

ZOOS VICTORIA'S 20 PRIORITY SPECIES

LORD HOWE ISLAND STICK INSECT

Dryococelus australis
Critically Endangered

Zoos Victoria has played a critical role in the conservation of the Lord Howe Island Stick Insect. We are leading a global breeding program to secure the survival of this species for future generations.

The main island population was decimated by introduced rats in 1918, yet amazingly this insect was rediscovered in 2001 clinging onto Ball's Pyramid, a sea stack 23km from the island. Since obtaining two individuals in 2003, Melbourne Zoo's intensive research into the captive breeding and behaviour of this 'Land Lobster' has brought it back from the brink of extinction.

Zoos Victoria is committed to Fighting Extinction

We are working to secure a future for the Lord Howe Island Stick Insect.



In 2003 a rescue team was sent to Ball's Pyramid to collect Lord Howe Island Stick Insects and commence a captive-breeding program to save the species. The team returned to the Australian mainland with two breeding pairs, one of which was entrusted to Zoos Victoria's. Staff bestowed the names Adam and Eve on the pair. Just as the insects were settling in, Eve became critically ill and staff worked through the night to save her. The future of a species was in their hands. Fortunately Eve survived and went on to lay 250 eggs. The entire captive population is descended from these original founders collected in 2003.

KEY PROGRAM OBJECTIVES

- + Conduct intensive research into the diet, behaviour, biology and genetics of this species
- + Maintain a captive insurance population with the ability to reintroduce the insect onto Lord Howe Island once rats have been eradicated
- + Increase community awareness of the plight of the Lord Howe Island Stick Insect and support for its conservation.

PROGRAM OUTCOMES

Melbourne Zoo has played a fundamental role in the captive breeding of this species. At the time of their rediscovery, very little was known about Lord Howe Island Stick Insects, and Melbourne Zoo staff continue to conduct intensive research into this species.

- + Zoos Victoria currently maintains three captive populations: one carefully managed to maximise genetic diversity, another 'free-ranging' population where natural mate choice occurs and a third population in the education centre

- + Just over 9,000 individuals have been bred at Melbourne Zoo, with the tenth generation hatching in mid 2012
- + Individuals have been sent to a range of other institutions locally and globally for breeding and display, with Budapest Zoo hatching their first individuals in April 2012.

SPECIES AT RISK

The Lord Howe Island Stick Insect is also known as the 'Land Lobster' or 'Tree Lobster' because of its robust structure. Nymphs are green but their colouration begins to change at a few months of age after their second moult or instar. Adulthood is at around six months of age and their life expectancy is 12 to 18 months. The Lord Howe Island Stick Insect can breed both sexually and asexually. Females can produce up to 300 eggs in their lifetime, which they bury in the soil or drop on the ground.

The only wild population of Lord Howe Island Stick Insects occurs on Ball's Pyramid and is threatened by:

- + Very small population size: with so few animals, one random event could wipe out the entire population
- + Habitat disturbance: the rock-face site is very vulnerable to disturbance. Access to the site is tightly restricted to protect the environment
- + Death of host plants and the invasion of Morning Glory, *Ipomoea cairica*, which encroaches on the limited remaining suitable shrubs
- + Illegal collection.

PROGRAM PARTNERS

Lord Howe Island Board
www.lordhoweisland.info/community/board

Department of Environment, Climate Change and Water, NSW
www.environment.nsw.gov.au

IMAGES

Front: The juvenile insect is known as a nymph. They remain green until their second instar at a few months of age.

Below top: Adults are nocturnal and like to clump together in daytime retreats.

Below bottom: A nymph hatching after an incubation period of 6-9 months.

Photos: Rohan Cleave.



FIND OUT MORE

www.zoo.org.au/conservation



Zoos Victoria is a not-for-profit, zoo based conservation organisation. We are Fighting Extinction through our local and global conservation programs, research projects and community conservation campaigns. For more information on this or any other Zoos Victoria project, visit www.zoo.org.au/conservation

