

Saving Marion Island's Seabirds™

The Mouse-Free Marion Project



A Pearler of a Year

Elsa van Ginkel (M79) writes about her year on Marion Island, gem of the Southern Ocean

World's most iconic seabird under attack

Grim reports of adult Wandering Albatrosses at risk from invasive mice

Global support for the Mouse-Free Marion Project

QUARTERLY NEWSLETTER



Photo: Anton Wolfaardt

Welcome

to issue No. 6 of the Mouse-Free Marion Quarterly Newsletter

The Mouse-Free Marion (MFM) Project is an ambitious and unusually high-impact conservation initiative that aims to prevent the deaths of millions of seabirds, helping to secure a positive future for the iconic Wandering Albatross, the many other seabirds that call the island home, and the ecological integrity of this remarkable South African sub-Antarctic island. This is the ultimate objective of the MFM Project. The removal of mice from Marion Island will represent a significant and lasting conservation legacy.

The planning and preparatory phases of island eradication operations are critical

and together comprise the longest component of such projects. Detailed and rigorous planning at this stage enhances the likelihood of a successful eradication, by ensuring the operation goes as smoothly as possible once on the island. Island eradication operations are complex endeavours that comprise a mix of scientific research, applied eradication strategy, logistical and operational planning, regulatory compliance, fundraising, and public relations. The MFM Project Team is currently busy progressing all these elements to ensure that we maximise the likelihood of success and achieve our ultimate objective.

The technical planning for the MFM Project builds on a solid foundation of successful preceding operations and is informed by internationally agreed best

practice principles. Our approach is not novel but based firmly on established practices employed successfully on other islands over several decades, modified to reflect the unique circumstances of Marion Island and the MFM Project.

In order to assist us with the task, I am pleased to welcome two new members of the MFM Project Team, both of whom joined the project in April. Dr Sue Tonin (née Jackson) joined the team as the Assistant Project Manager and Ms Tarryn Havemann (née Retief) as the MFM Project Development Officer. Both Sue and Tarryn have already become valuable members of the MFM Project Team.

We have also significantly increased our international fundraising capacity. Securing sufficient funds to proceed with the project remains one of our most significant challenges. Eradication projects on large, remote islands require a sizeable budget which, in the case of the MFM Project, is approximately US\$25 million. It is important to reflect that this represents a once-off investment for significant ongoing conservation gains. The MFM Project represents a rare opportunity to solve a conservation threat, rather than simply reducing or mitigating it. An investment now will continue to pay dividends in perpetuity. Your donations can make the difference between the successful eradication of invasive mice from Marion Island, and a lost opportunity to conserve the island's remarkable biodiversity.

To assess and monitor the ecological outcomes and recovery associated with the mouse eradication initiative, it is important to collect pre-eradication

Right above: Elsa van Ginkel and Camilla Smyth at Swartkop on the west coast of Marion Island
Right below: Elsa and Camilla conducting a vegetation survey on the coast

(baseline) data on various components of the ecosystem. This is precisely what the MFM Project's Research Assistant, Elsa van Ginkel, has been doing on Marion Island over the last year. Elsa has recently returned from the island, having passed on the baton to Camilla Smyth. Elsa tells us all about her work and adventures in this edition of our newsletter.

During the recent annual relief voyage to Marion Island, Dr Maëlle Connan and her team from the Nelson Mandela University recorded a number of dead adult Wandering Albatrosses with evidence of mouse attack wounds. This observation is the first record of adult Wandering Albatrosses being killed by mice and is cause for considerable alarm. While we have known for some time that mice are significant predators of seabird chicks, the death of each adult Wandering Albatross is an



even more serious loss for the population, as the sustainability of albatross populations is reliant on high adult survival rates of these long-lived birds. These recent observations at Marion Island provide further impetus for the eradication of this invasive predator.

