

Big Green Island Black Rat Eradication 2016

Tasmania Parks and Wildlife Service

The Island

Big Green Island is 125 ha in size, 6 km SW of Whitemark and 3 km directly off the coast of Flinders Island. After a long history of freehold titles, the island was sold to the Parks and Wildlife Service (PWS) in 1980 and reserved as a nature reserve with the objective to establish a secure place for Cape Barren geese breeding. Sheep grazing was continued to maintain short grass which is favoured by geese. Dennis Cooper currently has the grazing lease. Stocking levels fluctuate in response to seasonal conditions; currently there are 400 sheep on the island.

There are two cottages and a shearing shed and access is by boat from Whitemark.

An estimated 22,000 pairs of short tailed shearwaters and 400 pairs of little penguins breed on the island. Low numbers of Pacific and silver gulls nest there, as do pied and sooty oyster catchers, black faced cormorants and Caspian terns. The island is a significant breeding site for Cape Barren geese.

The vegetation is highly modified on the main island with predominantly introduced pasture grasses and clover. The islets to the north, which are joined to the main island by a rocky isthmus, are not grazed and maintain an assemblage of native plant species. The vegetation of the islets consists of the tussock *Austrostipa stipoides* and succulents (*Sclerostegia* shrubs).

History of Pests

It is not clear when black rats (*Rattus rattus*) arrived on the island but it is likely they have been there since the 1800s. Rats are omnivorous, opportunistic feeders that climb trees and use burrows, and can have devastating effects on islands and their biota through predation. Rats also impact the growth of pasture grasses by consuming a high proportion of the seed. European rabbits were introduced in about 1862 and died out around 1914 due to drought.

House mice were reported on the island in a study between 1965 and 1968. It is unknown whether they are still present. They were reported occurring around the buildings but the current lessee has not seen mice on the island.

Eradication of Rats

The Parks and Wildlife Service has been assisting the island's lessee with rat control for many years. Funds have been made available through the Tasmanian Coast Conservation Fund to undertake a rat eradication program. The goal of the Big Green Island Rat Eradication Project is to remove the introduced black rats and thus reduce their impacts on the natural and agricultural values of the island.

The eradication strategy is to use poison wax baits anchored in stations at 25m intervals over the entire island and three nearby islets. Baits will be replaced continually until bait-take ceases. Baited stations will remain in place for at least one month after the last known bait-take. As it is unknown

whether house mice still exist on the island, stations left over from the main gridding operation will be placed at grid centroids around the buildings to increase the density of stations in this area.

The operation requires around 2000 bait stations. The installation and baiting of stations will be undertaken and monitored using the GIS field data collection program 'Fulcrum' installed on iPads, with the assistance of Wildcare Friends of GIS.

The operation will require several visits to the island between March and July 2016:

- Transport of bait stations to Big Green Island via barge (1 day)
- Installation of bait stations (10 days)
- Intensive baiting (28 days)
- Follow up baiting (6 days)
- Removal of bait stations (7 days)

The workforce will include Wildcare volunteers from Friends of Bass Strait Islands and Friends of Maatsuyker Island, PWS staff and staff from Pennicott Wilderness Journeys. Between 5 and 8 teams of two will undertake bait station installation, baiting, and station removal for the various trips.

Post-eradication verification of project success will be undertaken at one and two years after baiting, and comprise several methods including cameras, chew sticks, wax tags and a rodent detector dog.

Logistics

The field team will bring their own tents and sleeping gear for use on the island. The lessee has made the original old house available to the team as a communal kitchen and office. This house includes a bathroom and toilet. The shearing shed is also available for use.

Volunteers will be transported to Flinders Island by chartered light plane from Bridport. The project will pay for the air transport. Transport arrangements to Bridport will be via volunteers' private vehicles. A volunteer team leader will coordinate vehicles and people to Bridport.

Food will be paid for by the project and mostly purchased in Whitemark. Assistance with developing advance orders for purchasing fresh produce and dry goods will be needed.

Skill set for volunteers

- Field hardiness for camping and working in variable weather conditions
- Physical fitness for walking up to 12 km a day and carrying a day pack
- Ability to carry extra weight, eg. up to 5kg of bait or bait stations for short distances
- Basic skill with using iPads or the ability to learn this on site
- Ability to remain focussed during repetitive field work: baiting up to several hundred bait stations per day, installing or removing these stations
- Some individuals with certification for chainsaw and/or brushcutter use (Installation trip)
- One or more individuals per team with remote first aid certification

Dates and volunteer numbers

Shift	Start date	End date	Days	Volunteers	Staff	Details
Installation	7-Mar-16	16-Mar-16	10	10	2	Install bait stations across island
1	25-Apr-16	4-May-16	10	14	2	baiting, all stations checked over a two day period
2	4-May-16	13-May-16	10	10	2	baiting, all stations checked over a two day period
3	13-May-16	22-May-16	10	10	2	baiting, all stations checked over a three day period
4	6-Jun-16	11-Jun-16	6	10	1	Re-bait, check for rodent activity
5	20-Jun-16	26-Jun-16	7	10	1	Re-bait, check for rodent activity, remove most stations if no activity since Shift 3
6*	4-Jul-16	10-Jul-16	7	10	1	Re-bait, check for rodent activity, remove most stations if no activity since Shift 4

* Shift 6 is contingency at this stage, only required if stations are not removed at Shift 5

Being a remote island location and subject to weather conditions, it is possible some changes to dates may occur at short notice.

Expressions of Interest

Volunteers who would like to participate in one or more of these trips are asked to email ranger Cindy Pitchford with the trip/s they are interested in and with brief details on their skills in relation to the above skill set.

cindy.pitchford@parks.tas.gov.au

Thank-you for your interest,

Wayne Dick

Senior Ranger Flinders Island

Big Green Island Rat Eradication Project Manager