

FORUM NEWS 64

APRIL 2026 • www.ukotcf.org.uk

People, Nature, Knowledge: The Lasting Impact of DPLUS192 on Montserrat

As the DPLUS192 project draws to a close at the end of March 2026, it leaves behind a powerful legacy of collaboration, learning, and community-driven conservation. While this phase concludes, the energy and achievements of recent months highlight the lasting impact of the initiative across Montserrat. Here, we summarise some main aspects. There is more detail in the current issue (20) of Saving Our Special Nature of Montserrat (<https://www.ukotcf.org.uk/newsletters/project-newsletter-1/>).

At its core, DPLUS192 has brought people together around biodiversity and well-being. Through fieldwork, education, and partnerships, the project has strengthened local engagement while contributing valuable data and resources that will continue to benefit the island.

A Major Milestone: 10,000+ Biodiversity Records

One of the project's most significant achievements is the contribution of over 10,800 biodiversity records to iNaturalist. Growing from just 180 records in 2022, this milestone reflects the dedication of project teams, volunteers, students and community



Observation record from iNaturalist of female or juvenile Montserrat Oriole © nancyborowick_ iNaturalist CC BY-NC 4.0

members.

These records do more than document wildlife - they contribute to global scientific knowledge. Observations help researchers understand species-distribution, ecological trends, and conservation-priorities, particularly in under-documented regions like Montserrat. Verified records may also feed into international databases such as the Global Biodiversity Information Facility (GBIF), ensuring long-term accessibility and impact.

Citizen-science has been central to this success. By enabling people of all ages to record and share observations, tools like iNaturalist — alongside platforms such as the Flower Insect Timed (FIT) Count app — have made conservation more inclusive and participatory.

Education and Outreach: Inspiring the Next Generation

Education has been a cornerstone of DPLUS192. In February, every primary school student on Montserrat (147 in total) received a vibrant biodiversity activity book, introducing them to local species through colourful illustrations and interactive content.

School visits and assemblies brought the material to life, while teacher-training sessions ensured that resources align with the national curriculum. Developed in collaboration with educators and the Ministry of Education, these materials support long-term use in classrooms.

In addition, a growing suite of online resources now provides accessible, curriculum-linked activities for both students and



Look Out Primary School-children receive their activity-books from Chris Sealy, Montserrat National Trust.

(Continued on page 3)

Contents

People, Nature, Knowledge: The Lasting Impact of DPLUS192 on Montserrat	1
Why We Need Your Support	2
Thanks...	2
Lady Margarita “Dace” McCoy Ground	4
New UKOTCF book to be published in 2026:	5
The Nature of Britain’s Fragments of Paradise: wildlife and its conservation in UK Overseas Territories and Crown Dependencies	5
Jack Ward (1953-2025)	6
UKOTCF Conservation Horticulture Working Group launched	6
Exploring Cyprus’ Hidden Depths: First Insights into Mesophotic Ecosystems	7
A reflection from Bermuda on inclusion, conservation and the power of names	8
Marine Biosecurity in Guernsey	10
Tenth UK Overseas Territories and Crown Dependencies Environment Ministers’ Council Meeting, 6th February 2026	11
Assessing Climate Risks to Antarctic Heritage: Field Insights from the Peninsula	14
Anticipating, Adapting, and Living with Invasive Species: Lessons from Island Biosecurity	15
Rare camel spider (solifugid) discovered on Anguilla Island	16
Seven new species of spider discovered in Anguilla, and 21 other Caribbean spiders have their distribution-ranges expanded	17
Ants of the Akrotiri UK Sovereign Base Area	18
Indigena Biosecurity International: Building Capacity and Strengthening Invasive Plant Management across the UK Overseas Territories	19
Moths of St Helena – A brief history of discovery	20
Diversity of the extinct land snail genus <i>Chilonopsis</i> of St Helena (Mollusca: Gastropoda: Achatinidae)	27

Why We Need Your Support

The UK Overseas Territories Conservation Forum (UKOTCF) works to protect some of the most diverse and fragile environments under the UK’s responsibility. The UK’s Overseas Territories (UKOTs) and Crown Dependencies hold over 90% of the UK’s unique species, wetlands, and island habitats of global importance, and vast areas of ocean and reefs.

Yet despite this global significance, many territories have very limited resources for conservation. Small human populations, geographic isolation, and competing pressures mean that funding, specialist skills, and long-term capacity are often in short supply. At the same time, these territories face some of the most urgent challenges such as: habitat-loss, invasive species, and the accelerating impacts of climate-change.

The UK Overseas Territories Conservation Forum exists to help bridge this gap. We bring together conservation bodies, local communities and governments across the territories to share expertise, coordinate action, and provide practical support, through regional and thematic working groups and other meetings. We have helped develop conservation strategies and projects, deliver training, promote environmental education, and ensure that the voices of the territories are heard in UK and international policy discussions.

We play a key role also in connecting people and stories across the network, including through our twice-yearly newsletters (<https://www.ukotcf.org.uk/newsletters/forum-newsvers2/>), which highlight conservation action, challenges, and successes across the UKOTs and Crown Dependencies, and through our website www.ukotcf.org.uk.

The UKOTCF is the only environmental charity dedicated solely to conservation across all the UKOTs and Crown Dependencies. As a small, independent charity, we rely on donations, project grants and a lot of volunteer time! Even modest contributions make a real difference — helping us to sustain collaboration, build capacity in the territories, and protect wildlife and habitats that form the majority of the UK’s natural heritage. Our small team is supported and enhanced with a wonderful wider network of volunteers. If you are able to support us, through either regular donations or one-off payments, this will help us keep supporting all the heroes of conservation around the world <https://www.ukotcf.org.uk/donate/>.

We also have a range of tasks that you can help with if you have some time to spare as well! Please contact us on hello@ukotcf.org if you want to know more about volunteering.



From the article on pages 1-3: the toolkit in action:

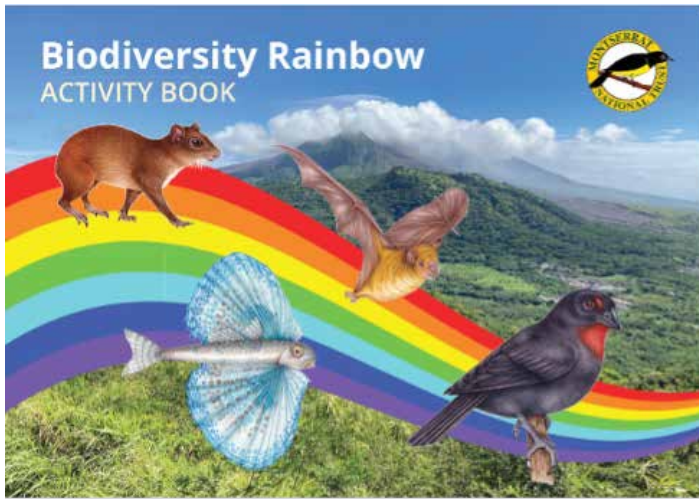
above: Prickly Pear cactus at new museum garden;



below: Turk's Cap cactus recently installed

Thanks...

for help with this issue to those writing articles or contributing images and their colleagues, as well as the core editing and production team of Dr Jodey Peyton, Catherine Wensink, Ann Pienkowski, Dr Rebecca Machin and Dr Mike Pienkowski.



Front cover of activity-book. © Rebecca Machin

teachers. These tools connect learning directly to Montserrat’s environment, encouraging children to explore biodiversity in their everyday surroundings.

Biodiversity and Well-being in Practice

The *Biodiversity & Well-being Toolkit* has been trialled across several sites to explore how nature-based engagement supports both environmental awareness and personal well-being.

At the hospital medicinal garden, the toolkit helped highlight the health benefits and cultural importance of local plants. At Drummonds, sustainable practices such as solar-powered irrigation demonstrated how biodiversity can support food-production and resilience in drier areas. Meanwhile, the Montserrat Museum’s cactus-garden showcased plant-adaptation and educational opportunities in challenging environments.

These real-world applications confirmed that the toolkit is practical, adaptable, and effective in diverse settings, linking conservation with everyday life.

Community Events and Collaboration

February’s activities showcased the strength of collaboration across organisations and communities. A BioBlitz at St George’s



Toolkit in action: above: Aloe vera at the medicinal kitchen garden; right: some of the beds being irrigated supporting pollinators



Bioblitz team at St George’s Hill, and a finding: a pollinating wasp.



Hill brought together scientists, local experts, and partners to document biodiversity, recording over 200 observations and more than 120 species in a single event.

The Montserrat National Trust Annual General Meeting highlighted further the importance of partnerships, celebrating achievements in conservation, education and heritage-preservation while recognising the contributions of volunteers and organisations.

Creative community-events also played a key role. Activities combining art, nature and mindfulness, particularly with young participants, demonstrated how engaging with biodiversity can support emotional well-being and foster a deeper connection to the environment.

Legacy and Looking Ahead

Although DPLUS192 is concluding, its legacy is firmly established. The project has created a strong foundation of biodiversity-data, educational resources and community-partnerships that will continue to grow.

By linking local citizen-science efforts to global platforms, supporting educators with lasting materials, and demonstrating the connection between nature and well-being, the project has ensured that its impact extends far beyond its timeline.

Most importantly, DPLUS192 has shown that conservation is strongest when it is shared – built on collaboration, curiosity and community-pride. As Montserrat continues to document and protect its unique natural heritage, the momentum generated by this project will carry forward into future initiatives.

Lady Margarita “Dace” McCoy Ground

In Forum News 63, we published an obituary of UKOTCF Council Member Lady Dace Ground, who had died unexpectedly a few days before publication. We are very pleased now to complement this, from a different viewpoint, by Dace’s brother, Al McCoy, to whom UKOTCF is grateful for permission to reproduce this.

On October 31st, 2025, Lady Margarita Candace McCoy Ground, an attorney and environmentalist known to friends and family as “Dace,” passed away from cancer at Royal Chesterfield Hospital in the United Kingdom at the age of 78. Born in Chicago, Illinois in 1947, her father Alfred was an electronic engineer and her mother, Margarita Piel McCoy, was later a distinguished urban planner. While her father served as an army officer and engineer, the family moved about the country until finally settling in Pacific Palisades, California where Dace attended the local high school.

In the golden years of the early 1960s, when California was the cynosure of the American dream, *Time* magazine tried to capture the moment with a cover story featuring the Class of ’65 at Pacific Palisades High School. Nominally a report about the teen-agers of the swelling “baby boom” generation, the *Time*-speak text quickly descended into a gushing, gossipy tour of life and lunchtimes at Pali High — with the “social elite” of the Singing and Drinking Association holding court at their reserved cafeteria table, nearby the ladies in waiting trying to “snatch at conversational crumbs tossed by a pair of homecoming queens,” and far outside were the “social rejects” fearful that their boyfriends were about to dump them. Through it all floated Candace McCoy, then just seventeen, “whose looks suggest Mona Lisa melded with Gidget.” Although she paid her dues to the social elite by dating basketball players, Candy, as she confessed to *Time*’s two million American readers, still felt a “guilty” attraction to intellectuals, saying: “They are so worthwhile.”

Indeed, after scoring in the top one percent on the College Boards with a perfect 800 on the verbal portion, without studying, Dace strolled into an elite Seven Sisters college but transferred to UCLA where she worked her way through as a night telephone operator for Pacific Bell. Taking the challenging LSAT (Law School Admission Test), again without any study, she scored in the top one percent and was admitted to the Harvard Law School class of 1974, the first with a large cohort of women.

As a first-year, Dace discovered her love of law, reading fifteen hours a day at the Harvard Law Library, books stacked high, Labrador retriever Billy McCoy at her side. When Billy wandered into her lecture hall one day, the professor ordered Dace to remove the dog. “We’ve admitted a number of women to Harvard this year,” he told the class, adding, “but we have to draw the line *somewhere*.” That attitude inspired Dace to play a leading role in the Women’s Law Association that created Harvard’s first course on women and the law. Although she did not make law review, her co-authored, heavily annotated article for the *Harvard Civil Liberties Law Review*, titled “‘Love’s Labor Lost: New Conceptions of Maternity Leaves,” made a persuasive case that “it is possible to draft an effective and fair proposal that would protect those women who desire to bear children as well as work.”

After law school, Dace returned to Los Angeles in 1974 to join the staff of a reformist city prosecutor, Burt Pines, where she documented the high cost of marijuana prosecution, producing research that was instrumental in persuading the California State Legislature to enact a pioneering decriminalisation of the recreational drug. When Pines ran for state attorney general in 1978, Dace resigned and took off on an extended journey around

the South American continent with her law school friend Carol Shapira, later Judge Shapira of King County. Back home, Dace followed Carol to Seattle where she worked as a bar tender at a saloon in historic Pioneer Square for nine months before the Seattle City Council hired her as a staff attorney. After recommendations for reforms to the city’s criminal code, noise abatement, and housing policy, in 1980 Dace took a lead role in the drafting and adoption of a comprehensive zoning code to humanise the high-rise urban environment of downtown Seattle.

That work done, Dace did advanced study of maritime law at the University of Washington and, in 1985, was hired by the Cayman Islands

Government in the Caribbean as Marine Parks Coordinator, establishing protections for the Grand Cayman’s famous “wall” that descends into the deep for 800 feet through a water wonderland full of rays, sharks, and countless sea creatures.