Endorsements and support from organisations, authorities, media outlets and others help raise the profile of the project, so that it is seen as a worthwhile investment on the global stage. The MFM Project is pleased to have recently received additional support from within South Africa and internationally. In her recent budget speech to the South African Parliament, the Minister of the Department of Forestry, Fisheries, and the Environment (DFFE), Barbara Creecy, specifically mentioned the importance of the MFM Project and government's support for it. The MFM Project was also endorsed by the international Agreement on the Conservation of Albatross and Petrels

(ACAP), at its Advisory Committee meeting in May this year.

We have a great deal to do before we can undertake the actual eradication operation, and urgently need to raise the outstanding funding required. We are working hard to ensure that the MFM Project has the best chance of success so that we can safeguard the future for Marion Island and the globally important seabirds who breed there.

It is through continued collaboration, and your support, that we can achieve this outcome. If you would like to find out more about the project and ways to support it, please visit our website (www.mousefreemarion.org) or contact Heidi Whitman, the Mouse-Free Marion Project's Chief Philanthropy Officer (heidi.whitman@mousefreemarion.org).

Dr Anton Wolvaardt
MFM Project Manager

Below: Grey-headed Albatross chick at Grey-headed albatross ridge. Photo; Anton Wolvaardt



Photo: Anton Wolvaardt

A 'PEARLER' OF A YEAR

My Year at Marion Island, Gem of the Southern Ocean

By Elsa van Ginkel, Marion 79

One of the most exciting years of my life began with a voyage across a vast stretch of turbulent open ocean, through the rough seas known as the 'Roaring Forties', to what is arguably one of the last known wildernesses. This last year on Marion Island was the ultimate adventure: a sub-Antarctic island in the middle of the Southern Ocean, one of the most remote places on earth. I spent 14 months with only 19 other people, I had no modern conveniences like cars or shops, and my primary mode of transport was my own two feet. I undertook critical conservation research while experiencing nature in its purest form. This was an experience like no other, something that is definitely not everyone's cup of tea; but to a special few, this is what gives life meaning!

There is something exhilarating about going back to a place that you thought you would never see again... but 'never say never'.

I am one of the fortunate few who has spent a year on Marion Island, and I was even more privileged in that I got to do it twice! The M79 Marion Island Overwintering Expedition was my second 14-month cycle within a period of six years. This time around, I fulfilled the role of Ecologist for the University of Pretoria and the Mouse-Free Marion Project. My work included bait

trials focused on mouse activity and behaviour, as well as detailed surveys focusing on the range of invertebrate and plant species found across the different habitats. The mouse activity work was fascinating and enabled me to become increasingly more comfortable with field cameras. As I'm keen on photography, I truly enjoyed learning this new set of skills. Additionally, scanning through the mouse footage and observing their behaviour, kept me entertained for hours each month during the winter. I found the plant and invertebrate section of the work stimulating also, because once you became focused on a certain species or aspect, new questions would arise... I think that's the beauty of being a researcher. The questions never stop and thus the work can continue. That is tremendously rewarding... and that is why, as ecologists, we love what we do.



Left: Lucy Smyth (left) from the Marine Apex Predator Unit and Elsa. Below: Macaroni Penguins at the Amphitheatre near Swartkops



Marion Island has so much to offer. If I had to take a glance at my years' experience, I would not be able to single out a specific event as my favourite... On Marion, it is the collection of small enjoyable moments that made the majority of the island experience an unforgettable one! As I lived and worked within this awe-inspiring and dynamic environment, I had the opportunity to experience the life cycles of most of the plant and bird species, as well as the three seal species occurring on the island. I learnt to appreciate the natural environment on an entirely different level, experiencing fauna and flora up close and in extreme detail on a daily basis.

The plant species exhibited a visible change over the summer months. The coastal and midland regions (dominated by wetland and slope habitats) became a brighter shade of green. A coastal daisy, called *Leptinella plumosa*, filled the air with a sweeter scent than the usual penguin and seal odours that tend to overwhelm the senses along the

coastal regions. Another little treasure along the coast was the Antarctic Buttercup *Ranunculus biternatus*, which appears out of nowhere in-between the mirey, mossy patches along the coast. The Kerguelen Cabbage *Pringlea antiscorbutica*, which is generally found along streambanks or at the foot of scoria hills, also has a beautiful display when in flower. The majority of the grass species appear only later during the flowering season, creating lovely displays towards the end of the expedition, during January to April.

