

# Island Restoration News: Gough and Henderson



Working in partnership



Issue 13  
May 2023

As anticipated, fewer Tristan Albatrosses have returned to Gough to breed this year following last year's bumper 'crop'. There are still no signs of mouse attacks on Gough's albatrosses (Lucy Dorman)

## Welcome

"At some point, the predatory behaviour of the mice is expected to return....." So we wrote in February in a blog [shorturl.at/jnrH8](https://shorturl.at/jnrH8) that outlined our hopes and concerns for the coming 12 months of our Gough seabird monitoring. Readers of these newsletters will not be at all surprised that we highlighted not just expectations around the number of Tristan Albatross pairs that might return in 2023, but also the impending results of the breeding success of the MacGillivray's Prions, that standard bearer of all the smaller burrow nesting species. We reiterated that "Predation is likely to be felt by the smaller species (storm-petrels, prions, diving-petrels) first, even if we have so few windows into their nesting attempts, so this is a key dataset."

Prion Cave offers us the one really accessible window into this underground world, and the MacGillivray's Prions that nest there function as a bellwether for the interactions between mouse and smaller seabirds on Gough. During the 2022-2023 breeding season, our team installed camera traps at a number of nests within the cave to monitor for signs of the resumption of predatory behaviour by mice. Sadly, on watching through the Prion Cave footage, one camera captured precisely this. A mouse was filmed approaching a small prion chick that was maybe 2 weeks old and unguarded by its parents (not that adults have any defensive mechanisms anyway). The chick was then attacked by the mouse, later succumbing to its wounds. More detail of the fortunes of the 2023 MacGillivray's Prion cohort is presented in the blog here: [shorturl.at/pDNX2](https://shorturl.at/pDNX2)

I would be lying if I claimed that we hadn't hoped that this resumption would have taken longer to reappear. It is, however, important to maintain a grasp on the overall context: the MacGillivray's Prions still managed to raise many chicks – of the 54 monitored nests, chicks fledged successfully from 34 to give a breeding success of 62.9%; this figure is in line with average productivity rates observed from similar prion species on other islands that are free of introduced mammalian predators. Moreover, it continues to represent a step change in population recruitment for MacGillivray's Prions when compared to the average of 6% from 2014-2020 (including several years of complete breeding failure). Indeed, the fledging success of the prions, and by inference, many other smaller seabird species from Gough in the last two years delivers almost certainly a many-fold increase of population recruitment over the last few decades.

What happens next year will be just as important, as though this is not news I enjoy passing on, so little is known about the evolution of mice predation, that this all helps to build the picture of the trajectory of

pressure that remains on Gough's amazing seabirds.

These data are, of course, only possible thanks to the tireless work of our on island team – their year on island is flying by, and we are already in the middle of the recruitment for a team member to join Lucy for the 2023/24 season (applications have closed!) as only Bekah will come off in September. Thank you both. On pages 5-8 you can read more about their journey so far. As well as continued monitoring of seabirds, Lucy and whoever is lucky to join her will step up our monitoring of the Gough Moorhen population – we have written before as to how difficult it continues to be to ascertain numbers after the eradication, and although there has been a very welcome upturn in observations from the small number of camera traps we have across the immediate 2021 release areas, one of our priorities going forward must be to get a better understanding of their fortunes.

In other news, an attempt to remove cats, rats and mice from Amsterdam Island is planned for 2024, and an update on this project can be found on pages 9-10. It was on Amsterdam Island and nearby Saint-Paul Island that the MacGillivray's Prion was first discovered as a species, though tellingly, it has already been extirpated from Amsterdam by the presence of these invasive non-native predators. While RSPB is not involved in this project, we are offering to loan equipment, as we are doing, with more direct involvement, to the South African operation for Marion Island. The sharing of eradication resources remains a high, and surely sensible priority for the eradication community.

Elsewhere, preparatory work to assess the feasibility of an eradication attempt on Henderson and Pitcairn continues, engaging with the community on Pitcairn and assessing the population and foraging behaviour of Henderson Reed-warblers (see pages 3-4). But it will not be before October that we can visit the island to start trials as to what operational measures can be taken to give an eradication of the Pacific rats *Rattus exulans* the best possible chance of success. While previous reviews on the 2011 operation give us a good starting point, we will not take anything as a given, a key lesson from Gough.

The next issue of Island Restoration News will focus on lessons from the Gough Independent Review, and what we can all learn.



