



Scottish  
Environment  
LINK

# Still Delivering the Goods

## Case Study 4



COMPLETED

### Protecting and restoring the Shiant Isles SPA through rat removal

RSPB Scotland



Photo: Aidan Macconnick

Read the full report, with the 15 case studies here:

<https://www.scotlink.org/publication/still-delivering-the-goods/>



### Background

This was a partnership project between RSPB Scotland, Scottish Natural Heritage (SNH)<sup>14</sup> and the Nicolson family, who have been custodians of the Shiant Isles for three generations. The Shiant Isles are one of the most important breeding colonies for seabirds in Europe – around 10% of UK puffins and 7% of UK razorbills breed on the islands every year.

Black rats were thought to have arrived on and colonised the Shiant Isles from an 18th century shipwreck. Their presence affected the breeding success of nesting birds and discouraged species like Manx shearwaters and European storm petrels from colonising. Such impacts on introduced predators occur on numerous islands around Scotland and the world.



### Project aims

- 1 Eradicate black rats *Rattus rattus* at the Shiant Isles, and establish biosecurity at the islands
- 2 Actively promote colonisation by Manx shearwaters and European storm petrels at the islands
- 3 Audit and improve biosecurity practices for the UK's seabird SPAs
- 4 Build UK expertise in invasive species eradications for island restoration, and provide a foundation for the **Biosecurity for LIFE Project**.



### Project Timescale

2014 – 2018



### SBS Objectives

The aims from the **2020 Challenge for Scotland's Biodiversity**:

1

To protect and restore biodiversity on land and in our seas, and to support healthier ecosystems.

The removal of the threat posed by black rat predation to nesting seabirds at one of Scotland's most important seabird islands helped protect and restore this important seabird population and island ecosystem. The expertise built in this project is being 'exported' to apply biosecurity and INNS eradication across Scotland and the UK under the Biosecurity for LIFE Project.<sup>15</sup>

2

To connect people with the natural world, for their health and wellbeing and to involve them more in decisions about their environment.

The employment, volunteering and community engagement aspects of the project connected many individuals and communities with their natural world. Ongoing engagement and tourism will further this.

3

To maximise the benefits for Scotland of a diverse natural environment and the services it provides, contributing to sustainable economic growth.

The project contributed to highlighting, protecting, and enhancing the biodiversity on the islands and the surrounding marine environment for all those visiting, using and travelling over the seas of the Minch.



<sup>14</sup> Now known as "NatureScot".

<sup>15</sup> <https://biosecurityforlife.org.uk/>



## Project Summary

- The project successfully eradicated the black rat population in the Shiant Isles during winter 2015–16.
- Long-term biosecurity surveillance measures were put in place in the Shiant Isles in 2016.
- Biosecurity audit of the UK's seabird islands was completed in 2016 and training workshops were delivered to island managers during 2017–2018.
- Nest boxes for Manx shearwater and European storm-petrel installed and call playback attraction was deployed.
- Project legacy evolved and expanded into Biosecurity for LIFE programme across seabird SPA islands, focusing on preventing future non-native predator impacts.



## Climate Impacts

Secure and productive breeding sites make seabird populations considerably more robust in the face of a changing climate that will, undoubtedly, affect food supplies. Equally, a thriving seabird population is a good indicator of healthy seas in the surrounding area – themselves an important store and sink for carbon emissions.



## People Information

### Direct employment:

- 10 people were employed by the RSPB on seasonal contracts to carry out ecological surveys on the islands to measure the impact of the eradication.
- One project manager was employed by the RSPB during 2014–2018, and a maternity cover for this post was in place for 15 months during 2015–2016.
- Through sub-contracting of boat operators and the eradication operator, a further seven people were employed in project activities.

### Volunteers:

- 14 volunteers were recruited locally by the RSPB on Harris to assist in the making of the 1000+ bait stations needed in the eradication.
- 15 volunteers were recruited across the UK by WMIL (the contractor responsible for carrying out the eradication) to take part in the eradication operation on the Shiant Isles and a further 3 volunteers were recruited by the RSPB to assist in the follow-up rat surveillance.

### Training was delivered by the project for:

- A total of 39 conservation managers and volunteers living and/or working on the UK's seabird island SPAs.

**Wider engagement:** The local community in the Outer Hebrides were able to attend the end of project conference held in Stornoway in September 2018; a total of 48 invited UK and international delegates and around 100 local residents attended the conference.



## Successes and achievements

- 1 European storm-petrel breeding attempt was confirmed in 2017, and successful breeding was confirmed in September 2018 when a chick responded to call playback.
- 2 The productivity rate of breeding puffins was consistently higher during 2016–2018 than that recorded before the rat eradication during the 2015 breeding season.
- 3 39 conservation managers and volunteers were trained in the implementation of island biosecurity measures.



Photo: Aidan Maccornick



### Issues and challenges

- The feasibility study for the eradication had been completed in 2013, and some significant changes had occurred by the time the eradication was set to take place, including:
  - Changes to regulations meant that the recommended rodenticide was no longer available for use and an alternative had to be found.
  - White-tailed eagles had established on the islands in 2014 and the risk of secondary poisoning had to be considered.
  - Storms in January 2015 had reshaped the boulder causeway between the two main islands in the group, making it impassable around each high tide and presenting additional logistical challenges to the eradication.
  - Delays in recruitment at the start of the project, and the reduction in the size of the originally planned team resulted in heavy workloads during the preparatory phase of the eradication (2015).
  - The cost of a vessel required for operating between the islands at the Shiant Isles had originally been underestimated, meaning that boat work was tendered out to existing local boat operators rather than being undertaken by project staff. Remote rope access training was identified as a further, previously unidentified requirement. Therefore, the overall cost of the winter operation increased.
  - Severe winter weather disrupted the baiting operation and plans had to be adapted around storms and rough sea conditions.

Despite these challenges, the project successfully achieved all of its objectives and targets.



### Funding

The project had a total budget of over **€1,120,699** (around £1 million), with contributions including:

- EU LIFE contribution: **€558,044** (around £500k)
- Co-financing from SNH: **£200,000**
- Other funding comprised of private donations and staff time contributions by the RSPB.



### Further information

<https://ww2.rspb.org.uk/our-work/conservation/shiantisles/work/index.aspx>

[https://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n\\_proj\\_id=5018](https://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=5018)

<https://biosecurityforlife.org.uk/>