With the island’s coastal waters now protected, she established the National Trust for the Cayman Islands. As its founding executive director, Dace decided the first priority was saving Cayman’s blue iguana species (*Cyclura lewisi*) from extinction. With just fifteen animals left in the wild, Dace mounted a comprehensive campaign — doing complex land-swaps to create an inland reserve of grey karst outcrops that match the lizard’s camouflage, working with U.S. universities to breed out the few surviving pairs to avoid recessive genes, and eventually producing hundreds of captive-bred iguanas for release into the wild. There in the Caymans she met a young crown counsel, Richard Ground, who shared her unassuming brilliance and became her life partner in 1986.

As Richard won appointments as chief justice of the Turks & Caicos and then Bermuda over the next twenty years, Dace was not content to remain a “trailing spouse.” She found meaningful environmental work with the National Trusts in those two island territories. In 2011, the Bermuda National Trust gave her the Silver Palmetto Award, its highest honour, in recognition of exemplary service.

After her husband finished his term as Bermuda’s chief justice in 2012, they retired to Derbyshire in the United Kingdom. At



their retirement, Sir Richard was made Knight Bachelor in the Queen's Birthday Honours List, awarding Dace the title of Lady Ground. Despite her retirement, Dace remained an active director of the UK Overseas Territories Conservation Forum, which makes recommendations for protection of scattered island environments that, in their sum, have a greater diversity of flora and fauna than the whole of the United Kingdom.

Although she had no children of her own, Dace was a devoted aunt to her six nieces and nephews in Britain and the United States, providing them emotional support and advising them about their educational and career choices. For over thirty years, she also served as a director for a family firm, M&G Piel Corporation of New York, which is the successor to the famed Piel Bros. Brewery that her great-grandparents established in Brooklyn in 1882. Her good counsel was valued by all the organisations in which she served, and her joyful spirit animated every family gathering. She is survived by her brother, Alfred, of Madison, Wisconsin, and her in-laws, Marcus Ground and Mandy North Ground of Lincolnshire, United Kingdom. **Donations in Dace's memory can be made to the UK Overseas Territories Conservation Forum, a registered British charity whose web address is: <https://www.ukotcf.org.uk/donate/>.**

UKOTCF would like to thank Al McCoy for suggesting the idea of inviting contributions to UKOTCF's charitable conservation work, as a memorial to Dace. UKOTCF welcomes such contributions.

UKOTCF Council has confirmed that its series of high-level talks, the Sir Richard and Lady Dace Ground Lectures, will continue.

UKOTCF would like to acknowledge also a generous donation from the family firm of Dace and Al, M&G Piel Inc., for a generous donation in Dace's memory. UKOTCF will follow that company's wishes that, in the first instance, that donation will be used to help cover UKOTCF's costs towards the publication this year of the new book on wildlife and its conservation in the UK Overseas Territories and Crown Dependencies (see following article). UKOTCF's share of proceeds from the eventual sales of the book will feed back into UKOTCF charitable funds for conservation.

To help this, authors, editors and photographers contributing to the book are not charging for their services, in some cases amounting to many months of work.

New UKOTCF book to be published in 2026:

The Nature of Britain's Fragments of Paradise: wildlife and its conservation in UK Overseas Territories and Crown Dependencies

In 1987, Sara Oldfield's review of wildlife in the UKOTs and its conservation needs, *Fragments of Paradise* was published; this resulted in the formation of what became UKOTCF. 30 years on, the review in *Forum News* 46 (2017) ([ukotcf.org.uk/newsletters/](https://www.ukotcf.org.uk/newsletters/)) showed a lot of progress – but also lots left to do.

For more than 4 years, a team has been working on a new book. This consists of a well-referenced text (now complete) and very many high-quality photos (which will take up about half of the space); at the time of writing, the editor is working with chapter authors to finalise these for the last two chapters. Publication is due in November 2026, marking the start of UKOTCF's 40th year.

UKOTCF has agreed with the publishers that there will be a pre-publication discount offer. This will appear, amongst other places, on [ukotcf.org.uk](https://www.ukotcf.org.uk) and, we hope, in the next issue of *Forum News*. Postage of books overseas is now expensive and is not now normally dealt with by the publisher's web-site, which will handle most orders. The online book-seller NHBS (<https://www.nhbs.com/books>) will take most overseas orders at a cost to cover postage and packing. We are exploring other options of how to make the book more widely available outside the UK and will provide more information on this nearer the time,

The book is edited by Mike Pienkowski & Sara Oldfield, assisted by Catherine Wensink, Ann Pienkowski, Keith Bensusan, Adam Riggs & Jodey Peyton. The chapters and lead-authors are:

Foreword by Hon. Professor John Cortés, Gibraltar Minister for Education, the Environment, Sustainability, Climate Change, Heritage, Technical Services and Transport; and Chair of the Council of Environment Ministers (or equivalents) of UK Overseas Territories and Crown Dependencies

Chapter 1. **Introduction**, by Mike Pienkowski & Catherine Wensink (UKOTCF)

Chapter 2. **Flora – diversity, endemism, rarity and threats**, by Sara Oldfield

Chapter 3. **Terrestrial invertebrate diversity and endemism**, by Vicky Wilkins (Species Recovery Trust and IUCN Atlantic

Islands Invertebrate Specialist Group) and Liza Fowler (St Helena National Trust), with 12 case-studies by territory authors

Chapter 4. **Reptiles and Amphibians**, by Paul Edgar, with sections by Frederic J Burton (Cayman) and Cerys Joshua (St Helena)

Chapter 5. **Birds – flagships for global conservation**, by Mike Pienkowski (UKOTCF)

Chapter 6. **Marine Diversity**, by Adam Riggs (St Helena) & Kathleen McNary (Turks & Caicos Islands)

Chapter 7. **Conservation arrangements and mechanisms**, by Mike Pienkowski & Catherine Wensink (UKOTCF)

Chapter 8. **Human Communities in the UKOTs: sustainable livelihoods, challenges and opportunities**, by Catherine Wensink & John Pinel (Jersey)

Chapter 9. **Tackling invasive non-native species & restoring ecosystems**, by Rebecca Cairns-Wicks (St Helena), Jodey Peyton & Alan Gray, with 8 territory case-studies, including by Alison Neil (South Georgia Heritage Trust), Bryan Naqqi Manco (Turks & Caicos Islands), Grant Munroe, Ben Taylor & Darnell Christie (Falklands) & a team from Bermuda

Chapter 10. **Managing Marine Resources**, by Adam Riggs (St Helena) & Alizée Zimmermann (Turks & Caicos Reef Fund)

Chapter 11. **Global Connectivity & Global Climate Change**, by Sara Oldfield & Keith Bensusan (Gibraltar)

Chapter 12. **Looking ahead**, by Catherine Wensink, with contributions from school students in a UK Overseas Territory and a Crown Dependency

References (sorted and formatted by Keith Bensusan, Gibraltar)

Glossary

Conservation bodies in UKOTs and CDs

Visiting the territories

Jack Ward (1953-2025)

Jack Ward, a long-standing Bermuda conservationist, has died at the age of 72. He started his environmental career as a member of the Bermuda Inshore Waters Investigation team at the Bermuda Biological Station for Research during the 1980s. He then moved into fisheries biology at the Department of Agriculture and Fisheries before becoming the Principal Curator of the Bermuda Aquarium, Museum and Zoo. Jack subsequently became the first Director of the Department of Conservation Services. During his tenure (2000-2008), he directed the development of plans and legislation to protect Bermuda's natural heritage, including the creation of the Protected Species Act in 2003. After retiring from the civil service, Jack co-founded and was the President of Bermuda Environmental Consulting Ltd [text and image from Envirotalk].

UKOTCF adds: UKOTCF had many positive interactions with Jack Ward. He played a key part in our 2003 conference hosted in Bermuda, where he told us that he had based his reorganisation of the Bermuda governmental conservation body, to relate structure to function, on UKOTCF published guidance. He continued his wise, valuable and committed conservation work into his retirement work.



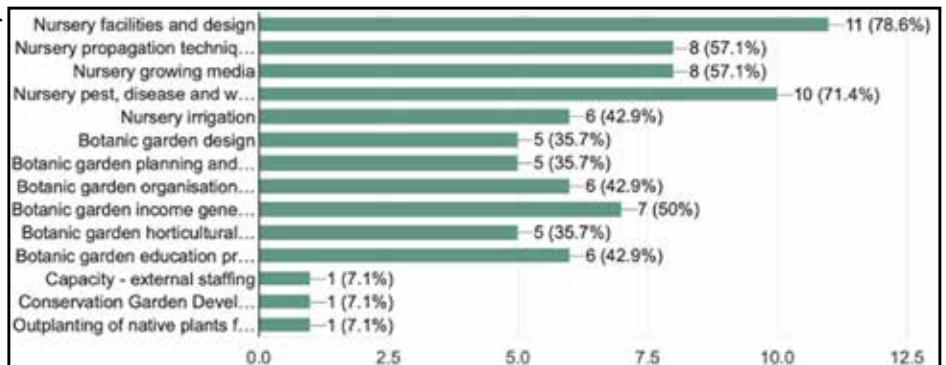
UKOTCF Conservation Horticulture Working Group launched

Leigh Morris, UKOTCF Council, Chair of the Conservation Horticulture Working Group (All images © Leigh Morris)

UKOTCF Council, at its March 2026 meeting, approved the establishment of a UKOTCF Conservation Horticulture Working Group (CHWG), and appointed Leigh Morris as Chairman and Dr Jodey Peyton as Secretary. Aligning with UKOTCF's ambition to increase the connections across all UKOTs and Crown Dependencies thematically, the CHWG will bring together organisations and individuals from across the UKOTs and CDs who are involved in botanical horticulture (e.g. *ex situ* plant-conservation, native-plant nurseries and botanical gardens) in order to:

1. Facilitate direct connections between UKOTs and CDs who are employing horticultural plant conservation techniques.
2. Enable and encourage knowledge exchange between the UKOTs and CDs, and UK partners.
3. Deliver training and advice (through UKOTCF and other UK-based partners);
4. Stimulate and provide a mechanism for cross-UKOT/CD collaboration and outputs, including joint fundraising.

An exploratory meeting of the need for a CHWG was held online on 11th December 2025, when 21 people from UK and 6 UKOTs plus one other Caribbean country (The Bahamas) participated. Co-chaired by UKOTCF Senior Projects & Conservation Officer,



Jodey Peyton, and Council Member, Leigh Morris, this meeting included a presentation by Torika Christian from Pitcairn Island, outlining their ambition to develop a nursery and botanic garden on Pitcairn to support native plant conservation (*bottom left*).

Subsequent to the first meeting all members and potential members were surveyed to measure their enthusiasm for continuing to meet. All were in favour and they also made recommendations for future meeting topics (*above*). The most popular topic was nursery design and so that will be the subject of the next CHWG meeting scheduled for Wednesday 20th May (16:00 to 18:00 BST).

The frequency of future CHWG meetings/workshops is yet to be agreed but there will be a maximum of four meetings each year, facilitated by UKOTCF, with recordings of the meetings

Below: Gibraltar Botanic Gardens Nursery



Vision

- Preserve and protect the Pitcairn Endemic Flora
- Establish a botanical garden on Pitcairn Island
- Increase knowledge and data on the Pitcairn Flora





Above: St Helena Dianas Peak Nursery

Below: Montserrat National Trust Botanic Garden Nursery



Exploratory meeting 11 December 2025

being made available online afterwards to help ensure knowledge-sharing and learning from the group is maximised. The potential exists in future to perhaps have occasional face-to-face meeting in one of the UKOTs or CDs.

Please contact Jodey Peyton (jpeyton@ukotcf.org) if you would like to attend future meetings.

Exploring Cyprus' Hidden Depths: First Insights into Mesophotic Ecosystems

In the depths where light fades, a seascape we rarely witness comes into view. Between April 2024 and July 2025, the Marine & Environmental Research (MER) Lab, through the MESOPHOS project funded by Darwin Plus (Project Reference No: DPL00075), undertook the first systematic exploration of mesophotic



Figure 1. Gorgonian coral *Callogorgia verticillata* recorded using a remotely operated vehicle (ROV) in the mesophotic zone of Akrotiri and Dhekelia, Cyprus. All photos in this article: Marine & Environmental Research (MER) Lab



Figure 2. Soft coral *Paraclyonium spinulosum* recorded using a remotely operated vehicle (ROV) in the mesophotic zone of Akrotiri and Dhekelia, Cyprus.

ecosystems in Cyprus, focusing on the United Kingdom Overseas Territory areas of Akrotiri and Dhekelia (the Cyprus Sovereign Base Areas).