**Andrew Callender**  
Gough Island Restoration  
Programme Executive

## Good news from an endemic South Pacific ‘sparrow’

**Momentum is building for a potential return to restore Pitcairn and Henderson Islands. Funding from Darwin Plus sent RSPB’s Nik Aspey half a world away to find out more about the Pitcairn Reed-warbler and how it might fare during a rodent eradication operation.**

Polynesia – over 300,000 square kilometres of Pacific Ocean punctuated by 1,000 tropical islands, amongst which only one, Pitcairn, is uniquely British.

Technically part of a group of four geographically wide-spread islands including the coral atolls Henderson (~4,300ha), Oeno (~60ha) and Ducie (~62ha), as well as Pitcairn (~460ha), this extinct volcano became part of the UK due to a well-known mutiny onboard the HMAV *Bounty* in 1789. However Polynesian sailors had been travelling to this distant rock, approximately half-way between Tahiti and Easter Island, for many centuries to obtain the rare black obsidian for trade with the wider world.

Over time Pitcairn Island’s Tuamotu moist forest has been transformed by human habitation to become an archetypal tropical garden full of fruits borne under a hot sun— from the familiar coconut, mango and banana to the more obscure Soursop *Annona muricata* and Rose Apple *Syzygium jambos*.

Pitcairn’s isolation, at 700km from the nearest land, created great difficulty for species colonisation hence the island has a limited native biodiversity (only 80 higher plant species) but also one that is unique in many aspects with 10 plants that are endemic to the island. Likewise, although a handful of seabird species frequent Pitcairn Island, only one land bird is resident, the endemic Pitcairn

Reed-warbler *Acrocephalus vaughani*. Since the island lacks any reeds and the species doesn’t warble, the locals have more aptly named it the Pitcairn Sparrow.

Being so isolated, research opportunities on Pitcairn are limited. No thorough field-based evaluation of the Pitcairn Reed-warbler population size had ever been made.

Through the Darwin Initiative, funding allowed the RSPB to send me to Pitcairn for three months to create a repeatable method to assess this population size. Heading out on a dull UK autumn morning it took five days and 15,000 miles of travel by bus, train, plane and boat to reach



tropical Pitcairn, literally on the other side of the world.

Luckily for my work, the island is transected by access tracks that allowed me to create one hundred 100m transects, along which counts of ‘sparrow’ numbers enabled a baseline species density to be obtained. This could then be extrapolated island-wide to reach a current population size. As variation in density was apparent between different habitats, vegetation notes based on previous studies were collected and fed into the population model. By following the development of 50 nests, productivity levels were also assessed and placed into the model.

Early results indicate a population size of around 1000 mature individuals. As this sits

within previous remote estimations, the figure points positively towards a stable, rather than declining, population. This allows us to propose that the current globally Endangered status of the Pitcairn Reed-warbler be reduced to that of Vulnerable, and provide a small piece of good news for species conservation.

In further seemingly good news, an initial experiment to see if the birds were interested in rodent bait—which might place them at risk from any rodent eradication operation in future—found that they largely ignored it.

We hope to return to Pitcairn later in the year to continue discussions with the Pitcairn community and start pre-

operation trials on Pitcairn and Henderson to inform project planning.

## Notes from a (not so) small island

**Gough may be a small dot in the middle of the ocean, but it feels huge when traversed on foot. The two 'round-island' trips to count Tristan Albatrosses are both a challenge and a highlight of the Overwintering Teams' year. The first one is undertaken during the September 'takeover', combining the people power of two teams and availability of a helicopter to get to the far north of the island. The second is completed in January – Gough's midsummer – with the remaining team 'going solo'. Our current team members, Lucy Dorman and Bekah Goodwill, reminisce about their experiences.**

“May the low clouds be high” was an oft repeated phrase in September as we waited for decent weather to embark on the first of our 'round-island' counts. Not only does the helicopter need such a weather break, but as you cannot count what you cannot see, we needed one too!

A weather window finally presented itself and the luxury of an early morning helicopter flight. Having most recently worked in Antarctica, where the scarcity of any natural green is striking, it was the many, many shades of green that really struck me as we flew low over the island. The helicopter touched down just long enough for us to exit and find cover before it vanished against the mountainous backdrop. As we embarked uphill on almost impossibly soft

ground, and with no obvious sign of a path, the scale of the task ahead became apparent.