The Wandering Albatross *Diomedea exulans* is a good example of one of the incredible life cycles I was privileged to see to completion. When we arrived on the island in April, the plains were decorated with small white fluffy dots – the chicks of this wide-ranging pelagic species. As the year progressed, these small dots became larger and larger until most of their white downy coat was replaced by dark brown juvenile feathers. By November, most of these juveniles had started testing their

Below: King Penguins at Ship's Cove

Right: Wandering Albatrosses display their impressive wings during courtship



flight ability and by late December, most of them had taken to the sea. Their empty nests made you feel rather nostalgic, but soon after these nests emptied, the new breeding pairs made their appearance. The courtship displays of these majestic albatrosses are spectacular. The two individuals of a pair dance around each other, moving their heads elaborately from side to side. Their wings are outstretched towards the heavens and they clatter their bills. At the end of such a demonstration, they throw their heads back, bills pointed towards the sky and emit a loud screech. After the pair has established their bond, nest building follows and then the new cycle begins.

Additionally, an interesting observation throughout the year was the change in the bird calls heard at night. When you find yourself outside at night, for whatever reason that might be, it feels as if the ground comes alive underneath your feet. You hear this amazing chorus of bird calls rising from the ground, yet you can't see any of them. Soon after the *S.A. Agulhas II* vanished on the horizon at the end of take-over, so did the calls of the Grey Petrels *Procellaria cinerea*. During the summer months, the calls of the White-chinned Petrels *P. aequinoctialis*, especially at the Mixed Pickle Cove Hut (located in the northwest of the island), were quite the cacophony. At the Swartkops Hut (in the

southwest), during May, the sound of the Blue Petrels *Halobaena caerulea*, were distinct at night. The most common call that was heard throughout the year, was that of the Salvin's Prion *Pachyptila salvini*. Of course, there are many species that I haven't mentioned, although certainly present at night. Some species were just more audible than others.

Some of the smaller, yet captivating moments, included a swallow sighting and a few butterfly sightings of the Painted Lady *Vanessa cardui*. In addition, I also found a Grey-backed Storm Petrel *Garrodia nereis* one morning, on my walk to a vegetation plot.

In addition to observing the magnificent life cycles of all these species, I also enjoyed assisting some of the other field personnel when I had the chance to do so. Supporting colleagues with the banding of the Wandering Albatross chicks was one of my ultimate favourite moments and aiding the sealers with their pup-weighs on occasion, accounted for a large number of happy memories. The hut life and the experiences obtained alongside my fellow field workers was definitely on the top of my list of highlights.

This year on Marion Island was certainly a memorable one. On Marion, life lessons come in many forms, and these are learnt in short periods of time. Personal and

professional challenges occur that you would likely not experience in everyday life on the mainland. These are frequently disguised as extreme weather phenomena, unforeseen personal injuries or often just the seasonality or time constraints related to your field work. Finding common ground was an important lesson during this year, as the M79 Overwintering Team consisted of a group of individuals from an interesting variety of backgrounds. In order to create a productive working space on an isolated island, while living and working with a small team for a long period, you have to adapt, set boundaries and carry on with your work. Patience is a virtue – even more so, in such a remote setting; and even though you need to be extremely fit to conduct the field work, mentally you need to be equally as strong.

If I had to use one word to summarize what I felt when it was just me, the island and my thoughts... it would be, 'FREEDOM'. You feel an immense sense of freedom while out there, conducting your work. In a way, Marion gives you the opportunity to experience yourself in your purest form - what you are like when you are truly alone. It also proves to yourself, that you are much stronger than you could ever have imagined. All you need to do, is to keep going, one foot in front of the other. That's how you will reach your destination.

On top of this freedom, I loved every moment I spent hiking and birding, while simultaneously working. What an experience...

Below: Views in the southern part of Marion Island.