Mesophotic ecosystems, found at depths of approximately 50–200 metres, represent one of the least explored components of the Mediterranean marine environment. Beyond the reach of conventional scuba-diving, these habitats remain poorly documented despite their potential importance for biodiversity

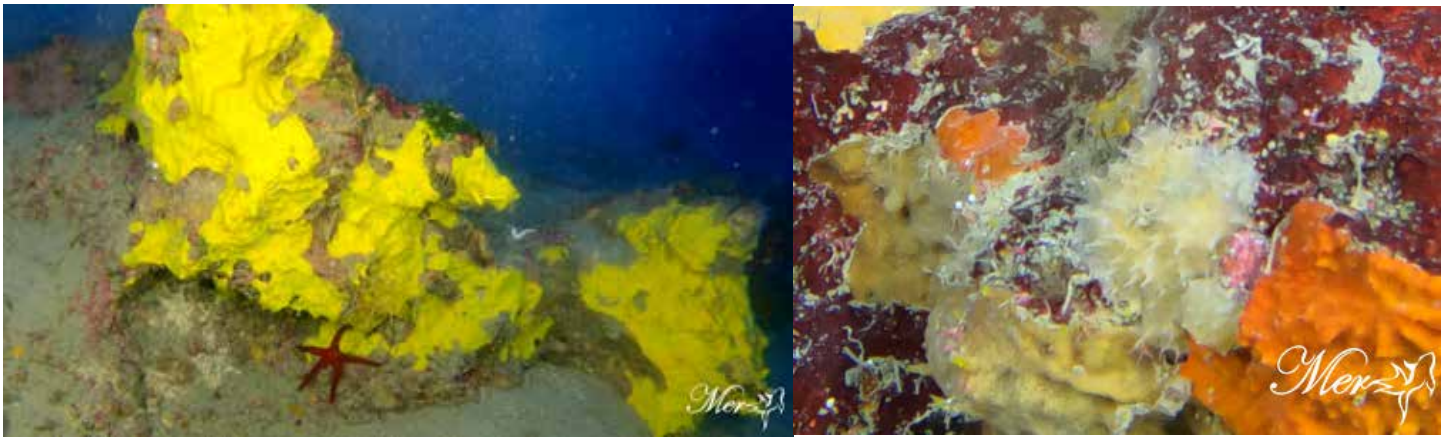


Figure 3. Diverse mesophotic benthic communities recorded using a remotely operated vehicle (ROV) in the mesophotic zone of Akrotiri and Dhekelia, Cyprus.

conservation and ecosystem resilience. Using a remotely operated vehicle (ROV), the team surveyed over 32 sites across this depth-range, providing the first detailed insights into mesophotic habitats previously undocumented in these areas. The surveys revealed extensive and structurally complex benthic communities, dominated by sponges, soft corals, anemones and other habitat-forming organisms. These assemblages create three-dimensional structures that support diverse associated fauna. In total, over 200 species were recorded, including several species not previously documented in Cyprus, many of which are protected, threatened, or considered data-deficient at regional level.

Mesophotic ecosystems are increasingly recognised as important components of marine biodiversity. They may function as refuges

from pressures affecting shallower waters and contribute to ecological connectivity across depth gradients. By supporting habitat-complexity and species-persistence, these systems may also play an indirect role in sustaining fisheries and broader ecosystem-services.

Despite their depth, the surveys documented clear evidence of human pressures. Marine litter and lost fishing-gear (ghost-gear) were observed at several sites, posing ongoing risks to benthic organisms. Physical disturbance consistent with bottom-towed fishing gear was recorded, causing damage to sensitive habitats. In addition, the presence of non-indigenous species and signs of coral necrosis, probably linked to rising sea-temperatures, highlight the vulnerability of these ecosystems to both local and climate-driven pressures.

A key concern is that mesophotic habitats develop extremely slowly. Once damaged, recovery may take decades or longer, if it occurs at all. This makes early identification and precautionary management particularly important. The MESOPHOS findings demonstrate the need for targeted conservation-measures, including spatial restrictions on damaging activities, active management of marine litter and lost fishing-gear, and the establishment of long-term monitoring programmes to track ecosystem-condition over time.

Safeguarding this hidden natural wealth is essential for Cyprus's marine heritage and for future generations. By generating baseline-data for previously unexplored depths, the project provides essential evidence to support marine spatial planning and conservation decision-making in Cyprus, highlighting the importance of integrating deeper habitats into national and regional marine management frameworks.



Figure 4. Sea pen *Pennatulula rubra*, a characteristic species of soft-bottom mesophotic habitats, documented using a remotely operated vehicle (ROV) in Akrotiri and Dhekelia, Cyprus.

A reflection from Bermuda on inclusion, conservation and the power of names

by **Myles Darrell**, Head of Natural Heritage, Bermuda National Trust

(All photos © Bermuda Audubon Society)

When I first heard about the decision to change the name of the *Bermuda Audubon Society* to *Birds and Nature Bermuda*, I did not see it as a simple rebrand. I saw it as something deeper, a moment of reflection, accountability and possibility.

Names carry meaning. They tell stories about who belongs, whose history is centered, and whose experiences are considered “neutral”. In places shaped by colonial histories, neutrality is rarely as simple as it appears.

The name “Audubon” comes from John James Audubon, widely celebrated for his bird illustrations, but also associated with documented racism, ties to enslavement, opposition to the abolition of slavery, and the expression of white supremacist views. While his artistic legacy is often foregrounded, these aspects of his record are well documented and cannot be separated from the whole of who he was. For some people, that history may feel distant



Draft logo



Above: birding at Spittal Pond

Below: GreenExpo, a public platform for businesses in the green economy to showcase natural, holistic, sustainable and environmentally friendly products and services

Bottom: Volunteer Day at Alfred Blackburn Smith Reserve



or academic. For many others, particularly people of colour, it is personal, connected to generational trauma, exclusion, and harm that continue to shape lived experience today.

When conservation spaces carry names or symbols rooted in racism or colonial violence, they can feel unwelcoming or simply not meant for everyone. Good intentions alone cannot erase that

reality.

Yet the story of this change in Bermuda was not driven by division. It began with reflection and a willingness to listen.

How the Conversation Started

The discussion began after an article in the United States highlighted concerns about commemorating historical figures whose legacies include harmful actions. Shortly afterwards, Bermuda's *Royal Gazette* asked the Bermuda Audubon Society for comment, prompting conversations about whether the organization's name still reflected its values and aspirations.

Janice Hetzel, president at the time the process began, recalls that the motivation was rooted in inclusion rather than criticism. "We want to draw in more diversity, because we know we need the whole community to effectively preserve and protect our environment." She noted that even the word society could feel unintentionally exclusive, and that opening conservation to a wider community required thoughtful change.

Membership support came quickly. Members recognised that conservation must evolve alongside the society it serves.

Listening and Learning

As discussions continued, the organization consulted Citizens Uprooting Racism in Bermuda (CURB), which facilitated workshops for members. The aim was not to erase history or engage in "cancel culture", but better to understand how language and historical context influence who feels welcome in environmental spaces.

Participants shared a common goal: a love of birds and a desire to protect nature together.

The conversations also acknowledged that nature spaces are not always experienced as neutral. History shapes access to land and leisure, including who historically had the freedom to enjoy nature, and who did not.

Choosing a New Name — and Facing Reality

From there, attention turned to finding a new name that reflected the organization's future. Several options were considered, but "Birds and Nature Bermuda" resonated strongly for its openness and clarity. The final vote took place at the 2025 Annual General Meeting, where members formally approved the change.

What followed, however, was a reminder that change is rarely simple. As Janice Hetzel later reflected: "When it was proposed, we hadn't fully evaluated the changes that would be needed. Our authority to own land is granted by an Act of Parliament, and we realised that this legislation itself might require amendment. We also knew that changes to our deeds could be necessary, though we did not yet understand what process that would involve. It was clear that we needed a lawyer to help us navigate what could become a complex legal pathway."

Legal documents, accounts, governance structures and administrative systems all required careful review and potential updating. The process proved slower and more complex than anticipated. Somewhat "cart before the horse," as she describes it — but the commitment to seeing it through remained strong.

Growth Is Not Rejection

Changing the name does not mean the organisation's love of birds has changed. It has not. Nor does it diminish the science, or the dedication of past members and volunteers.

Instead, the change reflects an understanding that conservation grows stronger when more people feel represented within it.

If environmental protection is to have broad public support, it must feel relevant and welcoming to the communities it serves. Conservation does not happen in isolation from society; it depends

on participation, trust and shared purpose.

Looking Forward

Without meaningful follow-through, any name-change risks being purely symbolic. But this moment creates space for wider dialogue about history, belonging and how conservation can better reflect the diversity of the communities it seeks to protect.

For me, this change is not about perfection. It is about progress, about listening, learning and recognising that the stories we tell,

even through something as simple as a name, shape who feels invited into the future.

I am proud to see this move forward as Birds and Nature Bermuda: grounded in honesty, guided by inclusion, and committed to a future where conservation reflects the full diversity of our community.

Birds and nature connect us all. The more inclusive the space around them becomes, the stronger that connection will be.

Marine Biosecurity in Guernsey

Julia Henney, Senior Natural Environment Officer, States of Guernsey

In 2021, the States of Guernsey produced an Invasive Species Action Plan which sought to turn management of invasive non-native species (INNS) on its head and align with best practice established in other jurisdictions. Instead of focussing efforts on species already present and causing harm, the new plan prioritised preventing new INNS from entering the island and rapidly responding to eradicate those species which do arrive in order to prevent them from establishing.

To achieve this new aim, the plan set out a series of actions to implement biosecurity, surveillance and rapid response. One key action is to produce a series of biosecurity plans to reduce the risk of introduction of new invasive species through high-risk pathways.

The production of a marine biosecurity plan was prioritised because it encompasses a number of the highest-risk pathways and, due to the technical and logistical difficulties in managing invasive species in the marine environment, preventing the introduction of marine species is very often the only means of control. Even where control is possible, it is often very costly due to the difficulties of working in the marine environment.

Following a competitive tender process, APEM Ltd were commissioned to produce a Marine Biosecurity Plan which meets three objectives:

1. Reduce the risk of introduction and spread of INNS, pests and diseases within Guernsey and Herm's marine environment by implementing appropriate biosecurity protocols.
2. Establish optimum surveillance monitoring, detection and rapid-response systems for those INNS which pose significant threats to biodiversity and economic interests.
3. Develop, where viable and justified, effective control programmes for existing INNS which are operationally sustainable.

It was imperative that the recommendations resulting from the plan were proportionate, realistic and achievable. So it was very important that it was produced with input from a wide range of marine users covering all relevant pathways. This was achieved through several workshops which sought to provide information on invasive species and the benefits of biosecurity, and then seek feedback on potential biosecurity measures and whether marine users felt that they could be implemented locally.

The results of these workshops then informed the production of a *Marine Biosecurity Guide* which promotes good-practice guidance for marine users, including recreational boaters, anglers, aquaculture-facilities, commercial shipping and coastal and offshore industry. It also recommends guidance for all sectors on how to raise awareness and to monitor and report invasive species. This guide will be promoted through local media, social media, and targeted communications such as a leaflet for recreational boaters which will be available at the local ports and yacht clubs.

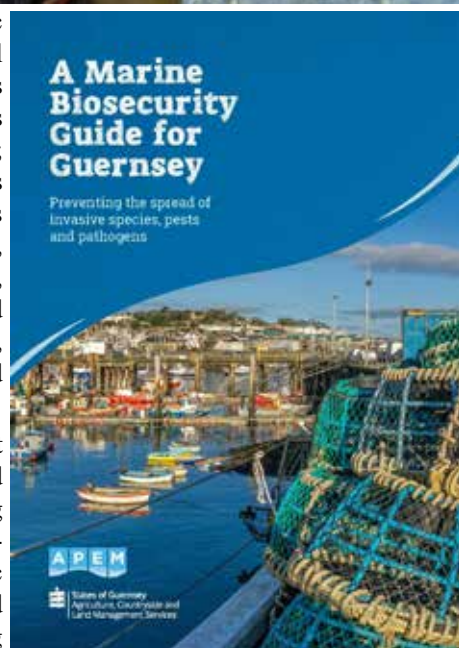


Above: Herm Harbour. © VisitGuernsey
Below: Herm Oyster Farm. © VisitGuernsey
Bottom: front cover of the Guide



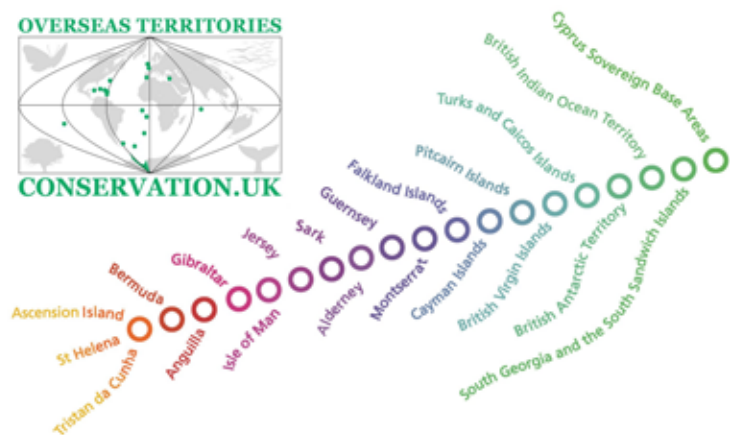
Alongside the public guide, a technical report for the States of Guernsey has also been produced; this contains recommendations for infrastructure, species-monitoring, rapid-response and contingency plans, and legislation and policy requirements.

It is hoped that this multi-faceted approach, combining both a government-led plan and a public engagement and awareness-raising campaign, will be successful in reducing the threat from marine invasive species in Guernsey.



