LORD HOWE ISLAND RODENT ERADICATION PROGRAM

The largest populated island to attempt a full scale eradication of rodents. What does it take for an operation of this magnitude to be successful?

LORD HOWE ISLAND RODENT ERADICATION PROJECT

Lord Howe Island Board

1 PROBLEM IDENTIFICATION

2001–2017

Mice and rats are responsible for the extinction of at least 5 endemic bird species and 13 invertebrate species since 1918. Non-action will threaten the unique biodiversity values on which World Heritage listing is based.

150,000 MICE **210,000 RATS**

House Mice (*Mus Musculus*) arrived on Lord Howe Island before 1860. Black Rats (*Rattus rattus*) were introduced in 1918 when the ship *SS Makambo* ran aground.

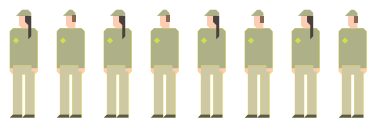
70+ THREATENED SPECIES IMPACTED BY RODENTS

Including the world's rarest insect, the Lord Howe Island Phasmid. Thought to be extinct since 1920, it was rediscovered on a rodent-free island in the Lord Howe Island Group in 2001.

2 PLANNING, LOGISTICS & COMMUNITY ENGAGEMENT

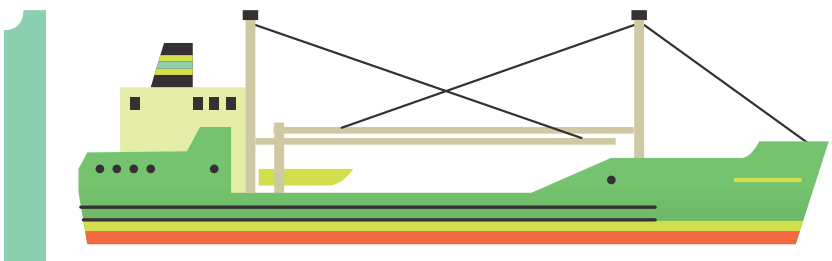
SEP 2017–MAY 2018

The chosen eradication method combines aerial and ground baiting followed by dog teams on the ground. Located 600km off the coast from Sydney, Lord Howe Island's remote location means the project requires extensive planning and logistics management to ensure the greatest possible chance of success.



8 CORE PROJECT CREW

Responsible for project planning and logistic management.



1 SUPPLY SHIP

Most of the equipment needed for the project will be shipped by the *Lord Howe Island Trader*.

3 BAITING

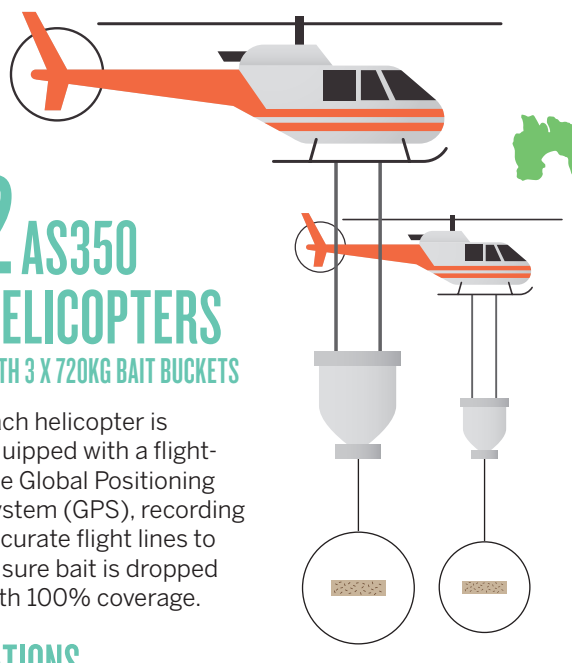
JUN 2018

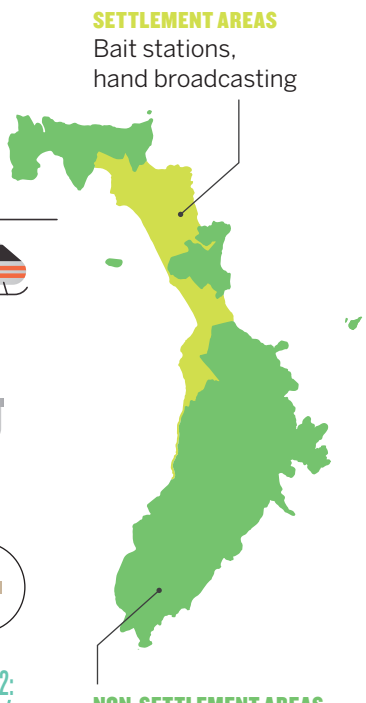
AERIAL TEAM

Aerial baits will be focused on the non-settlement areas of the island. It is anticipated that two drops will be sufficient to kill all rodents. The drops are scheduled for winter to decrease the risk to non-target native animals.

2 AS350 HELICOPTERS WITH 3 X 720KG BAIT BUCKETS

Each helicopter is equipped with a flight-line Global Positioning System (GPS), recording accurate flight lines to ensure bait is dropped with 100% coverage.





LESS THAN 1KG BRODIFACOUM

A total bait application of 42 tonnes of cereal pellet containing just 840g of the active ingredient brodifacoum.

3000 BAIT STATIONS

Scattered across the island in places the helicopters cannot access.

2100ha OF SURFACE AREA TO BE BAITED

2 AERIAL BAIT APPLICATIONS

3–5 days each, 14–21 days apart. Scheduled for June 2018.

2 HELICOPTER PILOTS

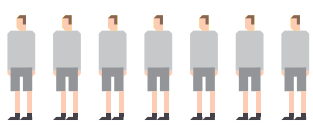
Highly skilled with experience flying in challenging conditions.

