

STATE OF CONSERVATION REPORT

GOUGH AND INACCESSIBLE ISLANDS (UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND) (N740 bis)

1. Executive Summary of the Report

In accordance with Decision **44 COM 7B.192** of the World Heritage Committee, the United Kingdom of Great Britain and Northern Ireland, as the State Party, has produced a State of Conservation Report for the Gough and Inaccessible Islands World Heritage Site.

The report provides an update on the implementation of the house mouse eradication programme, which resulted in a temporary reduction in the number of mice detected on Gough Island and improved breeding success in a number of seabird species in 2021. However, a longer term and permanent solution is still being sought after mice were detected in December 2021, with the breeding rate of the mice now rapidly increasing.

Further updates on attempts to limit the spread of the invasive plant procumbent pearlwort species, breeding rates of some of the species which contribute towards the property's Outstanding Universal Value, and the impact of the Highly Pathogenic Avian Influenza on seabird populations on Gough Island are also provided in the report.

The report is structured according to the format provided by the World Heritage Centre. The text of the Committee decision is given first, in italics. The response of the State Party does not use italics and is not indented.

2. Response from the State Party to the World Heritage Committee's Decision 44 COM 7B.192

The World Heritage Committee,

1. *Having examined Document WHC/21/44.COM/7B,*
2. *Recalling Decision 42 COM 7B.81, adopted at its 42nd session (Manama, 2018),*
3. *Welcomes the progress made in 2019 regarding preparations for the implementation of the house mouse (*Mus musculus*) eradication programme on Gough Island in 2020, however regrets that COVID-19 restrictions resulted in the postponement of the programme's implementation, and requests the State Party to ensure the full implementation of the programme, including to secure adequate funding, as a matter of priority as soon as conditions allow;*

The project to eradicate the house mouse (*Mus musculus*) from Gough Island commenced in 2021.

The project was jointly funded by the UK Government, a variety of philanthropic institutions and foundations and a large number of private individuals. It was undertaken by a partnership led by the Royal Society for the Protection of Birds (a UK-based Non-Governmental Organisation) and the Government of Tristan da Cunha, alongside the UK Government, the Government of South Africa, and six additional non-governmental organisations.

The operation aerially applied poison bait across the entire island to eradicate the entire house mouse population of the island. The bait-laying operation commenced in May 2021 and completed in August 2021.

4. *Reiterates its request to the State Party to keep the World Heritage Centre informed on the results of the house mouse eradication programme and on actions to avoid collateral impact on any non-target species, and in particular those that are components of the property's Outstanding Universal Value (OUV);*

The 2021 project to eradicate the house mouse (*Mus musculus*) from Gough Island was unsuccessful.

Although the project followed international guidelines for best practice, regrettably house mice were detected on the island in December 2021 - four months after the bait-laying operation had been completed. Further monitoring has detected breeding in the remaining house mice population. Consequently, the house mice population of Gough is now rapidly increasing.

However, the eradication did significantly reduce the population of house mice on the island temporarily. The near absence of mice during the 2021 breeding season resulted in significantly improved breeding success for a variety of seabirds, which are a component of the site's Outstanding Universal Value.

For example:

- the 2021 tristan albatross *Diomedea dabbenena* breeding success rate of 75.5% is more than double the average breeding success of 2004-2021.
- Macgillivray's prion *Pachyptila macgillivrayi* breeding success increased from 0% in 2020 to 82% in 2021.
- Atlantic petrel *Pterodroma incerta* breeding success increased from <30% in 2020 to 62.7% in 2021.
- Sooty albatross *Phoebastria fusca* breeding success increased from <40% in 2020 to 74.1% in 2021.
- Grey petrel *Procellaria cinerea* breeding success increased from <30% in 2021 to >80% in 2022.

These increased breeding successes, although likely short-lived as the mice population rises again, provide hope that time has been bought to find a permanent solution to eradicating the mice on Gough.

The project partnership is conducting an independent review of why the eradication was unsuccessful. This review will conclude in mid-2023 following collection of monitoring data on the distribution and abundance of the remaining mice, an analysis of the genetics of the remaining mice, and assessments of the protocols used in the eradication – including an assessment of how non-target species (e.g. slug species) may have unexpectedly interfered (i.e. eaten) the bait.

The review will be wide-ranging and will ascribe a probability to the likelihood of all identified factors in being a contributor to the project's failure. The project partnership has committed to publishing the findings of the review in full, whatever their outcomes. Despite this, the exact causes of the failure still may never be determined.