Below left: A Grey-backed Storm Petrel.

Below Right: Unusual sightings also included a rare visit from a Leopard Seal at Ship's Cove.



It was such a privilege to be part of the Mouse-Free Marion Project. This conservation initiative is of utmost importance – now more than ever. The detrimental effects of mice on the island ecosystem are starting to show across most habitats. Mouse burrows were often visible at the foot of Wandering Albatross nest mounds and, as all bird species nest at ground level on Marion Island, it is impossible for them to avoid these mouse attacks. My bait availability trials often took me to sections of the island that not everyone gets to see and even within these infrequently visited localities, mice impacts are visible. The *Azorella selago* cushion plant, one of the keystone species on the island, show clear signs of mouse damage along the coastal areas and up to ~ 450 m above sea level. Mice typically burrow into these cushions and as soon as the core of the

plant is damaged, it rarely recovers. Seed predation by mice, where single seeds or more often entire seed heads are removed, was often observed. During my year it was concerning to see that within several of the vegetation plots I established, the majority of the seed heads within the plots were bitten off even before the flowering season ended. Furthermore, in April 2023, shortly before I left the island, colleagues recorded for the first time fatalities of adult Wandering Albatrosses due to mouse predation. These impacts emphasize the importance of the Mouse-Free Marion Project.

It is imperative that mice are removed from Marion, to restore and conserve the fauna and flora of this enchanting sub-Antarctic island.



*Below: A brown Skua, one of the more common birds at the island.
Top right: Icy mountains of Swartkops
Below Right: Junior's Kop on the way to Katedraal hut.*





WORLD'S MOST ICONIC SEABIRD UNDER ATTACK

Reports of invasive house mice preying on adult Wandering Albatrosses at Marion Island

During the April-May 2023 Marion Island relief voyage, a team of seabird researchers, led by Dr Maëlle Connan from the Institute for Coastal and Marine Research at Nelson Mandela University, came upon a gruesome discovery. Several dead adult Wandering Albatrosses had been found at one of their breeding colonies on Marion Island. The eight carcasses were located close to one another, with the deep wounds that are indicative of mouse predation. The surrounding blood pattern suggested that the injuries had been sustained while the birds were still alive. While mice are known to attack Wandering Albatross chicks and adult Northern Giant Petrels on Marion Island, the startling discovery of adult Wandering Albatross carcasses was

immediately met with concern as it is the first record of adult Wandering Albatrosses being killed by mice.

The discovery that mice have resorted to attacking the largest seabird in the world is devastating news for the already vulnerable Wandering Albatross population at Marion Island. The first known attacks by mice on seabird chicks were recorded in 2003. In the two decades since, research and monitoring has shown that 19 of the 28 seabird species breeding on the island are threatened by house mice. Mice are highly adaptive generalists and are able to rapidly learn new behaviours. Marion Island is not the first island at which adult albatross deaths due to mouse predation have been recorded. On Midway Atoll in the North

Pacific, adult Laysan Albatrosses are known to be attacked and killed by invasive mice while an adult Tristan Albatross has been killed on Gough Island in the South Atlantic Ocean. Marion Island is a stronghold for the species, with a quarter of the global Wandering Albatross breeding population, and the death of each breeding adult Wandering Albatross is a serious loss for the population. A sustained increase in adult mortality, either by direct predation or by facilitating predation by other birds, will expedite their path to local extinction.

The news of these attacks was shared with the public on 19 June, the week before World Albatross Day. Articles relating to the incident featured in two prominent publications, both authored by science journalist, Leonie Joubert. The Daily Maverick published '[Fatal mouse attacks on adult birds spark red alert at world's biggest wandering albatross colony](#)' while Nature Africa featured '[Mice preying on adult](#)

[albatross population in major global nesting site](#)'. There is hope that this press will bring renewed public support for the efforts to raise the funds needed to restore Marion Island for its seabirds.

