our glass sliding door. A newly hatched nymph, I placed it in a jar with fresh *Eucalyptus ovata* leaves, and within three weeks, we had seen two moults of the exoskeleton, with the insect growing approximately 50% longer each time. The species is likely *Ctenomorphodes chronus*, endemic to southern Australia, especially along the coastlines. The male is significantly shorter that the female, but has stronger, and better developed wings. This feature allowing them to detect the chemical signals from females, and relocate, following the pheromone trail!

Reproduction is usually by mating between a male and female, but parthenogenesis – cloning – is known to occur in some species. In a wonderful consistency with their floral mimicry, the eggs of Phasmids look almost exactly like seeds, and are layed directly onto the ground by the female in their hundreds. Those familiar with the fleshy, elaisosome structure on an acacia seed, will be interested to know that some Phasmid eggs even replicate this, attracting ants to take them underground, where they are stored out of harm's way. Of course, the nymphs of these species closely resemble ants when they first hatch, and quickly make their way out of the nest.

In a remarkable story of species recovery, the Lord Howe Island Stick Insect was brought back from the brink of extinction by Melbourne Zoo recently. This insect was endemic to that small island, but the introduction of rats in the early nineteenth century wiped them out. They were rediscovered on a tiny, rat-free, volcanic outcrop close to Lord Howe, and have now been successfully bred in captivity.

For those interested CSIRO has released a definitive field guide covering this remarkable family of insects.

References: Brock and Hasenpusch. 2009. *The Complete Field Guide to Stick and Leaf Insects of Australia*. CSIRO PUBLISHING, Melbourne.



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