**Council of Environment Ministers
(or equivalents) of
UK Overseas Territories
and Crown Dependencies:
10th meeting,
Friday 6th February 2026**

**Zoom hosting by:
UK Overseas Territories Conservation Forum
(UKOTCF)**



**Tenth UK Overseas Territories and Crown Dependencies
Environment Ministers' Council Meeting, 6th February 2026**

UKOTCF was pleased to be asked again by the Council of UK Overseas Territories and Crown Dependencies Environment Ministers (and their equivalents in non-ministerial systems) to provide the secretariat for their meeting and again to host it on UKOTCF's Zoom platform.

On the next page is the image of those participants present when the "group photo" was assembled, with their names below on this page.

In the main part of this article, we are pleased to reproduce the Council's Statement issued after the meeting (available also at https://www.ukotcf.org.uk/wp-content/uploads/2026/02/UKOTCD_10thEnvMinCo_Statement_20260206.pdf).

Persons in group photo (o next page) of Council of Environment Ministers (or equivalents) of UK Overseas Territories and Crown Dependencies: 10th meeting, Friday 6th February 2026 (from left to right, top to bottom):

Dr Mike Pienkowski, Mrs Ann Pienkowski (both Secretariat – UK Overseas Territories Conservation Forum);

Dr Ken Milne (Director of Environment), **Hon. Clare Barber MHK** (Minister), **Dr Richard Selman** (Ecosystem Policy Manager) (all Department of Environment, Food & Agriculture, Isle of Man);

Hon. Prof. John Cortés (Minister for Education, the Environment, Sustainability, Climate, Heritage, Technical Services and Transport, Gibraltar);

Mr Jim Robinson (Director Natural Environment, States of Guernsey);

Mr Willie Peggie (Group Director of Natural Environment, Jersey);

Deputy Adrian Gabriel (President of the Committee for the Environment & Infrastructure, Guernsey);

Ms Melissa Meade (Principal Assistant Secretary, Ministry of Economic Development, Industry, Commerce, Planning, Lands, Water and Natural Resources, Anguilla);

Mr Wayne Panton (former Premier, Cayman Islands);

Mr Andy Schofield (Environmental Policy Officer, Tristan da Cunha);

Mr Barry Mahabir (Principal Environmental Officer, Ministry of Agriculture, Lands, Housing & Environment, Montserrat)

Ms Tracy Knight (UK Representative & Head of London Office, Turks and Caicos Islands);

Hon. Kyle Hodge (Minister of Sustainability, Innovation and the Environment, Anguilla);

Ascension Island Marine Team (**Ms Tiffany Simpson**, Director of Conservation and Fisheries);

Mr Darren Duncan (Head of Environment, Natural Resources and Planning Department, St Helena);

Ms Deja Charles (Deputy Director, Department of Environment and Coastal Resources, Turks and Caicos Islands);

Ms Kedell Warboys (UK Representative, St Helena);

Mr Stephen Warr (CEO, Department of the Environment, Heritage and Climate Change, Gibraltar);

Mr Lucas Everitt (Sustainable Futures, AtkinsRéalis);

Mr Leigh Morris (UK Overseas Territories Conservation Forum; & Director International, The Wildlife Trusts);

Mr Nigel Cheesley (Head of Sustainability for Lloyds Bank International in the Crown Dependencies);

Ms Rowan Henthorn (Isle of Man Government);

Mr Samuel Pike (Environment Systems Ltd);

Mr Amdeep Sanghera, Ms Emily Bunce (both Marine Conservation Society).

Council of Environment Ministers (or equivalents) of UK Overseas Territories and Crown Dependencies: 10th meeting, Friday 6th February 2026, by Zoom, Statement

1. We, the portfolio holders for the environment in our respective territories or dependencies, held our tenth Environment Ministers' Council meeting by Zoom on Friday 6th February 2026. We continue to fulfil the role recognised by the November 2017 Joint Ministerial Council, which emphasised the importance of meetings of environment ministers in work on environmental management and climate-change issues.

2. The UKOTs boast some of the world's most delicate and complex ecosystems and habitats, with at least 3,300 species which occur nowhere else in the world. Collectively, they harbour a truly staggering amount of biodiversity, which in turn provides them with many goods and services (e.g. fishing, tourism, storm-protection, carbon-capture). In terms of endemic species (i.e. those occurring nowhere else), proportions of other species supported, sensitive ecosystems and threatened species, they hold even greater importance than that of the metropolitan UK. In fact, an estimated 94% of the biodiversity for which UK is internationally responsible is in the UKOTs, rather than in Great Britain and Northern Ireland.

3. We confirm our commitment to conserve our environmental capital, and, recognising its global importance, some territories have chosen to be included in UK's ratification of international environmental agreements. We share with the UK a partnership approach to integrating environmental considerations in government decision-making, marked in the case of most Overseas Territories by individual Environment Charters as envisaged in the 1999 White Paper *Partnership for Progress and Prosperity*, on which the 2012 White Paper *The Overseas Territories: Security, Success and Sustainability* is explicitly built. The approach is shared by other territories and dependencies through their commitment to the international agreements in which they are included. The Territories are vital to the delivery of UK's global environmental promises.

4. We recognise that Overseas Territories and Crown Dependencies have materially different relationships with the UK and we further recognise that there are differences between Overseas Territories. These differences are particularly reflected in approaches to funding, which we recognise in our consideration of future aspirations, expectations and obligations. But for all of us, particularly in the light of the major challenges noted above, funding remains the key issue. External funding for initiatives to tackle the priorities we identified in previous meetings, such as unsustainable development, invasive species and the impacts of climate-change, remains a challenge. For some of us, the EU was a source of considerable funds for project work, technical advice and infrastructure development – until Brexit. In this context, we are concerned that the principal UK Government funding mechanism for conservation in the UK Overseas Territories, Darwin Plus, did not make its usually annual call for applications in 2025 and no announcement has yet been made in respect of funding in 2026 or later. Such funding is essential if UK Government's recently published UKOT Bioversity Strategy is to have meaning, and we urge UK Government to reinstate fully this vital fund in the immediate future.

5. Whilst funding from other sources will not cover needs without Darwin Plus or a comparable successor UK Government fund, we welcome and encourage other initiatives, notably UK Overseas Territories Conservation Forum's EcoMatch, which seeks to match non-governmental conservation bodies in the Overseas Territories and Crown Dependencies with funding needs with corporate firms and foundations who wish to help in this respect. We encourage

all parties to use this platform. It was noted that the Crown Dependency of Guernsey has already, since the announcement of EcoMatch, partnered with its local Nature Commission to deliver the Nature Opportunities for Businesses, which mirrors the spirit and aims of EcoMatch, and welcomes the international roll-out of the initiative. We welcomed also a presentation from Lloyds Bank on the involvement, with others in the financial sector, in a long-term initiative started in the Isle of Man to restore the globally threatened ecosystem of temperate rain-forest, and welcomed potential support for conservation by Lloyds Bank and others in the Crown Dependencies and Overseas Territories. We welcomed the presentation from Sustainable Futures at Atkins Réalis on climate-finance routes open to Overseas Territories and requested that information be made available to Crown Dependencies, while noting that the UK governmental systems on this would not be available to these.

6. We again recall our governments' commitments to biodiversity conservation and sustainable development by choosing to be included in various international environmental agreements. We recognise with thanks the key role that local conservation leaders play in maintaining community motivation throughout the planning and implementation of long-term conservation projects. Their importance cannot be overstated if we are to ensure that community support for conservation projects does not fade over generations, and that future conservation projects will be embraced as readily as those currently being undertaken. In this connection, we welcomed that increased involvement of local communities has become the norm in conservation projects, as evidenced by the Marine Conservation Society's presentation on their Community Voice Method, Environment System Ltd's on informing conservation priorities through Earth observation, and that by the Isle of Man Government on the Manx Blue Carbon Project.

7. Similarly, we are pleased to see the strong authorship across the Overseas Territories, Crown Dependencies and UK of the chapters of UK Overseas Territories Conservation Forum's well illustrated book *The Nature of Britain's Fragments of Paradise: wildlife and its conservation in UK's Overseas Territories and Crown Dependencies*, to be published in autumn 2026. We welcomed this as an important way to widen awareness of the global importance of our wildlife, and encourage those organisations who can sponsor this publication to do so.

8. We know well that effective conservation depends on good science, and we appreciate that in the presentations brought to our meeting from the conference of the UK Overseas Territories Conservation Forum, as well as the others at the conference (the proceedings of which are available at <https://www.ukotcf.org.uk/our-conferences/>).

Appendix: List of Ministers and other lead representatives participating

Anguilla: Hon. Kyle Hodge, Minister of Sustainability, Innovation and the Environment

Ascension: Ms Tiffany Simpson, Director of Conservation and Fisheries (on behalf of Councillor Laura Shearer)

Cayman Islands: Mr Wayne Panton, former Premier of the Cayman Islands (on behalf of Hon. Katherine Ebanks-Wilks, Minister for Health, Environment and Sustainability)

Falkland Islands: Apologies from MLA Michael Goss, portfolio holder for Natural Resources

Gibraltar: Hon. Prof. John Cortés, Minister for Education, the Environment, Sustainability, Climate, Heritage, Technical Services and Transport

Guernsey: Deputy Adrian Gabriel, President of the Committee for the Environment & Infrastructure

Isle of Man: Hon. Clare Barber MHK, Minister for the Department of Environment, Food & Agriculture

Jersey: Mr Willie Peggie, Group Director of Natural Environment (on behalf of Deputy Steve Luce, Minister for the Environment)

Montserrat: Mr Barry Mahabir, Principal Environmental Officer, Ministry of Agriculture, Lands, Housing & Environment (on

behalf of Hon. John P. Osborne, Minister of Agriculture, Lands, Housing, Environment, Youth Affairs & Sports)

St Helena: Mr Darren Duncan, (on behalf of Hon. Karl Thrower, Minister of Environment, Natural Resources and Planning & Economic Development)

Tristan da Cunha: Mr Andy Schofield, Environmental Policy Officer (on behalf of Cllr Ian Lavarello, Chief Islander)

Turks and Caicos Islands: Ms Tracy Knight, UK Representative & Head of London Office (on behalf of Hon. Zhavargo Jolly, Minister of Tourism, Environment, Heritage, Maritime & Gaming)

Assessing Climate Risks to Antarctic Heritage: Field Insights from the Peninsula

Ruth Mullett, Head of Buildings and Conservation, UK Antarctic Heritage Trust

The UK Antarctic Heritage Trust has been working with expert consultant Gordon Macdonald to develop and test a new climate-risk modelling-tool for Antarctic heritage. During the last austral season, Gordon and UKAHT's Head of Buildings and Conservation, Ruth Mullett, travelled to the Antarctic Peninsula to ground-truth the model and refine its parameters using field-data collected at five historic sites (four of them managed by UKAHT). Work is now underway to make the tool available online for wider use across the Antarctic community.

This fieldwork forms part of a climate-change risk-assessment for Antarctic heritage, funded through the Green Overseas (GO) Programme on behalf of the British Antarctic Territory. With logistical support from G Adventures, the team visited Bases W (Detaille Island), Y (Horseshoe Island), E (Stonington Island), A (Port Lockroy), and Whalers Bay on Deception Island.



Above: Ruth & Gordon heading south (UKAHT/ Gordon Macdonald)

Rapid change, rising risks

The Antarctic Peninsula continues to warm faster than nearly anywhere else on Earth, and this is already taking a visible toll on Antarctic heritage sites. Over the last years, UKAHT has already documented clear signs of accelerating deterioration:

- Increased precipitation, particularly heavy snow, exerting structural loads beyond original design-capacity.
- Meltwater-pooling and overland-flow undermining foundations and driving localised erosion.
- Timber-decay, including rot and algae growth, affecting external cladding and structural elements.