The work by Dr Connan and the team on Marion Island adds to the growing body of evidence of the devastating impacts mice are inflicting on the ecology and seabird populations of Marion Island. Dr Connan's team is in the process of finalising a publication for a peer reviewed scientific journal reporting these findings. This new discovery makes it even more imperative that we complete the planned eradication effort. We need your help to raise the funds to complete the project. If you can help, please contact a member of our team at info@mousefreemarion.org.

Robyn Adams, MFM Communications Officer and Project Assistant

Below: The horrific impacts of mice attacks on adult Wandering Albatrosses at Marion Island, photo: Anton Wolfardt



Global support for the Mouse-Free Marion Project

Ten nations and the South African minister for the Department of Forestry, Fisheries and the Environment show their support for the MFM Project

At the recent ACAP meeting, held in Edinburgh, Scotland, UK in May, its Population and Conservation Status Working Group (PaCSWG) considered an information paper submitted by the Mouse-Free Marion Project and co-written by Dr Azwianewi Makhado (Department of Forestry, Fisheries and the Environment, DFFE) and Dr Anton Wolfaardt (MFM Project Manager). Their paper sets out the background and need for the project that aims to eradicate House Mice on Marion Island and reports on its current status. It ends by inviting the PaCSWG, ACAP and ACAP Parties "to follow our progress, and endorse and support the MFM Project which aims to achieve a more

favourable conservation status for Marion Island and its globally important seabirds, including eight ACAP-listed species". Following discussion, the PaCSWG recognised that this is a key project at a major global breeding site and urged all who could support the work to do so. The recommended that the ACAP Advisory Committee endorse and support the MFM Project.

ACAP's Advisory Committee had already declared in 2019 that a conservation crisis continues to face its 31 listed species, with thousands of albatrosses, petrels and shearwaters dying every year because of fisheries operations and from other threats,

including from introduced predators at breeding sites. now, at the 13th Meeting of the ACAP Advisory Committee (AC13), a presentation of the PaCSWG report from its Convenors that inter alia drew attention to its recommendation on the MFM Project. Following discussion among the ten Parties present, AC13 agreed to endorse and encourage support for the MFM Project, reiterating its importance.

The international support received from ACAP means that all the Parties to the Agreement have endorsed the MFM Project. These include those nations that hold breeding populations of one or more of the eight ACAP-listed species of albatrosses and petrels that breed on Marion Island. These Parties are Argentina, Australia, France, Chile, New Zealand and the United Kingdom. [Read more about this on the MFM website here.](#)

Endorsement by these nations joins support for the project within South Africa, recently confirmed by Ms Barbara Creecy, Minister of DFFE in her budget speech to South Africa's Parliament on 19 May. In her speech she singled out the MFM Project for special mention stating:

"The critically important Mouse-Free Marion Project, undertaken in partnership with BirdLife South Africa, aims to restore Marion Island, a Special Nature Reserve and Ramsar Site Wetland of International Importance, by eradicating invasive house mice from the island. Provided BirdLife SA can raise the remaining funding from a range of interested international donors, this ambitious project is envisaged to be completed in 2025."

The Minister further stated in her address that "The first phase of removing the original, and now abandoned, meteorological research station above will commence in October this year". Removal of the abandoned buildings above



Above Picture: Ms Barbara Creecy, Minister of Forestry, Fisheries and the Environment

Transvaal Bay, unoccupied since 2010, has been identified as an important precursor to the 2025 baiting operation, as they could continue to harbour mice protected from aerial broadcast of the rodenticide bait. Keith Springer, MFM Operations Manager, stated that "This is good news indeed. Removing the old station before the aerial baiting commences will remove a significant risk encountered in our planning, obviating the need for hand broadcasting bait in every nook and cranny of the increasingly decrepit buildings." [Read more about the minister's endorsement here.](#)

*John Cooper
MFM News Correspondent*

Below: Delegates attending the Thirteenth Meeting of the ACAP Advisory Committee outside Queen Elizabeth House, Edinburgh, Scotland; photograph by Bree Forrer



The Mouse-Free Marion Project celebrates World Albatross Day and World Oceans Day

In June, the Mouse-Free Marion (MFM) Project Team observed two global days celebrating the environment. These events formed part of the MFM Project's commitment to ensuring that Marion Island, its incredible species and the need to restore invaded ecosystems are brought to the forefront of conservation priorities in South Africa and the world.