The endemic populations of Gough moorhens *Gallinula comeri* and Gough buntings *Rowetta goughensis*, both components of the site's Outstanding Universal Value, were assessed as being potential non-target species of the eradication. To ensure the bait application did not lead to the accidental extermination of these species, captive populations of Gough moorhens and buntings were temporarily held to protect them from consuming the baits. 95% and 99% of the captive moorhens and buntings respectively were successfully released back into the wild after the environment was deemed safe. The number of captive birds being released back into the wild far exceeded planning projections. Released Gough buntings have subsequently been observed breeding. But it has not been yet determined if the released Gough moorhens have bred due to their more secretive nature.

5. *Appreciating that progress has been made to limit the spread of the invasive plant procumbent pearlwort (Sagina procumbens), also requests that the State Party fully implement the eradication programme for this species, and also reiterates its request to the State Party to submit the review of the effectiveness of the eradication programme to the World Heritage Centre as soon as it is available;*

The procumbent pearlwort *Sagina procumbens* forms dense mats that out compete native vegetation. Experts have determined its eradication is no longer possible, hence a containment operation is now being implemented. With on-island biosecurity measures in place to prevent its further spread around the island, and regular spraying with herbicide of plants that do spread from the core area.

6. *Encourages the State Party to continue sharing its experience on invasive alien species eradication and island ecosystem management practices to promote knowledge exchange with other States Parties facing similar challenges;*

The house mouse eradication project partnership is committed to sharing its learnings from the review of the failed eradication attempt as soon as they are available in 2023. State Parties and Non-Governmental Organisations are encouraged to contact the UK Government or the project partnership if they have any specific questions in advance of the review's publication.

Two papers have already been published on the eradication attempt:

- A lesson for planning rodent eradications: interference of invasive slugs during the Gough Island mouse eradication attempt in 2021
<https://www.publish.csiro.au/wr/WR22024>
 - Detections of house mice on Gough Island approach zero within days of aerial baiting
<https://www.publish.csiro.au/WR/WR22103>
7. *Further requests the State Party to provide an update on the state of conservation of the property's values relating to biodiversity, including population dynamics of the species that are part of its OUV, and on any risks determined from the sunken fishing vessel on the OUV of the property;*

Due to the practical challenges of biological surveying on Gough Island and Inaccessible Island, it is not possible to provide detailed population dynamics of the species that are part of Gough Island and Inaccessible Island OUV. Rather, estimates of breeding success are estimated each breeding season from sampling of a subset of the nests of some of the species that comprise the OUV. The results of this monitoring have been provided in the response to paragraph 4.

No immediate risks have been identified by the State Party concerning the fishing vessel which sank near Gough Island in October 2020, however confirmation of this assessment from authorities in Tristan da Cunha is still outstanding. The State Party will update the World Heritage Committee as soon as confirmation has been received.

8. *Finally requests the State Party to submit to the World Heritage Centre, by 1 December 2022, an updated report on the state of conservation of the property and the implementation of the above, for examination by the World Heritage Committee at its 46th session.*

The State Party submits this report in response to the Committee's request.

3. Other current conservation issues identified by the State Party which may have an impact on the property's Outstanding Universal Value

Highly Pathogenic Avian Influenza (HPAI) has caused high mortality in many northern hemisphere seabird populations. Although not recorded in populations of seabirds from Gough Island, there is the possibility it may occur as northern hemisphere seabird populations migrate to the southern hemisphere for winter. Existing monitoring of the seabirds on Gough Island is likely to identify any mortalities from HPAI on Gough Island if they do occur.

As the 2021 house mice eradication programme was unsuccessful, house mice are expected to significantly reduce the breeding success of seabirds on Gough Island in the future. However, mouse predation of seabirds is a learned behaviour and it is unknown how long it may take for this behaviour to remerge within and spread across the Gough Island house mouse population.

The UK-based Non-Governmental Organisation the Royal Society for the Protection of Birds, the lead partner in the house mouse eradication project partnership, remains committed to eradicating the house mice in the future. Both the UK Government and the Government of Tristan da Cunha remain committed to supporting the Royal Society for the Protection of Birds and the wider partnership in this endeavour.

4. In conformity with Paragraph 172 of the Operational Guidelines, describe any potential major restorations, alterations and/or new construction(s) intended within the property, the buffer zone(s) and/or corridors or other areas, where such developments may affect the Outstanding Universal Value of the property, including authenticity and integrity

All equipment, including temporary accommodation and work structures, associated with the eradication attempt have been removed. The eradication project did not affect the Outstanding Universal Value of the property, including the authenticity and integrity of the property.

5. Public access to the state of conservation report

The State Party is content for the full report to be uploaded to the World Heritage Centre's State of Conservation Information System.

6. Signature of the Authority



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