*Above: Base E at Stonington Island (UKAHT/ Gordon Macdonald)
Below: Ruth capturing building details at Detaille (Gordon Macdonald)*



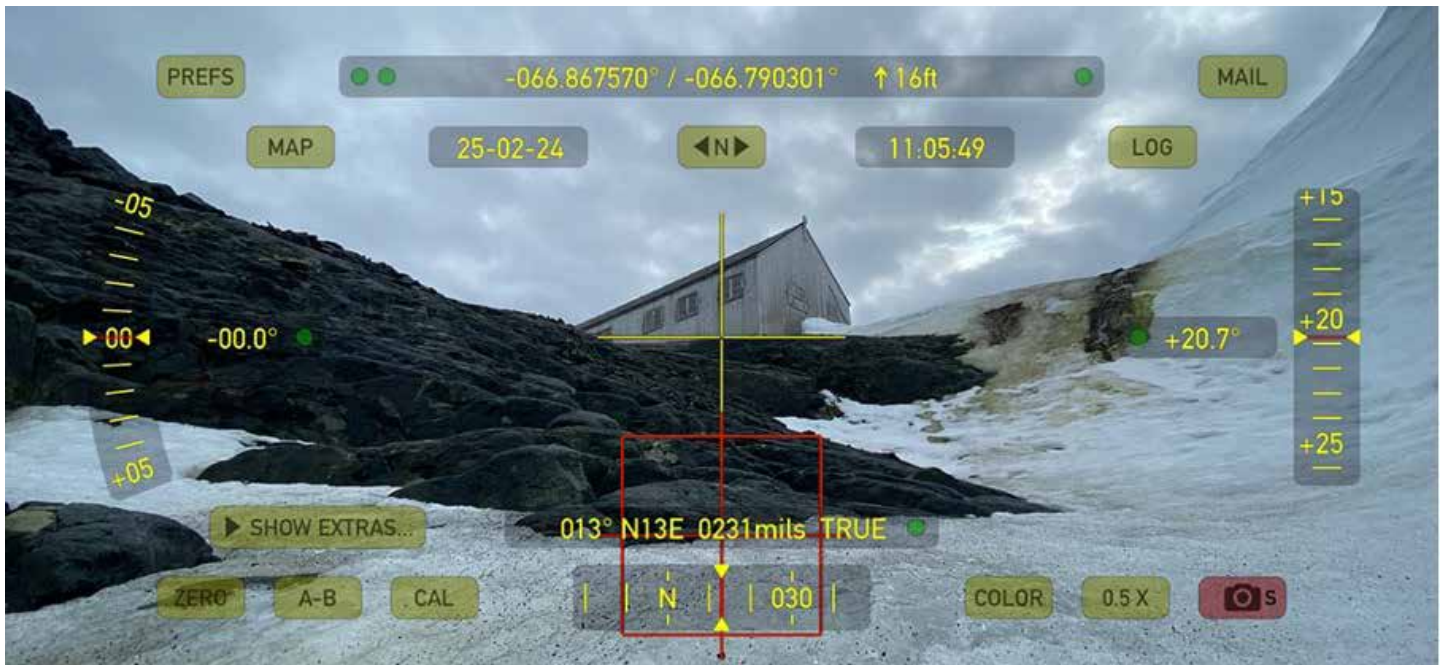
- Humid internal environments and mould-growth damaging historic artefacts and interior materials.

These impacts demonstrate that climate-change is no longer a future concern for heritage managers. It is a present-day challenge requiring proactive responses, monitoring and adaptation.

Ground truthing the risk model

Originally developed as part of Gordon's PhD research, the risk-assessment tool enables desk-based evaluation of climate-vulnerability across Antarctic Historic Sites and Monuments, Antarctic Specially Protected Areas (ASPAs) and Antarctic Specially Managed Areas (ASMAs). Fieldwork on the Peninsula provided an invaluable opportunity to validate the model in one of Antarctica's most rapidly changing regions.

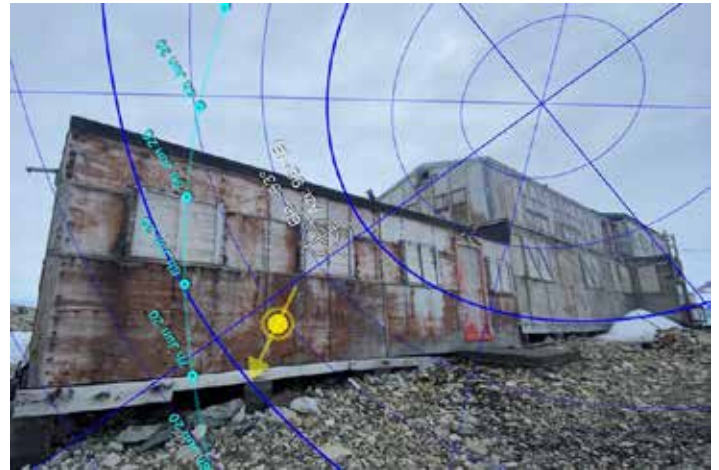
The season allowed also refinement of a rapid-survey approach incorporating LiDAR, drone-photogrammetry, and



Screen capture showing a 21° slope at one corner of the hut. (UKAHT/ Gordon Macdonald)



Inside the Emergency Refuge at Base Y, Horseshoe Island (UKAHT/ Gordon Macdonald)



A screen capture showing solar aspect of the site with the hut in context (UKAHT/ Gordon Macdonald)

topographic mapping, building condition-assessments and on-site environmental monitoring.

Why this matters to the wider region

The model and survey methods are designed for broad applicability. Once refined, the online tool will provide a consistent way to compare risks across sites, inform conservation-priorities and guide the deployment of limited field-resources. It should be available on the UKAHT website later this spring. The rapid-survey protocol is similarly intended to be shared, adapted and scaled by other heritage managers and Treaty Parties.

Next steps

The extensive dataset collected is being converted into 3D models and analysed to identify patterns of vulnerability across Peninsula sites. These findings will feed into UK policy for Antarctic heritage-management and support long-term resilience-planning.

Although this project centres on UKAHT-managed sites, its methods and early findings are relevant to many regions across the Southern Ocean where environmental change is accelerating. The work aims to equip the wider Antarctic community with the tools needed to understand and respond to climate-driven risks to shared heritage.

Anticipating, Adapting, and Living with Invasive Species: Lessons from Island Biosecurity

Dr Katie Medcalf CEnv MCIEEM Vice Convenor Overseas Territories Special Interest Group, Environment Systems

Island ecosystems sit at the frontline of the global biodiversity crisis, and invasive alien species (IAS) remain one of their most severe and persistent threats. A recent symposium facilitated by the Overseas Territories Special Interest Group of the Chartered Institute of Ecology and Environmental Management (CIEEM), brought together researchers and practitioners working across UK Overseas Territories and remote islands worldwide to explore how biosecurity is evolving; from early warning systems and cutting-

edge technology to long-term management strategies where eradication is no longer feasible.

Opening the symposium, **Professor Helen Roy** set the global context, describing IAS as a major driver of biodiversity-loss and a factor in around 60% of recorded extinctions. She argued for a decisive shift away from reactive responses towards horizon-scanning: a predictive, consensus-based approach that identifies high-risk species before they arrive or become established. Examples such as the yellow-legged hornet illustrated how early prioritisation enables faster, more effective intervention. Central

to this approach is data-quality, prompting the development of comprehensive non-native species inventories across all UK Overseas Territories. Professor Roy also emphasised the importance of community-participation, noting that citizen-science initiatives in the territories are increasingly shaping global best practice in biosecurity.

The human dimension of invasive-species management was a recurring theme. **Simon Busuttil** described how efforts to protect the Turks and Caicos rock iguana expanded from a single-species programme into a broader, multi-territory biosecurity-strategy. While the successful eradication of feral cats led to dramatic iguana recovery, rat-eradication proved impossible in dense mangrove habitats. Rather than abandoning the effort, the team adapted — translocating iguanas to cat-free islands even where rats persisted, with encouraging breeding success. Public engagement was equally important: removing invasive *Casuarina* trees became a visible advocacy-tool, helping communities understand and support wider biosecurity-goals. This work is now being scaled up through the Darwin Strategic Project, strengthening legislation and biosecurity-capacity across five Caribbean territories.

Innovation featured strongly in a joint presentation by **Dr Jenny Daltry** and **Farah Mukhida**. Following successful rodent-eradications on Anguilla’s offshore islands, seabirds and endemic reptiles rebounded rapidly. To extend these gains to populated areas, the team established the Caribbean’s first “mainland island” at Fountain National Park, protected by a hurricane-resistant, pest-proof fence. They also introduced Island Guard, an AI-enabled camera-system that identifies invasive species in real time and transmits instant alerts, dramatically reducing monitoring costs while enabling rapid response.

Not all eradication efforts succeed, and the symposium addressed this reality with refreshing honesty. **Andrew Callender** examined failures on Gough and Henderson Islands, where millions of seabirds continue to be lost annually due to invasive rodents. Factors such as bait-removal by slugs and simple bait-refusal by individual rodents underscore the complexity of eradication at scale. Crucially, Callender argued that transparent reporting of failure is essential to innovation, highlighting trials of new bait-flavours, exploration of novel rodenticides, such as Norbormide, and the cautious consideration of emerging genetic tools such as genedives.

The symposium concluded with a pragmatic perspective on long-term control. **Barry Mahabir** and **James Daley** described Integrated Pest Management approaches on Montserrat, where volcanic exclusion-zones make eradication unrealistic. Their work balances biodiversity-protection with food-security and livelihoods, addressing complex conflicts such as managing endemic species including the native iguana that is also considered an agricultural pest. A community-based scheme encouraging charcoal-production from invasive *Casuarina* trees also demonstrated how local livelihoods can align with ecological restoration.

Together, the talks highlighted a maturing field: one that combines prediction, innovation, transparency and community-leadership to confront invasive species in a rapidly changing world

If you would like to watch the symposium the web link is <https://www.youtube.com/watch?v=J--pwf4qu48>.

Rare camel spider (solifugid) discovered on Anguilla Island

Scientists have discovered a rare camel spider on the main island of Anguilla, more than 20 years after its initial discovery on Sombrero Island, where it was originally thought to be restricted to. This work, funded by the UK Government through Darwin Plus grant DPLUS216 *Supporting Atlantic Territories Invertebrate Conservation* was published by Sherwood, Armas, Mukhida & Connor in the December edition of the arachnology journal *Revista Ibérica de Aracnología* (Sherwood *et al.* 2025), where the original description of the species also appeared two decades earlier.

Danniella Sherwood, Senior Conservation Officer at Buglife, said “When I discovered these solifugid specimens during night-time fieldwork, I was floored. Camel spiders are amongst the rarest arachnids in the world, and I’ve only observed them in the wild four times previously. We knew, whatever species they were, that they were new for the main island of Anguilla. To find out they were a rare species described from Sombrero was the icing on the cake, as this indicates the species is much less restricted than previously thought and a positive development for its conservation.”

Farah Mukhida, Executive Director at the Anguilla National Trust said “We’re thrilled to be collaborating on DPLUS216 with various partners, including Buglife, and the discovery of this remarkable camel spider on a new island is a key win for its conservation outlook.”

Rhon Connor, Director of the Environment Unit at the Anguilla Government Department of Natural Resources, added: “We are extremely happy to find out that this rare camel spider species also exists in Anguilla.”

Supporting Atlantic Territories Invertebrate Conservation (DPLUS216) is a Darwin-funded project and a collaboration

between: Anguilla National Trust, Government of Anguilla, Ascension Island Government Conservation & Fisheries Directorate, The Bermuda National Trust, The Government of Bermuda, Falklands Conservation, Falkland Islands Government, The Species Recovery Trust, and Buglife – The Invertebrate Conservation Trust.

Reference: Sherwood, D., Armas, L. F. de, Mukhida, F. & Connor, R. A. (2025) New records of the camel spider *Antillotrecha iviei* Armas, 2002 from Anguilla, Lesser Antilles (Solifugae: Ammotrechidae). *Revista Ibérica de Aracnología* 47: 139–142.



Endemic *A. iviei* solifuge at Long Pond, Anguilla (Danni Sherwood)

Seven new species of spider discovered in Anguilla, and 21 other Caribbean spiders have their distribution-ranges expanded

A multi-national collaboration of scientists and conservationists on Anguilla and United Kingdom has published a landmark new paper on the spiders of Anguilla (Sherwood *et al.* 2026). More than 20 species were recorded from the island for the first time, many being regional endemics previously thought to occur only on other nearby Caribbean islands. Seven species were also new to science, representing key new endemic species thought to be restricted to the island. The team, whose work was funded by the UK Government DPLUS216 *Supporting Atlantic Territories Invertebrate Conservation* project, comprised of the entire Anguilla National Trust team, most of the environmental staff of Anguilla's Department of Natural Resources and Environment, and a British arachnologist.

The seven new spiders are from a variety of families, and are all named after places in Anguilla or the Lesser Antilles in general: two new money spiders (*Agyneta anguilla* and *Sphecozone sandyground*), one new pirate spider (*Mimetus antillensis*), a daddy-longlegs spider (*Modisimus anguillensis*), and three cobweb spiders (*Anelosimus blackgardens*, *Anelosimus covepond*, and *Coleosoma roadsalt*) were described. Other key discoveries were the documentation of three wolf spiders, when only one species was previously known.

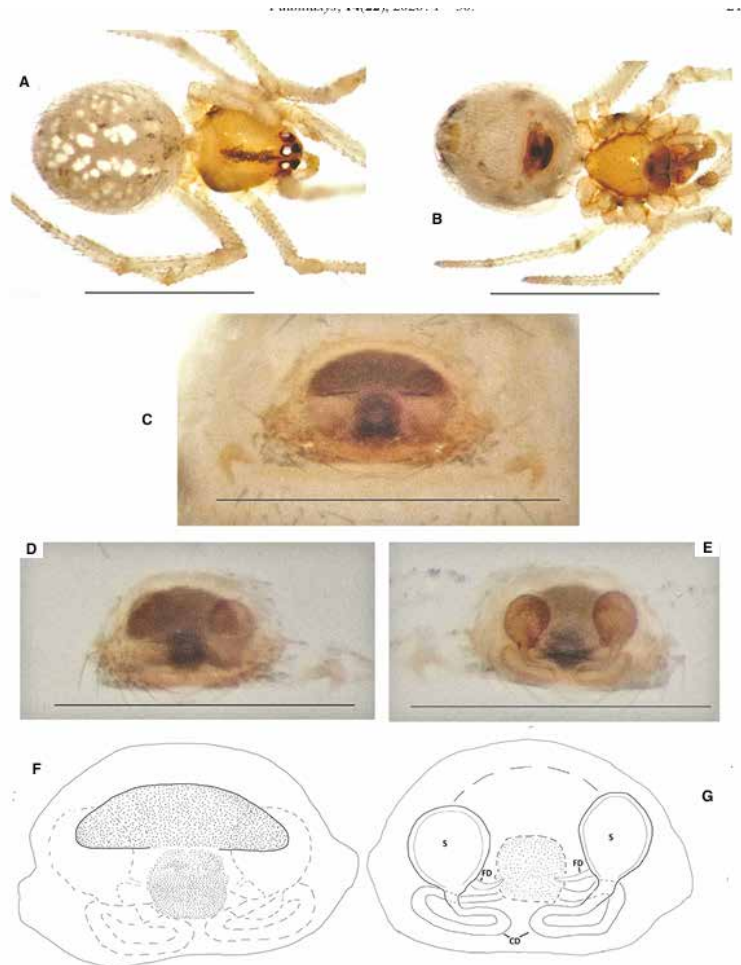
Danniella Sherwood, Senior Conservation Officer at Buglife and a world-renowned arachnologist, said "It was a great pleasure to be able to conduct fieldwork on Anguilla to study its spider fauna, made possible through the dedication and kindness of colleagues at the Anguilla National Trust and Anguilla Government. We surveyed the vast majority of the island, made many discoveries, and were able to describe seven new species, showing how crucial Anguilla is as a centre of island invertebrate endemism."

