

Zoos Victoria's Priority Species

LORD HOWE ISLAND STICK INSECT

Dryococelus australis

Critically Endangered



Photo: Rohan Cleave

Zoos Victoria has played a critical role in the conservation of the Lord Howe Island Stick Insect. We are leading a captive insurance and breeding program to secure the survival of this species for future generations. The main island population became extinct following the unintentional introduction of 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 breeding program and research has substantially improved the long-term survival prospects of this remarkable species.

ZOOS
VICTORIA
Fighting Extinction

Zoos Victoria is committed to Fighting Extinction

We are focused on working with partners to secure the survival of our priority species before it is too late.



In 2003, two breeding pairs of Lord Howe Island Stick Insects were collected from Ball's Pyramid to commence a captive-breeding program to save the species. One pair was entrusted to Zoos Victoria and bestowed the names Adam and Eve. Eve initially became critically ill, but with help from staff she survived and went on to lay 248 eggs. The entire captive population is descended from these original founders.

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.
- Promote community awareness 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 several 'free-ranging' populations where natural social and foraging behaviours can be expressed.
- Over 14,000 individuals have been bred at Melbourne Zoo, with the 15th generation expected to hatch in 2019.
- Individuals have also been sent to several selected institutions locally and globally for breeding and display, including Bristol and San Diego Zoos, the Lord Howe Island Board and Museum, and Museum Victoria.

THE SPECIES

The Lord Howe Island Stick Insect is also known as the 'Land Lobster' or 'Tree Lobster' because of its large and robust body. 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 the Lord Howe Island Stick Insect occurs on Ball's Pyramid and is threatened by:

- **Very small population size:** with so few animals, inbreeding issues or disease could jeopardise the entire population.
- **Habitat disturbance:** the rock-face sites are very vulnerable to disturbance. Access to Balls Pyramid is tightly restricted to protect the environment.
- **Death of host plants and the invasion of Morning Glory, *Ipomoea cairica*, which encroaches on suitable shrubs.**

In early 2017 an expedition to Balls Pyramid led by The Australian Museum resulted in a single female being brought back to Melbourne Zoo. Named after the rock climber that found her, Vanessa injected valuable new genetic material into our captive breeding program, being the first Individual to come from the wild population since the original collect in 2003. Re-introduction to Lord Howe Island within the next few years is now a real possibility with a rodent eradication program underway.

THE PLAN

The following actions will enable Zoos Victoria, along with our partners to move forward knowing that we are doing everything we can to prevent the extinction of this species:

Maintain existing captive insurance population at Melbourne Zoo.	\$100,000 p.a.
Survey the wild population and, if appropriate, collect new founders from Ball's Pyramid.	\$100,000
Expand the Melbourne Zoo population to support re-introductions to the wild.	\$50,000 p.a.
Genetic research to guide captive management and re-introduction planning.	\$120,000
Establish a second wild population on Blackburn Island.	\$60,000

Support for re-introduction to Lord Howe Island. \$70,000

Activations at our zoos, online and on Lord Howe Island that aim to increase community care and knowledge of the insect and generate support for the conservation projects. \$20,000

Support community engagement on LHI and promote community support for re-introduction on Lord Howe Island, as required. \$30,000

Total cost over five years \$1,150,000

PROGRAM PARTNERS

Lord Howe Island Board
lhib.nsw.gov.au

NSW Office of Environment and Heritage
environment.nsw.gov.au

How can I help?

We are improving management of the captive population and preparing for future releases to Lord Howe Island, but we still need all the support we can get. You can support our Wildlife Conservation Master Plan 2019-2024 by donating at: zoo.org.au/donate