Our first objective was to count at Triple Peak, as the name suggests not just one but three peaks. We had spent the month of August undertaking classroom-based training in Cape Town, confined in quarantine (COVID has still not been recorded on Gough), and sailing on the S.A. *Agulhas II* so this sudden increase in physical activity was noticeable! Once on top of the ridge we were able to start our counts, but even with binoculars many of the Tristan Albatross chicks were simply small white specks on a distant slope. Then the low cloud rolled in, and by lunchtime we were reduced to focussing on the small patch of ground visible 10ft [3m] in front of us and the red track on the GPS

that would lead us to camp. To be honest the rest of the trip was a bit of a blur, very few albatross chicks were visible and we returned to base looking rather wet and bedraggled!

It was with nervous anticipation, therefore, that in early January we started planning for another extended trip up north. But standing where we had been dropped off in September, I felt a real sense of achievement – of how far Bekah and I had come, both physically (having walked from Base this time) and also our journey in the 159 days we had spent on the island since we were last in that spot.

The goal of the summer round-island is to count the number of incubating Tristan Albatross.

We both count and then we compare numbers; if we are significantly off, we try again often asking 'Did you see that one?', while attempting to point or describe a very specific nest in the vast landscape. It was hard not to get distracted by birds cruising out to sea or effortlessly gliding back inland to relieve their partner of incubation duties. With a wingspan of up to 3m, the Tristans are significantly larger than the other albatrosses that breed on Gough, the Atlantic Yellow-nosed and Sooty, each with a wingspan closer to 2m.

Our base for three nights was Waterfall Camp, an aptly named flat piece of ground beside a small waterfall. During the previous trip this had been a tight squeeze with three tents on very waterlogged turf and five people sheltering in a shallow cave. This time around we were able to use our small stove to cook out in the extended summer evening light and we indulged in chocolate biscuits that had been safely stored for us by our predecessors – a very welcome surprise!

Our route took us over Windy Ridge and the Rowetts, a spectacular high ridge line that transects the middle of the island. There was not even a breath of wind, and at times the silence was deafening, punctuated only by the high-pitched chatter of juvenile Gough Buntings whose curiosity provided company if we stopped for a snack or a photo. During 'takeover' we had walked this section in dense cloud, buffeted by strong winds. This time my eyes were drawn down to The Glen, a spectacular, lush valley that ends in a sheltered beach where the Gough Island Scientific Survey party had landed back in 1955. I had read their account of time spent surveying and mapping on Gough and tried to imagine the additional challenges of exploring the island without local knowledge passed through field teams and our GPS device with walkable routes plotted in.

We also passed Hag's Tooth, a trachytic plug filling an old volcanic vent, with the towering dark rock a stark contrast to the surrounding green. Returning, we approached Gonydale, and soaked in views from a new perspective – a moment to pause and appreciate the scale of the valley with which we have become intimately

familiar from our regular monitoring of the albatross colony there (but which we usually approach from the south). We made the most of the moment to watch some late albatross courtship – pairs of birds in an open area, wings outstretched, moving in a circular motion with seemingly choreographed steps. As we descended the slope and moved closer to the colony the bizarre and somewhat mesmerising clicking and clacking that accompanies the courtship stopped us briefly in our tracks. Stopping at our regular Gonydale Camp spot for a cup of tea we got to expose our wrinkly feet, encased for the last four days in our wellies, to the warmth of the sun whilst we dried them and our tent out before walking the last couple of hours back to Base!

*Lucy Dorman*

*RSPB Field Team Leader, G68*

A total of 948 incubating Tristan Albatross pairs were counted across Gough in February 2023 (poor weather delayed this year's trip).

A stunning view of Hag's Tooth and The Glen (*Kate Lawrence*)



## Gough Island | 7

I will never forget my first round-island, it was at the end of a crazy takeover, I was suffering from a cold and was wondering what I had let myself in for. Yet when the helicopter flew us past the snow-topped peaks of Edinburgh and Expedition any doubt that I might have had was blown away. The sight of the spectacle that was Gough Island was breath-taking, though sadly short-lived: the fog descended a few hours later and any hope of seeing more of this beautiful island was dashed. My last memory before the fog was Vonica [G67 Field Officer] leading me towards what I can only describe as a ravine, and her promise 'It is crossable!' ringing in my ear.

With every gully that we crossed and with no way of seeing how much farther we had to go, my legs got heavier and heavier. Then we met Mildred's Mire. I thought I was good with bogs, and I was experienced with them having come from RSPB Forsinard (part of the largest expanse of blanket bog left in Europe). Despite never falling in a Scottish bog, Mildred's Mire got me on my first step! When you

are already tired, trying to extract yourself from a bog is hard work. The more you try to extract one leg the further the other sinks in; if you're unlucky and it's gone above the top of your wellies then you can expect cold water to seep in, too. After falling in several more bogs along the way, I was wet, cold, and exhausted by the time we arrived at Waterfall Camp. I wasn't overly excited by the prospect of round two.