Farah Mukhida, Executive Director at the Anguilla National Trust, said "Even on a small island like Anguilla, there is a remarkable and largely hidden world of biodiversity. Spiders are an undeniably important part of that story. Research like this reveals just how much biodiversity remains undocumented and underscores the importance of continuing to study and build our understanding of Anguilla's wildlife and wild spaces. No species is too small, each plays a vital role. We're thrilled to be collaborating with Buglife and other partners on this groundbreaking work, funded by Darwin Plus."

Rhon Connor, Director of the Environment Unit at the Anguilla Government Department of Natural Resources, said "We are delighted to be a part of this Darwin project as it has provided us with an opportunity to investigate further spiders' diversity within our island. We are pleased to be collaborating with Buglife and other partners, and this paper has helped us to learn so much more about our island's unique spiders."

Supporting Atlantic Territories Invertebrate Conservation (DPLUS216) is a Darwin-funded project and a collaboration between: Anguilla National Trust, Government of Anguilla, Ascension Island Government Conservation & Fisheries Directorate, The Bermuda National Trust, The Government of Bermuda, Falklands Conservation, Falkland Islands Government, The Species Recovery Trust, and Buglife – The Invertebrate Conservation Trust.

Reference: Sherwood, D., Mukhida, F., Connor, R. A., Hughes, G., on the spiders (Arachnida: Araneae) of Anguilla, Lesser Antilles Carter, D., Curtis, I., Hochart, J., Gumbs, K., Gumbs, J. C., Buckmire, with description of seven new species. *Faunitaxys* 14(22): 1–30. Z., Morrishaw, Z., Child, N., & Visque Bosquet, I. (2026) New data



Above: Endemic A. new spider *Anelosimus blackgardens* paratype female (Danni Sherwood)

Below: Endemic regionally wolf spider *Hogna* cf. *sanctivincenti* Long Pond, Anguilla (Danni Sherwood)



Ants of the Akrotiri UK Sovereign Base Area

Jakovos Demetriou, Joint Services Health Unit Akrotiri / Enalia Physis Environmental Research Centre

The Akrotiri UK Sovereign Base Area (SBA) is situated at the southernmost point of the island of Cyprus, including the Akrotiri Salt Lake and wetland, a designated Ramsar Site. The Akrotiri peninsula is a designated Special Protection Area (SPA) and a Special Area of Conservation (SAC). Being a biodiversity hotspot, it hosts many important, rare and threatened species, including birds, reptiles, mammals, plants and insects. Its wetlands also support an extreme diversity of migratory birds, providing them with a significant resting, breeding and feeding habitat, with 361 species of birds recorded at Akrotiri peninsula. However, despite its ecological importance, the peninsula faces a variety of threats, including urbanisation, pollution, overexploitation of natural resources, agricultural intensification, invasive non-native species and climate-change, impacting its pristine and diverse habitats.

In the framework of the Darwin Plus funded project *Biodiversity and spatiotemporal patterns of ants on Akrotiri Peninsula* (DPLUS200), we surveyed the area for two years (2023-2025), providing a baseline of the island's and UKOT's ants (Figure 1), raising public awareness on ants through the creation of a website as well as establishing and promoting a citizen-science scheme for the collection of ants.

Based on our findings, the Akrotiri UK SBA hosts 52 species of ants, amounting to 59% of the 88 species of ants currently known from the island. This high biodiversity may be well-attributed to the heterogeneous landscape of diverse but fragmented habitats mapped within the peninsula. Amongst the SBA's species, we identified 12 species endemic to Cyprus, including *Temnothorax akrotiriensis* (named after the peninsula) and *Oxyopomyrmex polybotesi* (probably threatened). As for non-native species, we detected 9 species amongst which, most worryingly, is the invasive alien species *Wasmannia auropunctata* (aka the little fire ant) (Figure 2). All data on the species' distributions, status and habitats, and photographic material for the whole island can be



Figure 1. Map of study area and sampled localities.

found on the *Ants of Cyprus* website (<https://sites.google.com/view/ants-of-cyprus/home>).

The pilot citizen-science project, with the help of students of the rural Asomatos primary school (Limassol, Cyprus), proved to be a fun and rewarding exercise. Students were given ant collection-kits and asked to collect specimens inside their houses within one or two weeks from 3rd to 16th November 2023. As a result, students detected two new native and two new non-native species for the whole island, highlighting the importance of citizen-science in detecting and mapping the distribution of non-native and native species (Figure 3).

Acknowledgements

Huge thanks to all those who participated and supported the project. Special thanks to Dr Angeliki Martinou and Prof. Helen Roy for supervising the project as well as taxonomic experts Dr Christos Georgiadis, Dr Sebastian Salata and Prof. (Emeritus) Lech Borowiec for their mentoring and identifications. Finally, Mr Evangelos Koutsoukos and Mrs Ioanna Angelidou for all their help and the laughs during our fieldwork!



Figure 2. Important taxa found in Akrotiri peninsula i.e., the non-native *Monomorium exiguum* (photo: Prof. Lech Borowiec) (A), the endemic *Temnothorax akrotiriensis* (photo: Prof. Lech Borowiec) (B), the endemic *Oxyopomyrmex pygmalioni* (AntWeb CASENT0922693; photo: Michele Esposito) (C), and the invasive non-native *Wasmannia auropunctata* (photo: Prof. Lech Borowiec) (D).



Figure 3. Visit to the Asomatos primary school providing students with ant collection kits. Inset: the ant collection-kit. (Photo: Ioanna Angelidou)

Indigena Biosecurity International: Building Capacity and Strengthening Invasive Plant Management across the UK Overseas Territories

Bradley Myer, Managing Director, Indigena

(All images: B. Myer Indigena Biosecurity International)

When I first travelled to a UK Overseas Territory as a field ecologist, I was immediately struck by the contrast between the extraordinary biodiversity these islands hold, and the immense pressure placed on the small teams responsible for protecting it. On remote islands, where rare plants cling to wind-scoured cliffs and seabirds nest in landscapes shaped by ancient volcanism, conservation-work often falls on just a handful of committed people. Many of them juggle invasive-species control, ecological monitoring, public outreach, policy-implementation, and emergency-response — sometimes all within a single week.



Above: Indigena Trainers Bradley Myer and Mike Gibbs with the National Parks Trust Team from BVI (2023)

Below: Indigena Trainer Bradley Myer with the Age and Conservation Teams Tristan da Cunha (2025)



As my career unfolded across the South Atlantic, the Caribbean, the Pacific and the New Zealand offshore islands, one truth remained unmistakable: conservation in remote places succeeds only when local people are empowered to lead it. External expertise can provide tools, training and temporary assistance, but long-term ecological resilience comes from building local capacity—helping island-communities develop confident, well-supported teams capable of managing their own biodiversity-challenges.

Indigena Biosecurity International was established to support conservation-practitioners in remote island-ecosystems through practical capacity-development and invasive-plant management. Its approach emphasises partnership, mentoring, and the co-



*Above: Wayne Swain and Tristan Glass from the Tristan da Cunha Conservation Team attempting to eradicate *Leptospermum laevigatum* (2025)*

Below: Indigena Trainer, Mike Gibbs with NPTVI's Jakoy Gordon (2023)

development of systems that remain in place after projects conclude.

Capacity-development is embedded within ongoing operational work. Support may include early detection and rapid-response planning, field-botany and plant-identification training, herbicide safety and calibration, monitoring protocol-design and assistance with operational planning and reporting.

The focus is on creating usable systems — standard operating procedures, prioritisation frameworks and data-tools — that align with local constraints and terminology.

Invasive-plant management forms a core component of this work. Many island-ecosystems are highly vulnerable to aggressive grasses, shrubs and woody weeds that can rapidly alter habitats. Indigena supports Territories with survey-design, mapping, prioritisation-planning, and the development of eradication or containment protocols suited to local conditions. Field-methods may include cut-stump treatment, stem-injection, targeted foliar spraying, rope-access weed-control, and, where appropriate, drone-applications. Training local teams in these techniques ensures continuity of management.

Across several Territories, this collaborative model has supported improvements in early-detection systems, weed-prioritisation planning, herbicide-accreditation, and structured reporting. The emphasis remains on strengthening institutional capability and supporting conservation-officers to operate confidently and effectively within their own contexts.

As environmental pressures increase, adaptable and well-supported local conservation-systems are essential. Indigena's work continues to focus on practical support, mentoring and system-development that enhances the resilience of island-ecosystems while keeping leadership firmly within the Territories themselves.



Moths of St Helena – A brief history of discovery

Timm Karisch

Museum für Naturkunde und Vorgeschichte Dessau & Senckenberg
Deutsches Entomologisches Institut, Müncheberg

Here we include an extended article on moths of St Helena. Moths tend not to get some time in the sunlight (excuse the pun) – so we include an extended piece in this issue of Forum News.

Why did the Musée Royal de l’Afrique Centrale (MRAC, Royal Museum for Central Africa), Tervuren, Belgium, choose the island of St Helena in the southern Atlantic to carry out vast investigations on invertebrates? While the island has historical links with Portugal, the Netherlands and Britain, and is now an UK Overseas Territory, it was never part of Belgium’s empire. The scientific interest of this very remote oceanic island with a long geological history, and its potential for the evolution of unique plants and animals, was probably reason enough to lead Pierre Basilewski (1913-1993) (Fig. 1) to organise a series of expeditions there. This ultimately led to my own research on St Helena, following in the footsteps of a number of natural historians through the nineteenth to the twenty-first centuries, drawn to its unique biodiversity.



Figure 1. Narcisse Leleup (left) and Pierre Basilewski on an IRSAC expedition in Belgian Congo in 1957 (Collection RMCA Tervuren ; unidentified photographer, 1957 All rights reserved.)

In 1927, Karl Holdhaus (1883-1975) had already referred to Thomas V. Wollaston’s (1822-1878) 1877 work, so knew of the many endemic beetle species on St Helena. In contrast, the moths and butterflies, thoroughly studied elsewhere in Africa at that time, had been largely ignored by the Belgians. This may not have been



Figure 2. John Charles Melliss (1835-1910) wrote a magnificent book on St Helena, which includes the first information on the moths and butterflies on the island (Wikipedia, public domain).

due to a lack of specialists, but rather the difficulties of collecting and preserving moths. Moths, particularly the smaller species, cannot simply be collected and stuffed into tubes with ethanol. For taxonomical work and comparison, moths must be caught very carefully so as not to lose their scales. The larger ones have to be pinned immediately and to be placed in boxes then. The smallest must be stored alive in small glass tubes, until prepared after the field work. This is important to preserve the shape of their wings, straighten the

fringes, and preserve typical pattern, important for morphological comparisons later on.

The fact that anything that is known about the butterflies of the island is due to chance. Without J. Melliss’ collections, described in his monumental work (Fig. 2), and his invitation to his friend Thomas Wollaston to stay on island in 1875/76, Edith Wollaston would never have reached St Helena. While her husband collected beetles, Edith focused on butterflies and moths, including smaller species, which show a particularly large radiation on St Helena. Edith Wollaston’s collections and descriptions are the basis of the knowledge of St Helena’s lepidoptera; much from her collections is preserved at the Natural History Museum, London.

Because the MRAC expeditions otherwise paid little attention to butterflies and moths, the collections of Arthur Loveridge (1891–1980), an emeritus professor of herpetology, took on particular significance, as they were an important source of larger moths (Fig. 3). These collections resulted also in several new descriptions of endemic species by Emilio Berio (1905–1993), an Italian moth specialist. After this brief revival in the mid-20th century, butterfly and moth research on St Helena fell back into a deep sleep. It was not until the end of the 20th century that it started again. While Philip (b. 1934) and Myrtle (1934–2025) Ashmole collected a few specimens during their work on the island, it was not the focus of their research.