World Oceans Day on 8 June is a United Nations sponsored initiative to celebrate and raise awareness about global issues facing the health of our oceans. The

Department of Forestry, Fisheries and the Environment (DFFE) hosted an Open Day from 8-11 June 2023 as part of its celebrations and awareness-raising efforts for World Oceans Day. The event took place in Cape Town Harbour aboard South Africa's modern Antarctic research and supply vessel, the *S.A. Agulhas II* (moored at East Pier in the V&A Waterfront), and in the adjacent DFFE cargo packing store. Along with South African National Antarctic Programme stakeholders, the MFM Project exhibited in the store and attending members of the Project Team interacted with visitors. [Read more on our website.](#)



Above Picture: Dr Sue Tonin, Assistant Project Manager, John Cooper, News Correspondent and Robyn Adams, Communications Officer and Project Assistant with the Mouse-Free Marion Project display on World Oceans Day at East Pier in Cape Town Harbour; photograph by Anche Louw

World Albatross Day was celebrated by the MFM Team and supporters on 19 June. Established by the Agreement on the Conservation of Albatrosses and Petrels (ACAP), World Albatross Day is a day to raise awareness of the conservation crises faced by the 31 species of albatrosses.

To mark the day, the 2023/24 Overwintering Team (M80) on South Africa's sub-Antarctic Marion Island posed with a MFM Project banner. The entire 19-strong team gathered for the photograph, including Camilla Smyth, MFM Project's current Research Assistant on the island, and long-time project supporter, Michelle



Above: The Marion team display their World Albatross Day banner with a snow-topped Junior's Kop behind; photograph from Michelle Risi (fourth from left, standing)

Right: The theme of World Albatross 2023 was plastic pollution, a threat being faced by all species worldwide including at Marion Island. Bottles were collected on Marion Island's beaches by 2022/23 overwintering researcher, Lucy Smyth.



Risi, who designed and helped make the banner. [Read more on our website.](#)

Four species of albatross breed on Marion Island, including one quarter of the global population of Wandering Albatrosses. Besides Wandering Albatrosses, the island is a stronghold for Grey-headed, Light-mantled and Sooty Albatrosses. However, at Marion Island, albatross chicks reaching adulthood is not a certainty. All four albatross species are threatened by mouse predation, that leads to mortalities of both chicks and adults.

The MFM Project aims to restore the natural ecosystem and biodiversity of the island to ensure that invasive mice will no longer threaten the island's albatrosses.

Robyn Adams (MFM Communications Officer and Project Assistant) and John Cooper (MFM News Correspondent)



Wandering Albatross chick, photo: Michelle Risi

Get involved and help make a mouse-free Marion possible!

- For more information on the Project, visit our website at mousefreemarion.org or contact us at: info@mousefreemarion.org
- To make a gift of any amount or support the project by sponsoring a hectare (or more) visit our website or contact Heidi Whitman, Chief Philanthropy Officer: heidi.whitman@mousefreemarion.org
- Stay up to date: follow us on Facebook (Mouse-Free Marion) and Instagram (@mousefreemarion) or sign up on our website to receive project news alerts

Cover Photo: Sooty Albatross, photo: Elsa van Ginkel

Saving Marion Island's Seabirds™

The Mouse-Free Marion Project



forestry, fisheries
& the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

The Mouse-Free Marion Project is a registered non-profit company (No. 2020/922433/08) in South Africa, established to eradicate invasive albatross-killing mice on Marion Island in the Southern Ocean. The project was initiated by BirdLife South Africa and the South African Department of Forestry, Fisheries and the Environment. Upon successful completion, the project will restore the critical breeding habitat of over two million seabirds, many globally threatened, and improve the island's resilience to a warming climate. For more information or to support the project please visit mousefreemarion.org