The big day was always going to be the day that we covered the very far end of the island. We had no helicopter this time, no separate teams, we just had ourselves. Despite knowing how hard it was going to be, this was the day that I was looking forward the most – seeing a part of Gough that I had never seen before. Walking through the cloud, not much was visible when we headed out towards Triple Peak. It's an odd sensation being in cloud, you cannot see beyond a few meters and you cannot tell which way you are heading, so you have to trust fully in the GPS to guide you. It is eerily quiet and also so wet – before long, everything is soaked. We carried on,

hoping the cloud would lift before we did our first Tristan Albatross counts, hoping that the promised sunshine would appear.

False Peak and I have a history, or so I feel. Apart from a few small glimpses it has always been surrounded by cloud and mystery. When we approached this second time, it felt no different. With a sense of *deja vu* we were sat there once again, with binoculars in one hand and a snack in the other just waiting for the briefest of gaps in the fog to count the albatrosses. A curious Gough Bunting investigated the bottom of our boots for invertebrates and seeds. Their inquisitive nature and high-pitched whistling call makes them so different from any other bird around. And although they are found all over the island, it never fails to brighten the day when you hear or see one hopping towards you.

When the weather gap came, our snacks were forgotten. We jumped up, abandoning everything, and practically ran around the end of False Peak to do the count before the

cloud returned. Roughly 10 minutes later we were done – an area that had taken three attempts on the first round-island, we had completed in a flash. It didn't seem to matter that there was still most of the island left to cover, I could finally see False Peak and Mildred's Mire, an area that had been a mystery for so long was now clear. Surely a sign that this round-island was going to go well.

The next day, the weather was once again on our side and standing atop of Sen-Hen Crag – an area that reminded me of a Scottish Loch surrounded by colourful sphagnum moss – the cloud started to lift. A magnificent gully appeared to our right and the calling Tristan Albatrosses that we had been listening to appeared before us, small white dots among a grand landscape. The sea shone in the distance, and we could feel the sun's warmth on us. Everywhere I looked there was something new, on one side the deep gullies that I can only associate with Gough, a mismatch of thick vegetation heading down to the sea, and behind me the towering peaks of the island.



Waterfall Camp—a welcome sight for the team during the round-island counts (Fabrice Le Bouard)

But it was when we walked through Barren Dome that I felt like I was transported to a different place. The ground is solid for a start, made up of rocks you can actually walk normally on. Very little vegetation grows here so there is no fighting through plants to contend with, but what I remember most was the stillness. There was no wind, nothing. The silence rung in our ears; the only sound was our footsteps against the ground. When we stood still there was nothing, not even the call of a bunting.

For me Gough is bird calls, it is wind – to have neither felt like I had been transported to a barren, lifeless land. This illusion was soon broken as quickly we were back in the wet heath habitat of Tarn Moss, and to sinking into the ground with every step we took. Our epic day of starting at sunrise and walking until sunset was done and I figured if I could do this then I can achieve anything!

Bekah Goodwill,  
RSPB Field Officer, G68



Now you see it, now you don't: mist descends on Gough Island (Kate Lawrence)

## Amsterdam Island—new hope for MacGillivray’s Prion

Whilst most of the world’s Critically Endangered MacGillivray’s Prions breed on Gough, they were first described from Saint-Paul and Amsterdam Island, a quarter turn of the globe away. Now extinct on Amsterdam—most likely due to the introduction to the island of rats, cats and mice — there are hopes they will return once the island is restored. A loan to the RECI project of two bait buckets from the Gough Island Restoration Programme is on the cards. Fabrice Le Bouard (RECI Programme Technical Manager and formerly of the Gough Overwintering Team) explains more.

### Introduction to the territories

The French Southern and Antarctic Territories (TAAF) are a French overseas territory that stretches from the Antarctic continent to the tropics: Terre Adélie in Antarctica; Amsterdam, Crozet and Kerguelen in the southern Indian Ocean; Bassas de India, Tromelin, Glorieuses, Juan de Nova and Europa in the Mozambique Channel.