Figure 3. This is the last remaining drawer on the island with insects collected by Arthur Loveridge (photo: T. Karisch)

In 1995, I began my own research on St Helena. For over a week, I conducted intensive collection (mostly light traps), together with Dr Wieland Röhricht. It was again by chance that these took place on St Helena, as we simply wanted to travel to any remote island to gain experience of scientific work in such terrain. However, the importance of having more extensive material available for research soon became apparent. With the support of Martin Honey from the museum in London, I worked on an initial article on the macrolepidopteran fauna of St Helena, which was published in 2001. This included results from our 1995 collections, as well those of Loveridge, and the Royal Museum for Central Africa. Matthias Nuß from the Dresden Museum of Zoology also published on St Helena moths, using those from the collection in London, and my own, to describe the genus *Helenoscaparia* in 1999 (Fig. 4). These are Scopariinae with a reduced tympanal organ, which he attributed to the absence of predation by bats on St Helena.

In 2003 and 2009, I published further work on moth families belonging to the Pyraloidea and micro-moths. Paradoxically, the most interesting family, the Tineidae, which contains the majority of endemic species on the island, could not be studied. The tight



Above: Fig.4. *Helenoscoparia helenensis* is one of the *Scopariinae*-species with a reduced tympanal organ (photo: T. Karisch)

Below: Fig. 5. *Opogona piperata* belongs to the endemic *Tineidae* species, but is comparatively easy to identify (photo: T. Karisch).



time-frame available in 1995 allowed the collection of just a small number of specimens. The variability of species remains unclear, and after the comparison of the newly obtained moths with existing species in the Wollaston collection in London, it was too difficult to determine whether specimens belonged to the variation of an already described, or to an unknown species (Fig. 5). Initial comparisons of genital morphology were also of little help. It was discovered that the genitalia do not have many structures, and genitalia of very similar species looked very much the same. For example, it might be that the number of spines at the lobes is statistically significant, but to find this out would require many preparations of these tiny structures. Thus, the *Tineidae* from 1995 remained unidentified.

At the beginning of the 21st century, some more moths were



Figure 6. *Opogona ashmolei* is a short-winged *Tineidae* species, which was found at Prosperous Bay Plain in the semi-desert area of St Helena. It is believed, that the short wings protect the individuals from being blown away by the strong winds (photo: T. Karisch).



Figure 7. Annalea Beard worked for more than a decade for the St Helena Government and initiated the re-start of *Lepidoptera* research on the island (photo. A. Beard).

collected or photographed. Linked with the planning of the airport, studies in Prosperous Bay Plain yielded specimens of previously unknown species of short-winged *Tineidae* (Fig. 6). The Ashmoles brought a number of these specimens back to the UK. As a part of the Peaks Project, the Ashmoles and Howard Mendel also collected some moths. These found their way into the museum in London. Based on this material and the specimens from Edith Wollaston, but not my own, Gaden S. Robinson (1949 – 2009) attempted to identify them. His findings on St Helena's *Tineidae* were published in his monumental work on the *Tineidae* of the world, published in 2009. This did not lead to any new descriptions, as Robinson was aware of the restrictions of the limited material, and the complexity of the subject matter.

In 2010, a young scientist named Annalea Beard began working at the conservation department of the St Helena Government, and she started to study butterflies and moths (Fig. 7). She came across



Above: Figure 8. On the endemic tea plant lives the caterpillar of the endemic Marion's Plume moth (photo: A. Beard).

Below: Figure 9. Caterpillar of Marion's Plume Moth (photo: A. Beard)..





Above: Figure 10. Imago of Marion's Plume moth, sucking on a flower of Scrubwood (photo: A.-J. Dutton).

Below: Figure 11. *Agdistis sanctaehelenae* was already described by E. Wollaston. The moth flies in old Gumwood stands like at Thompson's Wood (photo: T. Karisch).



my earlier research and asked me whether I was still interested in identifying moths from St Helena. I had stopped working on the island's lepidoptera after my last publication, and did not expect to be confronted with such a question, but I agreed to attempt to identify them. Annalea sent me many photos, letters, and packages of dried moths, but I still failed to give most of the Tineidae a correct name; the challenges of identification remained.

In 2011, I received a message from Annalea about an amazing plume moth (Pterophoridae). The botanist Phil Lamdon had brought to her attention a caterpillar, which members of the conservation team found on Tea Plant (an endemic Frankeniaceae, Figs 8 & 9). She reared some moths (Fig. 10) from caterpillars obtained from the Great Shaking Rocks in Manati Bay. *Agdistis sanctaehelenae* was already known from St Helena (Fig. 11), but Beard's moth differed significantly. I consulted Ernst Arenberger (1933-2020) (Fig. 12), an Old World specialist on Pterophoridae, and author of many papers on this family and the books of the series "Microlepidoptera Palaearctica". He confirmed the discovery of a previously unknown species. Annalea had not had just the moths, but also the caterpillars and pupae of the species. Specimens of the first instars were stored in ethanol and transferred to Germany. However, neither Ernst Arenberger nor I had experience in describing microlepidoptera larvae. It was Ivar Hasenfuß (1932- 2018), to whom science owes standard literature on caterpillar chaetotaxy. His books and papers were nearly fifty years old, but I was still able to locate and persuade him to participate in the description of Beard's moth, which was named *Agdistis marionae* (Arenberger *et al.* 2012). Arenberger also



Left: Figure 12. Ernst Arenberger, famous Austrian specialist of Pterophoridae, helped to identify the unknown *Agdistis* from St Helena (photo: F. Gusenleitner).

Below: Figure 13: David Pryce (left), leader of several DarwinPlus-projects on the invertebrates on St Helena, and Howard Mendel (right), one of the most distinguished specialists for Coleoptera of St Helena, sitting in Cole's Courtyard and enjoying a typical St Helena Plo (photo: T. Karisch)



barcoded this new species, at that time a new method, sequencing part of the mitochondrial COI-gene. This barcoding was continued with some adults of *Agdistis* collected at different localities on St Helena, revealing the existence of a very similar species in northern parts: *Agdistis cambriana*.

By 2015, three genera with a certain degree of radiation were known from St Helena: *Agdistis*, *Helenoscoparia* and the tineid genus *Opogona*, the last with the majority of endemic species. This changed in 2016. The conservation of plant and bird species had already become a focus on St Helena by the end of the 20th century, as settlement and flax-cultivation had led to widespread devastation of the island. From 2012 onwards, the Darwin Plus project *Bugs on the Brink* (<https://www.buglife.org.uk/projects/bugs-on-the-brink/>) aimed to integrate invertebrates into the strategic conservation efforts on St Helena. One of the results was the Invertebrate Conservation Strategy for 2016–2021 (Cairns-Wicks, Jervis & Kindemba 2016). The St Helena National Trust (SHNT) was successful in applying for funding for a Darwin follow-up programme, *Securing the future for St Helena's endemic invertebrates* (<https://darwinplus.org.uk/project/DPLUS040/>), and Howard Mendel (Fig. 13), a researcher of the island's current beetle fauna, suggested to the programme director David Pryce (Fig. 13), that he invite me to St Helena to give new impetus to butterfly and moth research.

In February 2017, I began collecting not only imagos of the already well known moth families, but also specimens of the previously neglected Tineidae. Light-trapping equipment was sent to the island, as well as mounting boards, mounting strips, pins, and material for the preparation of genital slides (Fig. 14). The initial goal was to obtain a comprehensive overview of endemic species of moths. The locations to be visited were selected by SHNT, and covered a variety of habitats that were home to endemic plant



Above: Figure 14. Light trapping was the preferred method to attract moths on St Helena in the years 2017 and 2018. Here the author was helped by Natasha Stevens, Mariska Fowler, Sasha Bargo, Lakiera Fowler and Amy-Jayne Dutton at Burned Rock (photo: T. Karisch).

Below: Figure 15. Liza Fowler, the author and Sasha Bargo prepare moths at a table in Cole's Courtyard in Jamestown (photo: T. Karisch).



species. It was rightly assumed that the endemic moths might show a relationship to them. Mendel contributed his knowledge from previous stays on St Helena and Ascension Island, of many endemic Tineidae larvae spinning cases to protect themselves from the weather and predators. Several hundred moths were collected in 2017, and subsequently compared with Wollaston's collection at the Natural History Museum in London. As more material was now available for many species to estimate the range of variation, the first species from 2017 could also be identified reliably. At the same time, training was provided to SHNT staff. In Cole's Courtyard, an outdoor workstation was set up, providing sufficient light for butterflies and moths to be pinned and prepared (Fig. 15). In 2018, I was able to visit the island again, and tried to fill in the gaps in the habitats that had not yet been explored. At the same time, it was agreed by SHNT and the St Helena Government to include several habitats without any endemic plants (anymore) in the research program, as results from 2017 showed that the distribution of many endemic Tineidae did not correspond to that of endemic plants. The most serious damage to St Helena's natural environment had taken place before Wollaston's visit in the 19th century. It can be assumed that a number of endemic moth species became extinct in the first 300 years after the discovery of the island in 1502. Nevertheless, it was surprising how many species known from the end of the 19th century are still to be found almost 150 years later. In 2017 and 2018 it became apparent that many of the case-bearing Tineidae did not feed on higher plants at all. Their larvae were found on algae or lichens growing on rocks, cliffs or tree-trunks (Fig. 16). Many cases were collected in 2017 and 2018 in order to breed imagoes, but the results were sobering. Very few moths hatched, and the larvae ate little of the food provided.



Above: Figure 16. Many *Opogona*-cases are to be found in rocky areas, like here at Sharks Valley (photo: T. Karisch)

Below: Figure 17. A paper on the introduced *Chrysodeixis* species on St Helena was published after external and anatomical comparison of the specimens collect on the island and their barcoding.



Although the cases of these Tineids are characteristically shaped, as it is known from the members of the Coleophoridae family in Europe, the first attempt to correlate cases and *Opogona* species failed.

While the comparison of genitalia of externally similar species of Tineidae do not yield any useful results, genital preparations were helpful in identifying many larger moth species. For example, they show the differences between the *Chrysodeixis* species (gold moths; Fig. 17) found on St Helena. In order to share the knowledge gained from such studies with colleagues on the island, a workshop on genitalia preparation was held in 2018.

SHNT suggested producing an identification key for the butterflies and moths of the island. The precursor to this was already designed by Annalea Beard. In 2018, the first copies of the revised identification key were distributed across the island, and an identification workshop was held to help with its use. However, instead of the smallest moths, slightly larger ones were presented to the participants, making it possible to inspire a sense of achievement.

Genital examinations and morphological comparisons helped to identify some invasive species hidden among the endemic ones. Wollaston's *Chrysodeixis dalei* had to be classified as the (North) American Soybean Looper *Chrysodeixis includens*, and Berio's *Hypena helenae* was the common and widespread *Hypena commixtalis*. Hardwick's *Helicoverpa helenae* is likely to face a similar fate. However, a way for identifying the many endemic *Opogona* species had not yet been found. It had to be a sustainable

one, as it was assumed that specimens of this genus collected after 2018 might be in a condition that would not make identification any easier. Since I had already had good experiences with the use of barcoding in taxonomic work, an attempt was made to use the fresh material for barcoding right away. To ensure that nothing was overlooked, the specimens were sorted not only by morpho species, but also by location. One specimen per species and location was sequenced.

The result was a complete success. Obviously, even very similar species are clearly different in their barcodes. In addition, different Barcode Index Numbers were obtained even when genital examinations were unsuccessful in differentiating species that were easy to distinguish externally. These differences in the barcode formed the basis for further descriptions of *Opogona* species from St Helena. In total, there were twelve, including three short-winged species. Two of these differed in their barcodes and the colour of the vestigial wings, while a third differed from these two in size alone. Since the Ashmoles played a significant role in the discovery of these species, the largest was named after them. A beautiful spotted species from Thompson's Wood, named *O. aenea*, was another widespread on the island and honoured Amy-Jayne Dutton's work for the National Trust (Fig. 18). The story of its discovery is described in William Atkins' *Exiles* (Fig. 19).



Above: Figure 18. *Opogona duttonae* Peak Dale

Below: Figure 19. William Atkins, a British writer (in front), and Amy-Jayne Dutton, at that time Head of Terrestrial Conservation of the St Helena National Trust, on a walk in Sharks Valley 2018 (photo: T. Karisch).



A giant cinnamon-brown specimen of *Opogona* had to be named “*gigantea*”, of course. It was obtained at a light-trap on the cliff of Mt Actaeon near the cannon on the path.

Until now, restraint has been exercised when describing species that differ in their barcodes, but for which no or only tiny external differences have been found. The goal should be to make all *Opogona* species morphologically distinguishable, because sequencing can only be carried out in the field in exceptional cases. For this reason, there are a number of individual specimens of *Opogona* that indicate the species diversity is significantly greater than previously expected.

Since the 1990s, the protection and development of habitats on St Helena had become the focus of nature conservation. George Benjamin (1935-2012) and his colleagues collected seeds and cuttings, and cultivated endemic plants to use them in habitat-restoration, and were very successful. With this success arose the question which habitats, which plants and which microstructures could be relevant for the conservation of the nearly 500 endemic invertebrates. Habitat-protection and habitat-development are also important issues for the conservation of endemic moth species; in addition to the name of a species, knowledge of its biology and ecology are required. The first ecological assumptions about the species are recorded in Wollaston's work, and many new findings were added in 2017 and 2018. However, the habitat-mapping carried out during the Darwin Plus-funded project, *Mapping St Helena's Biodiversity and Natural Environment* (<https://www.sainthelena.gov.sh/st-helena/government/portfolios/environment-natural-resources-planning/darwin-initiative/dplus052-mapping-st-helenas-biodiversity-and-natural-environment/>), shows more than 60 relevant moth-habitats. So far, we have only a rough idea of which ones are essential for which species. If we know only the adult moths and some of the habitats in which they occur, but not the biology of the caterpillars, it remains difficult to decide what to do.

