

Rat monitoring on the Greene Peninsula: pre-winter wax tag checks

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Introduction

Greene Peninsula is situated within Cumberland Bay East on the eastern coast of South Georgia and covers an area of approximately 4,100 hectares, of which 21% is vegetated (SGHT 2010). The Nordenskjöld and Harker Glaciers effectively isolated the population of rats on the Peninsula from those in adjacent zones.

As part of Phase 1 of the South Georgia Heritage Trust's rat eradication, the Greene Peninsula was baited via aerial spreading of brodifacoum pellets (supplied by Bell Laboratories, Wisconsin, USA) between 1st and 4th March 2011 (SGHT 2010).

Post-baiting monitoring is a critical part of pest eradications, particularly in trial areas where eradication protocols are being tested. Peanut butter-flavoured wax tags (Pest Control Research, Christchurch New Zealand) were deployed around the Greene Peninsula in February 2012 by the South Georgia Government (GSGSSI) (Black & Rexer-Huber 2012) (Fig. 1) and checked during this visit.



Figure 1. Monitoring for rat sign on the Greene Peninsula, South Georgia. Squares indicate locations of wax tags.

Methods

Two experienced fieldworkers visited the Greene peninsula in early April 2012 to check wax tags for rat sign prior to winter. All tags along the coastal fringe (Sudan Beach, Balsam Beach and Dartmouth Point area, Fig. 1) were checked on the 2nd of April 2012, while tags located on inland tussock slopes were checked on the 3rd of April. Each of the 46 wax tags was checked carefully for any sign of rat gnawing or nibbling (Fig. 2).

Results

No evidence of rat activity was found on any of the Greene Peninsula wax tags. In two cases the wooden stake that tags are attached to was broken (WT19 and WT23), presumably due to seal activity. Although the stakes were repaired, they should be replaced at the next tag check. At one wax tag (WT29), the peanut butter lure was broken off so the tag was replaced. Again, seal disturbance is the most likely explanation.

The entire circuit for checking coastal tags required 7 hours. Checking of the inland tags was slowed to ~5 hours by 40–60cm of snow. The red-painted top of the stake mostly showed just above the snow (Fig. 2), but three of the poles inland were entirely covered, requiring extra GPS-aided searching.



Figure 2. Greene Peninsula rat monitoring, April 2012. Wax tags are mounted on the red-painted stake.

Conclusions

Although it is still too early to declare that rats have been eradicated from the Greene Peninsula, it is encouraging that there is no evidence of rats more than a year after baiting, particularly since rat populations should peak in autumn.

We recommend that all tags are checked again in the early spring.

References

Black & Rexer-Huber (2012) Post-baiting rat monitoring on the Greene Peninsula. Government of South Georgia and the South Sandwich Islands, February 2012.

SGHT (2010) Operational plan for the eradication of rodents from South Georgia: Phase 1. South Georgia Heritage Trust, December 2010.

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