Classified as national nature reserves in 2006, Crozet Archipelago, Kerguelen Islands, and Saint-Paul and Amsterdam Islands are the largest of the few land masses in the southern Indian Ocean. Far from human activities, they remain biodiversity sanctuaries and are home to one of the highest seabird

concentrations and diversity in the world, as well as one of the largest populations of marine mammals. These islands and the surrounding seas have been internationally recognized by the inscription in 2019 of the French Austral Lands and Seas on the UNESCO World Heritage List.

### The restoration of island ecosystems in the Indian Ocean (RECI project)

For TAAF and their preserved ecosystems the decrease of the seabird, invertebrate and native flora populations is mainly linked to the presence on the islands of invasive alien species, be they animal or plant. In response to these challenges, the RECI project "Restoration of island ecosystems in the Indian Ocean" aims to fight the impact of introduced

mammals in the Eparses Islands, the Austral and the M'bouzi islet in Mayotte (another French overseas territory). The project is implemented for a 5-year period (2019-2025) in partnership with the Mayotte Naturalists Association. Its funding is mainly provided by the European Union through the 11th European Development Fund for Overseas Countries and Territories, via funds delegated to the French Development Agency.

### Amsterdam 2024: main restoration action

Due to its isolation and remoteness, Amsterdam Island (55 km<sup>2</sup>) is a sanctuary for flora and fauna. Ecosystems that have developed under specific climatic conditions have

unique characteristics, including high endemism and unique adaptations. Amsterdam is the breeding site for the Amsterdam Albatross *Diomedea amsterdamensis*, the rarest endemic species of albatross in the world; the island is home to 70% of the Indian Yellow-nosed Albatrosses *Thalassarche carteri* and the only Indian Ocean population of Northern Rockhopper Penguin *Eudyptes moseleyi*. In addition, the Phylica Tree *Phylica arborea* is present as the only native tree of the French Southern Territories.

However, Norway rats *Rattus norvegicus*, House Mice *Mus musculus* and Cats *Felis catus*, introduced over the past centuries to Amsterdam Island, have inflicted severe ecological damage and continue to seriously impact the biodiversity integrity. They predate seabirds' eggs and chicks and are also vectors of avian cholera. These two pressures are leading to a decline in bird populations and threatening their conservation. The rodents stop the natural regeneration of Phylica, too, and put the island's invertebrates at risk.

Amsterdam Island is considered one of the eight islands in the world where the eradication of these invasive populations could feasibly be initiated quickly and would have the most benefits in terms of biodiversity conservation (Holmes *et al.* 2019). Indeed, the eradications of mice, rats, and cats will reduce the risk of species extinctions and contribute to the restoration of terrestrial and coastal ecosystems. Apart from the conservation gains, other benefits are expected such as skills and

