Update on the *in-situ* and *ex-situ* conservation of the Lord Howe Island stick insect

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Introduction

- Lord Howe Is. Stick insect (LHISI)
- *Dryococelus australis* (Montrouzier, 1855)
- Classed as Critically Endangered by the IUCN Red List
- Originally thought to be endemic to Lord Howe Is. (LHI)
- A “Lazarus” species – presumed extinct in ~1920
- Rumors of the specied surviving on Ball’s Pyramid (BP), a stack off the coast of LHI.
- Remains found in 1967, but no live animals until 2001
- Captive population started in 2003 by Zoos Victoria (Melbourne)

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Ex-situ conservation – aims

- Maintain an insurance population in captivity
- Increase community awareness of the plight of the Lord Howe Island Stick Insect and raise community support for its conservation
- Supplement wild populations through captive breeding for reintroduction. The ultimate aim is to reintroduce free-ranging Lord Howe Island Stick Insects onto Lord Howe Island, but rats will first have to be eradicated from the island

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Ex-situ conservation

- 2003 – 2.2 collected from BP – one pair went to Melbourne Zoo, the other to a private keeper (DNS).
- Very difficult to get the species established initially; a lot of “tweaking” was required for husbandry parameters.
- Due to small sample size, demographic management was the main tool for population management.

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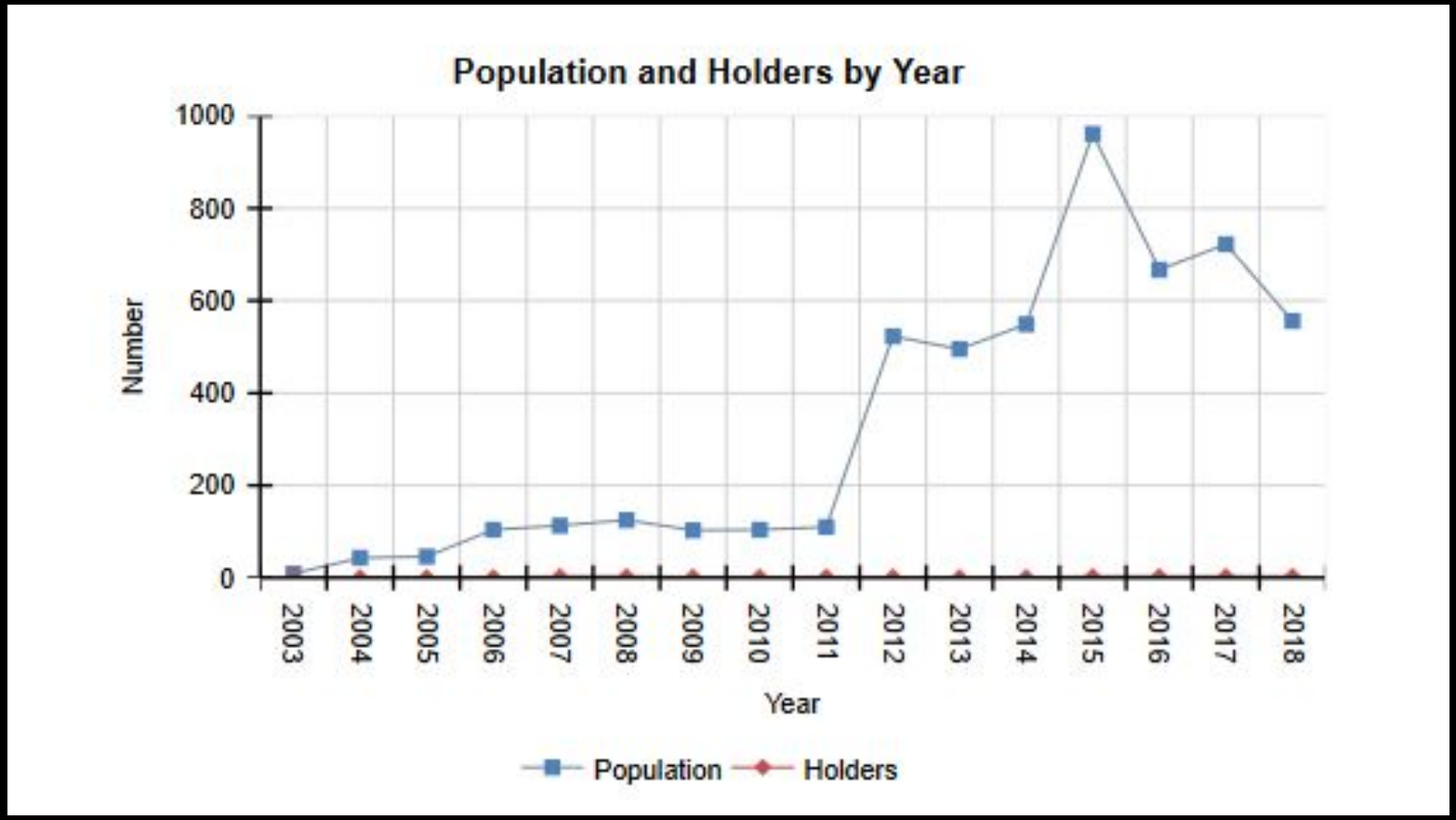
Ex-situ conservation



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Ex-situ conservation - developments

- In 2013 an initial effort to establish separate populations was attempted with Budapest Zoo and San Diego Zoo.
- 300 eggs sent to each zoo to establish the population, unfortunately only one adult reared at each collection and it was an unsuccessful attempt.

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Ex-situ conservation - developments

- In 2015 another effort to establish separate populations was attempted – Toronto Zoo, San Diego Zoo and Bristol Zoo Gardens were chosen
- 300 eggs carefully cleaned and sent to respective collections

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Ex-situ conservation - developments

- 2017 – another female collected from BP to add to Melbourne population
- A group of animals placed into enclosures on LHI , but still managed by staff and not released.
- Proposed “release” to Blackburn Is., a small area in a lagoon by LHI in the next few years

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In-situ conservation

- **Propagation and seed collection**
  - aims to re-vegetate areas with endemic plants currently being trialled successfully – Zoos Victoria assisting with propagation techniques which are rolled out to LHI
  - Also helping improve knowledge of potential additional natural food plants for the LHISI

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In-situ conservation

- **Blackburn Island**
- Zoos Victoria assisted the LHI Board to implement a new revegetation project on Blackburn Island.
- Aims to increase habitat for a range of endemic species and initiate translocation trials for the potential reintroduction of LHISI in future years. The project will benefit the critically endangered endemic LHI Bushroach and the two endemic reptile species, the LHI Skink and Gecko as well as other invertebrates.

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In-situ conservation

- **Rodent Eradication Project**
  - A fair amount of politics surrounding the project!
  - Initial investigation and research work done, implementation of eradication plan now expected to start in Winter 2019.
  - Still a long way to go, but has been trailled successfully in other areas (e.g. south Georgia)

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Further Information

http://lhirodenteradicationproject.org/

https://www.facebook.com/RodentEradicationLHI/

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Thank you!