Unlike the barcoding of the moths, the breeding experiments in 2017 and 2018 were not very successful. This posed the question of whether the results of barcoding could be used to identify caterpillars as well. After all, we know the barcode of almost 80% of *Opogona* species, and all *Agdistis* and *Helenoscoparia* species. If barcoding of caterpillars were successful, many *Opogona* cases would also be identifiable. With careful collection and documentation, it should be possible to assign (micro)habitats and food-plants. This could provide a clearer picture of which species are restricted to the cloud-forests, for example, and which can also occur outside these habitats without any problems. An extensive search for larvae would thus round off the picture of the biology of St Helena's endemic moth-species. In order to focus on the most important groups and not to get bogged down, special attention was paid to micro-moths, especially *Opogona*. This was submitted as an application for a research bursary at the St Helena Research Institute (SHRI).

Thanks to the approval and generous support of SHNT and SHRI, it was possible to continue the field work on St Helena from February to the end of March 2025. Most of the localities belonged to the cloud-forest zone, so most of the studies took place in these habitats or at alternative sites at the same altitudes. Liza Fowler from SHNT and I conducted a scoping survey. The aim was to identify typical habitats of the cloud-forest zone, including artificial ones. These should display also a characteristic diversity of lichens and mosses, as these were assumed to be larval food-plants. In addition, dead endemic shrubs or dead branches of non-endemic shrub or tree-species should also be available, as the Ashmoles had already identified *O. ursella* as saprophagous. Rebecca Cairns-Wicks (b. 1970), a conservationist



Above: Figure 20. A member of the Peaks team always accompanied the author during his investigations in the cloud-forest zone to supervise the compliance with hygiene regulations (photo: T. Karisch).

Below: Figure 21. These are the Peaks, the highest mountains on St Helena, with Cuckholds Point (left, with the big Norfolk Island Pine), Diana's Peak (middle, with no tree) and Mt Actaeon (right, with a smaller Norfolk Island Pine). Most of the dark green vegetation along the ridge belong to the cloud forest zone (photo: T. Karisch).



and, since September 2025, Chief Minister of Saint Helena, had found *Opogona* caterpillars as antagonists of Redwood and She Cabbage. Since Redwood and She Cabbage are also typical cloud-forest species, they also were studied in detail. Fifteen sites for the extensive study were determined in advance. They were to be visited twice: once to obtain an impression of the small moth-species present during light-trapping, and once to search for caterpillars, document their occurrence, microhabitats and possible food plants. If sufficiently common, samples were placed in 70% ethanol for later description, and in absolute ethanol for genetic sequencing. Both research approaches proved to be very time-consuming. A light-trap session of only three hours on site was associated with about one hour of preparation and one hour of follow-up work. If the light-trap site were difficult to reach, it could take significantly longer. The next day, the larger moths had to be pinned and the smaller ones completely prepared. This work could not take longer than about seven hours because, soon after that, preparations for the next light-trap session had to begin.

The day-trips were also more extensive than previously expected. Upon arriving at a habitat, the only information available from the light-traps was the approximate number of species from each group that could be expected. However, the microhabitats and appearance of the larvae were completely unknown. So the search began from visual investigations on tree-trunks and rocks,



Above: Figure 22. Cases in several shapes and endemic moths like *Opogona piperata*, *pulveripennis*, *aureomarmorata* and others were found on the rocks along the path from Mt. Actaeon to Diana's Peak (photo: T. Karisch).

Below: Figure 23. *Opogona exiguata* only measures a few millimetres and prefers the semi-deserts (photo: T. Karisch)



with no guarantee of finding anything. The search for caterpillars living in dead wood was even more time-consuming. There was no previous experience with non-endemic trees, so during the excursions, countless branches were cut open with a knife and searched, dead trunks were debarked, and rotten rootstocks were opened. If a caterpillar was found, it was numbered, photographed, the circumstances of the find noted, and finally the specimen was preserved in ethanol. For the Peaks, the necessary disinfection work due to the pathogenic fungi found there increased the time required. In addition, the hygiene regulations required sufficiently dry weather, which rarely occurred (Figs 20 & 21).

Even though barcoding and identification of the caterpillars are still pending, interesting insights into the biology of *Opogona* species have been gained. It was already known that many cases can be found on stones, walls, boulders, rocks and cliffs. This was confirmed again in 2025 (Fig. 22). Under stones, the cases are mainly found in semi-deserts, such as on Barn or Bencoolen. Here, there are some unique endemic *Opogona*, like the short-winged and *O. exiguata* (Fig. 23). These are threatened by introduced ants, like the Big Head Ant, as it was found for the Barn summit. Caterpillar cases of different species can be also found in many places on the island on larger stones, walls, rocks and cliffs. However, their occurrence and frequency vary greatly (Figs 24 & 25). This may depend on the species present, or perhaps on microclimatic conditions. For example, cases were extremely rare on rocks in the vicinity of Hoopers Rock, but much more common in Sandy Bay Valley near the chapel. From Sandy Bay Beach to Lot's Wife's Pond, they are rare from the beach up to the ridge, but



Above: Figure 24. A larval case was found on a fruticosa lichen on the Barn by Rebecca Cairns-Wicks (photo: T. Karisch)

Below: Figure 25. These cases are shaped very characteristically and have never been seen anywhere else on the island than on a rock at Sunny Side (photo: T. Karisch).



very common from the ridge to the pond (Fig. 26). In the cloud-forest zone, however, they are found regularly and apparently in several species on rock-surfaces.

Opogona larvae also live in cases on tree-trunks. However, they prefer deciduous trees to conifers, even if the latter are covered with lichen. Larval cases are rare on Gumwood or Scrubwood branches and trunks. The situation on She Cabbage or Black Cabbage could not be investigated, as access to the cloud-forests was not possible. Gumwood and, to a lesser extent, Scrubwood



Figure 26. The cases of an apparently unknown *Opogona* species with short-winged females and regularly winged males are common in this part of the island from the ridges to Lot's Wife Pond (photo: T. Karisch).



Above: Figure 27. Frass tunnel along the twigs of Gumwood. The larva eats the bark and the twigs or small branches are dying subsequently (photo: T. Karisch).

Below: Figure 28. *Opogona scalaris* is one of the bigger endemic *Opogona* species on St Helena with handsome brush-like scale pattern on its forewings (photo: T. Karisch).



have specific wood-dwelling or saprophagous *Opogona* larvae. They can be recognised by frass-tunnels (webbings with frass) on the bark (Fig. 27). The opening to the larval tunnel in the wood is hidden underneath, mostly in the forks of twigs. In gumwood in particular, the larvae cause the small twigs to die when they eat away the bark and thus prevent xylem flow. Whether the saprophagous caterpillars belong to the same species remains to be seen in subsequent investigations.

The larvae of (presumably) *Opogona scalaris* (Fig. 28) live in a similar way in She Cabbage trunks and branches. Feeding tunnels betray their presence. The tunnels in the wood are very short and may serve only as refuges for the caterpillars. The bark is also eaten. However, it is only scraped off very superficially, so the sap flow is maintained and the branches do not die after infestation (Fig. 29). Previous damage to the trees seems to allow for a higher caterpillar infestation. Willow *Acacia longifolia*, Wild Coffee (Fig. 30), and Gum trees are the woods that have been proven to serve as secondary habitats for saprophagous *Opogona* larvae. The decisive factor here is the degree of decay, which is probably achieved only in dead wood that has been lying around for several years. In contrast, no caterpillars have ever been found in *Pinus* wood, while beetle larvae are eating this in large numbers.

SHNT, St Helena Research Institute, and I eagerly anticipate the results of the caterpillar barcoding. It may yield initial insights into the biology of around twenty *Opogona* species, which could lead to targeted conservation-measures, should these prove necessary.



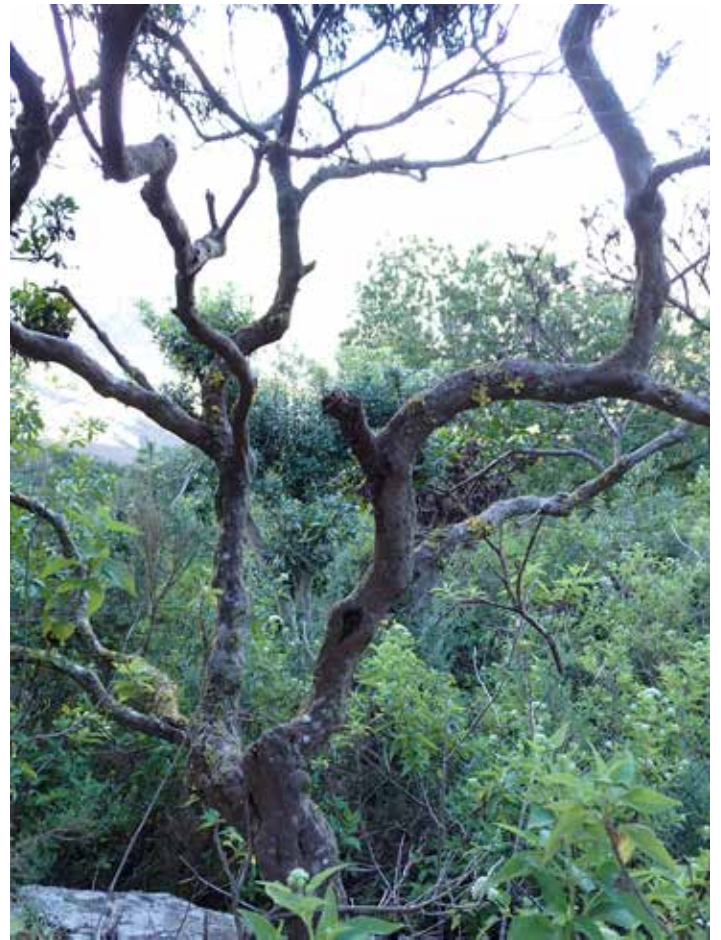
Above: Figure 29. The larva also produces frass tunnels to be hidden from predators. But they just gnaw at the outer surface of the bark (photo: T. Karisch).

Right: Figure 30. Some saprophagous *Opogona* caterpillars also accept introduced trees or shrubs, like Wild Coffee (here close to Hooper's Rock). If they occur there depends on the species of the tree or shrub and the degree of decay (photo: T. Karisch).

The conditions for this are in place, although research into the biology and ecology of all endemic moths on the island should be seen as a task for generations to come.

Acknowledgements

This paper could not have been written without the support of Annalea Beard (SHRI), Liza Fowler (SHNT), Fritz Gusenleitner (St Georgen, Gusen), Jodey Peyton (UKOT Conservation Forum), Anne Welschen & Stéphane Hanot (Musée Royal de l'Afrique



Centrale, Tervuren), and Vanessa Thomas-Williams (St Helena Government). I also want to thank the numerous people on St Helena and around the world who enabled my research on the island, and the identification of the material.

Diversity of the extinct land snail genus *Chilonopsis* of St Helena (Mollusca: Gastropoda: Achatinidae)

The extinct land snail genus *Chilonopsis* (Achatinidae), endemic to St Helena, is revised in the paper noted below, based on existing and new material collected during palaeontological investigations in 2022–2023. The authors recognise nine species, including one from the new material that was previously undescribed: *Chilonopsis lanceoloideus* sp. nov. They review the nomenclature of all species and confirm the recent, but largely overlooked, validation of *C. aurisvulpina*, and the correct spelling of *C. melanioides*. They designate lectotypes for *C. aurisvulpina* and *C. subtruncatus* and synonymise *Bulimus relegatus* Benson with the former. Two species were recorded alive in 1878 and 1884–86 (*C. melanioides* and *C. turtoni*), but neither have been found alive since; the others have only ever been found as subfossil material.

Gerlach, J., Griffiths, O., Hume, J. P., Louchart, A., Sorrel, P., & Cairns-Wicks, R. (2025). Diversity of the extinct land snail genus *Chilonopsis* of St Helena (Mollusca: Gastropoda: Achatinidae). *European Journal of Taxonomy*, 1007(1), 176–210. <https://doi.org/10.5852/ejt.2025.1007.3007>

Second species of non-native gecko found on St Helena

A new paper (below) records *Hemidactylus mabouia* (Moreau de Jonnés, 1818) for the first time from the remote island of Saint Helena, based on a specimen observed by one of the coauthors and several further photographic records verified from the citizen-science platform iNaturalist. Comparison is made with the well-established and widespread *Hemidactylus frenatus* Duméril & Bibron, 1836 which was hitherto the only established gecko known from St Helena. Notes on reptiles on the neighbouring Ascension Island, especially its geckos, are provided.

Sherwood, D., Peyton, J., Cairns-Wicks, R., Fowler, L., Geci, D. and Balchin, J., 2025. Just the two of us: presence of a second species of non-native gecko of the genus *Hemidactylus* Goldfuss, 1820 (Squamata: Gekkonidae) confirmed on Saint Helena. *Faunitaxys*, 13(55), pp.1-5. (<https://hal.science/hal-05325193/>)