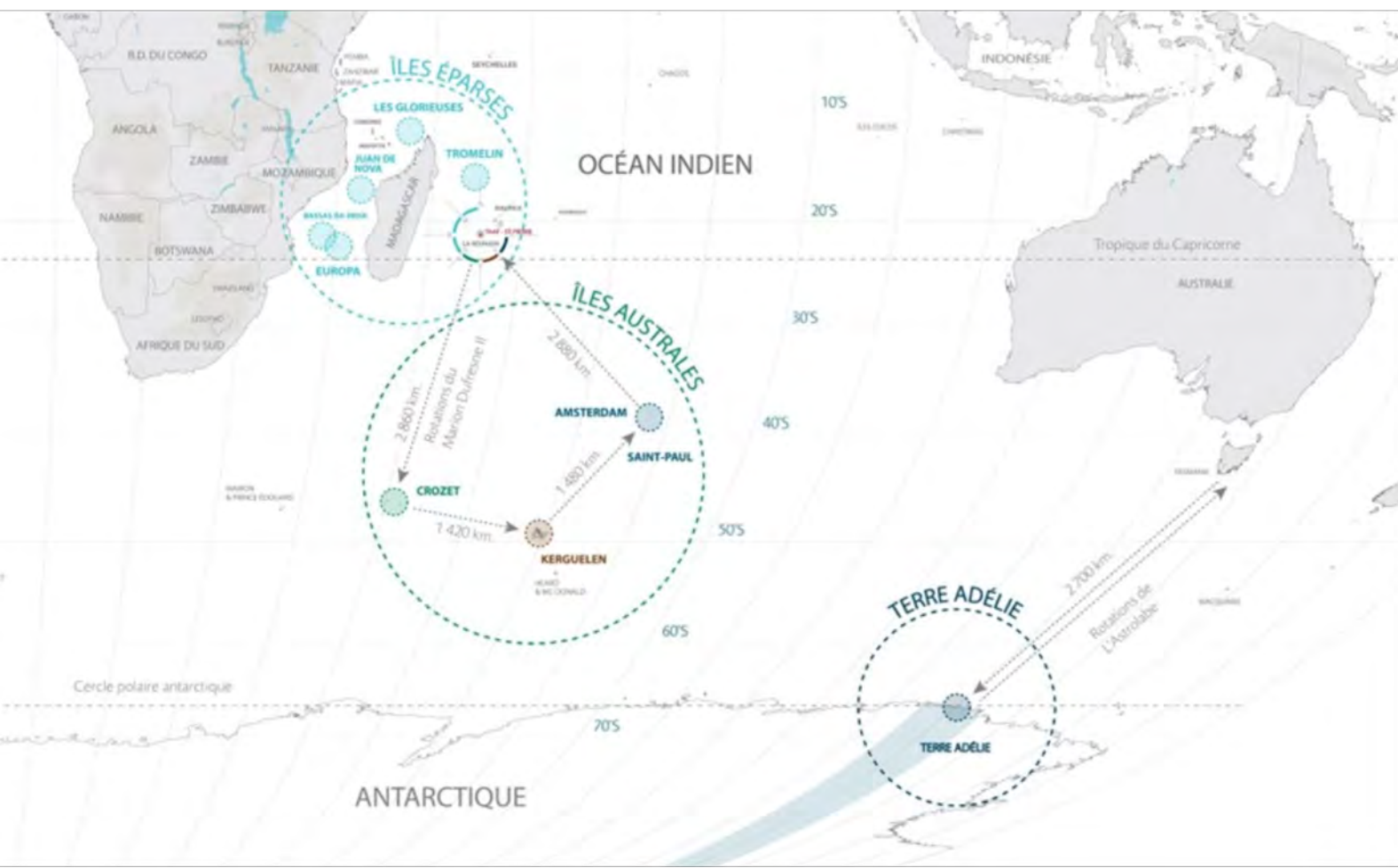


capacity development within TAAF and partnership-building with national and international partners. The successful eradication of these invasive species would contribute to national and international biodiversity commitments. It would also reduce the risk of incursion in other islands within TAAF territory currently free from these invasive species.

This is why TAAF will deliver an operation to eradicate rats, mice and cats from Amsterdam Island in 2024. This operation will consist of spreading rodenticide by helicopter over all of the 5,500 ha of the island. The preparatory phase (2019-2023) made it possible to frame this action through a feasibility study, a biosecurity strategy, a risk management plan and a monitoring plan. Currently, the team is working on the operational plan as well as the ordering of bait and equipment.



More information about the RECI project: <https://shorturl.at/aqARX>



Above top: The world’s rarest albatross, the Amsterdam Albatross—the current population is estimated at 92 mature individuals (TAAF)

Above: This Indian Yellow-nosed Albatross chick has suffered a rodent attack (Jordan Bazile)

Left: Map of the French Southern and Antarctic Territories (Bruno Marie)

Holmes, N. D. *et al.* (2019). Globally important islands where eradicating invasive mammals will benefit highly threatened vertebrates. *PLoS One*, 14(3), e0212128.

# Acknowledgements

We would like to thank all of our funders and supporters, both organisations and individuals alike.



forestry, fisheries  
& the environment  
Department:  
Forestry, Fisheries and the Environment  
REPUBLIC OF SOUTH AFRICA



HM Government



ISLAND CONSERVATION

Preventing Extinctions



Manaaki Whenua  
Landcare Research



THE WILDLIFE CONSERVATION CHARITY



NFWF

Jephcott Charitable Trust

John Ellerman  
Foundation

the David  
Lucile &  
Packard  
FOUNDATION



LUDWICK  
FAMILY FOUNDATION

Garfield Weston  
FOUNDATION

## Contact

If you would like further information about the Gough and Henderson Island Restoration Programmes, please contact

**Sophie Thomas** RSPB, Seabird Island Restoration Project Manager

**Email:** [goughisland@rspb.org.uk](mailto:goughisland@rspb.org.uk)

**Tel:** + 44 (0) 7540 121465

**www.goughisland.com**

**@goughisland**

**www.rspb.org.uk**

Cover image: A non-breeding 'club' of Tristan Skua *Catharacta antarctica hamiltoni* (Michelle Risi)



The RSPB is a member of BirdLife International, a partnership of conservation organisations working to give nature a home around the world.