

Lord Howe Island rodent eradication case study

PART 1

Lord Howe Island is located approximately 600km east of Port Macquarie in NSW. It is a World Heritage site with high biodiversity, including seabird nesting sites, flightless birds such as the Lord Howe Woodhen, and the world's rarest insect, the Lord Howe Island Phasmid. A human community has lived on the island since 1833. Currently there is a cap of 380 permanent residents and 400 tourists at any one time.

Mice were introduced to the island in the 1850s and rats in 1918. As the island had no native mammal predators, the rodents immediately had a huge impact on the island species, causing the extinction of five landbird species, two plant species, and many invertebrates. Control measures included shooting, traps and poisons. Owls were also introduced to the island, although they also hunted native species, and soon came to be considered another pest species for removal. Other species, such as goats and pigs, were introduced after settlement in 1833, but they were eradicated thanks to local efforts by 1999. Domestic cats were banned from the island in 1982, with feral populations also eradicated.

In 2012, the State and Federal governments committed \$9 million in funding for a rodent eradication program.

Unfortunately, some members of the community strongly opposed the program. Letters were written to the government and local newspapers opposing the proposal, and petitions opposing the scheme were also presented to governments.



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PART 2

Despite a survey in 2015 finding that 91% of respondents concurred that the rodent problem on Lord Howe Island needed addressing, opinions were still divided, almost 50/50, on how the program should proceed.

Many residents felt the eradication efforts up to this point had been largely futile, and were frustrated at the imposition of needing to provide access to buildings and properties to carry out the eradication procedures. Island populations can also be wary of any outside interference, anti-establishment, territorial and conservative in their approaches. Individuals involved in the delivery of the program were not trusted and were not welcome on many leases. It can also be difficult for conservation measures to succeed in remote, isolated communities with limited resources.

However, it was clear to scientists that there could be no successful rodent eradication program without broad-based community support. Furthermore, it was acknowledged that many Island residents had knowledge that could only enhance the success of the program. Island residents have acquired an intimate knowledge of their local environment, and islands typically have close-knit communities with deep historic roots, giving a strong proprietorial sense of ownership.

Scientists therefore began to commit to collaborate with the community, empowering residents to facilitate the proposed eradication on terms they could agree with. Environmental experts visited with community members, and information leaflets explaining the scheme were distributed. Residents were invited to discuss issues with specialists on various aspects of the proposal.

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PART 3

The program finally began in mid-2019 and was completed in November 2019. The focus then moved to monitoring and strengthening quarantine, with strong biosecurity measures put in place, including sniffer dogs, to ensure rodents do not make their way back onto the island.

The program has largely been considered a success, with Lord Howe Woodhen populations growing, as well as other plant and animal species flourishing once again.

Upon reflection, many lessons can be learnt from the rodent eradication program on Lord Howe Islands for future programs of a similar nature. Previously most eradication programs had been carried out on uninhabited islands, so community resistance was a new challenge conservationists had to navigate.

The project team was comprised of scientists and environmental managers with limited understanding of social issues, communication and community engagement. The funding was first announced in the mainland press and this inflamed island concerns and highlighted for the residents that their concerns had been ignored. This led to an initial lack of a sense of stewardship for the island's environment amongst residents.

The project focused almost exclusively on the environmental benefits to the Island and did not consider the social, economic benefits and consequences. For example, to this day, very little consideration has been given to the perceived economic impact on tourism of the proposed rodent eradication, and this could have brought residents more on board.