3 AERIAL SUPPORT CREW

One helicopter engineer, one GIS officer and one loading supervisor.

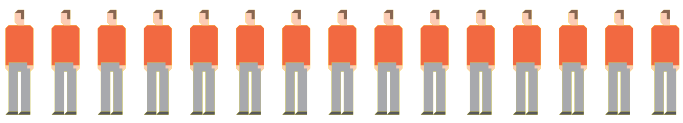
7 BAIT LOADERS

Keeping the buckets full to maximise flying time.



GROUND TEAM

A combination of hand broadcast and bait stations will be used throughout the settlement area to ensure coverage, in conjunction with the two aerial drops.



30 GROUND BAITING CREW

Responsible for hand broadcasting and placement and monitoring of bait stations in the settlement area.

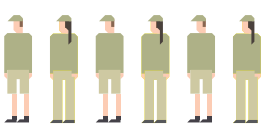
4 MONITORING & CAPTIVE MANAGEMENT

MAY 2018–AUG 2020

Intensive rodent monitoring for two years, followed by ongoing biosecurity monitoring. If no rodents are detected two years after the initial eradication the project will be deemed a success.

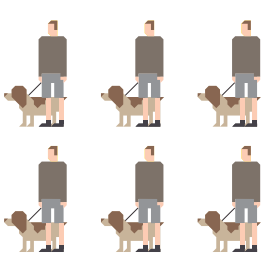
6 CAPTIVE MANAGEMENT CREW

Up to 350 endemic birds (85% of woodhens and 60% of currawongs) will be captured and caged during baiting. This crew provides specialist care for the birds during the monitoring phase.



6 SPECIALLY TRAINED DOG TEAMS

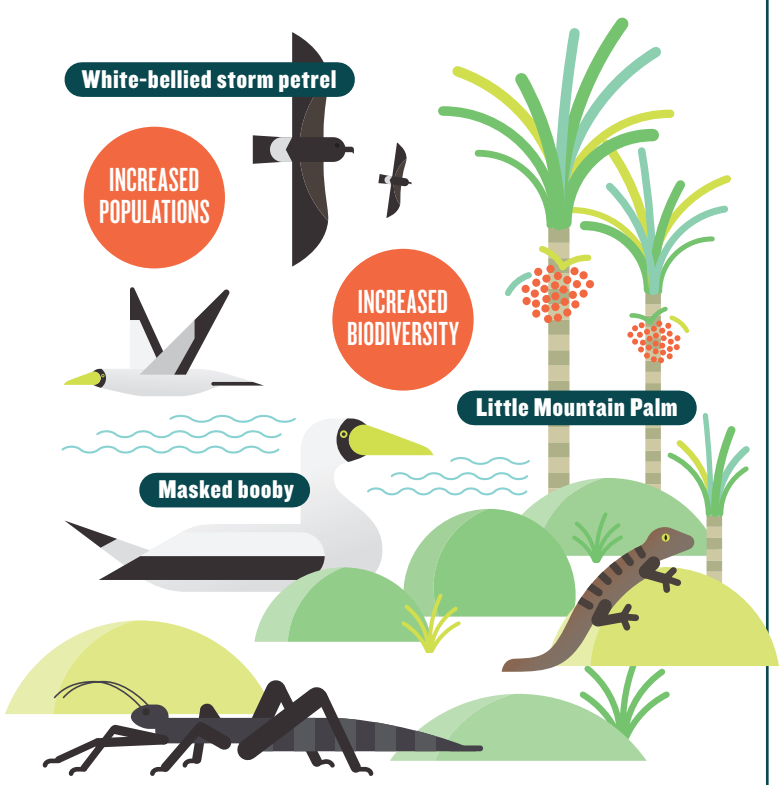
Two permanent biosecurity dogs and their handlers will monitor rodent activity. Four rodent detectors dogs and their handlers will also be used for two weeks after the baiting.



5 OUTCOMES

AUG 2020

- Increased biodiversity.
- Enhanced world heritage values.
- Increased numbers and breeding success for birds such as the Kermadec petrel, Masked booby and White-bellied storm petrel.
- Increased seeds and seedlings for numerous plant species including the critically endangered Little Mountain Palm.
- Recovery of endemic ground lizards and invertebrates such as land snails.
- Reintroduction of the world's rarest insect, the Lord Howe Island Phasmid.
- Long term benefits to tourism and the island's economy through improved visitor experience.



TIMELINE

1

2001–2004
Feasibility study.

2007–2012
Initial trials.

2012
Funding received.

2012–2017
Additional studies and community engagement.

2

SEP 2017–MAY 2018
Recruitment, planning and logistics.

3

MAY 2018
Woodhen and currawong capture.

JUN 2018
Aerial and ground baiting.

4

JUL–NOV 2018
Environment and health monitoring.

AUG 2018
Initial detector dog monitoring and Masked Owl eradication.

SEP–OCT 2018
Currawong (staged) release.

NOV 2018
Woodhen release.

JUL 2018–JUL 2020
Rodent detection and biodiversity benefits.

AUG 2020
Final detection and dog monitoring.

5

AUG 2020
Outcome of project declared.

POST-2020
Long term biodiversity monitoring over 3–10 years, plus ongoing rodent and biosecurity detection.

FUNDING

Funded by National Landcare Program (Federal) and the NSW Environmental Trust (State).

PROGRAM BUDGET: $9.5 MILLION

INFOGRAPHIC BY MIKE ROSSI / MICROGRAFIK.COM

PROGRAM PARTNERS:

Australian Government | National Landcare Programme

NSW GOVERNMENT | NSW Environmental TRUST

United Nations Educational, Scientific and Cultural Organization

Lord Howe Island Group inscribed on the World Heritage List in 1982