

LION ISLAND LITTLE PENGUIN THREAT ABATEMENT

overview of the project



Little Penguin

Lion Island Nature Reserve houses a large colony of Little Penguins (*Eudyptula minor*), estimated at about 300 breeding pairs. A joint project between National Parks and Wildlife and Taronga Zoo has been underway since early 1990 to manage and monitor the colony. This project continued the rehabilitation work on the island and formed part of an ongoing plan to protect the Little Penguin and its habitat.

Broadly, the project rehabilitated penguin nesting sites from weed infestation. Other goals achieved included protecting and restoring the diversity of native plant species, monitoring soil stability and surveying the surrounding mainland for Little Penguin habitats and activity. Overall the project made a significant contribution to the long term protection of the Little Penguins by making valuable improvements to their habitat.

how the project was carried out

Bush regeneration works were largely carried out by a specialist company; however, volunteer groups also provided valuable labour and expertise. Weeding methods were determined dependent on the types of weeds and the nature of the terrain. *Pittosporum undulatum* was controlled by selective culling. On the extremely steep sites where bitou bush was growing, spraying was undertaken as a more suitable method. Biological control was also used to manage bitou bush. Weeding and revegetation were carried out in stages so that cleared areas were not left bare and vulnerable to erosion. The team were always conscious of the potential for erosion, as the steep sites and fragile soil are a risk factor for collapse of burrows.

Volunteers surveyed numbers of Little Penguins on four occasions by counting penguins as they entered the beach. Research was also undertaken to find out whether penguins were living on the nearby mainland. The surrounding foreshores were searched by boat for evidence of penguin activity and nesting burrows.

outcomes now and in the future

The persistent and thorough weeding efforts of the team uncovered potential nesting sites and actual burrows, some of which are now in use. The penguin population appears to be stable, as the researchers had hoped. Testing has shown that the weed removal has not caused erosion, and further clearing can continue, as long as sites are quickly revegetated to stabilise the soil.

There is an ongoing plan of management for Lion Island that will ensure that the penguins' habitat continues to be protected. The local bush care group, who have offered their enthusiastic assistance over the past ten years, continue to support the

work of the official managers of the nature reserve, and their combined efforts will assist the breeding colony to at least maintain its current numbers.

benefits, challenges & lessons learned

This project has successfully protected and improved the Lion Island penguin habitat, making it one of the most thriving sites for penguin colonies in NSW. The work is not only important, but very rewarding for the team, as every area weeded has a direct and visible benefit for the fauna of the island. Careful management of the different facets of the project and safekeeping of the site location details have ensured continued protection of the vulnerable habitat. Public access to the island is restricted due to the fragile nature of the terrain and the potential damage that can be caused by human traffic. The island nature of the location sometimes caused access problems for the volunteers. Rough seas and rain, as well as closure of the site due to fire danger, meant that some work days were lost. Additional delays were caused when in periods of dry weather native plant growth was slow in weeded areas. These difficulties were overcome by small changes to the programs and by rescheduling lost work days.



Lion Island terrain