



Biodiversity and Well-being Toolkit

for Montserrat



Foreword

A message from Right Hon. Mrs Sarita Francis OE OBE

When I close my eyes and think about what our island might look, sound and feel like, in years to come, I see it all.

A thriving, prosperous community with homes that are safe and sheltered.

Forests and wooded areas teeming with birds. Flowers of the brightest colours alive with busy bees and butterflies.

The sound of the sea brimming with life and children splashing in the gentle waves.

The taste of the juiciest fruit, the freshest vegetables and bush tea shared with friends and family accompanied by a story.

A people educated and knowledgeable, connected to the land and proud to represent us wherever that may be.

These are not just my aspirations for Montserrat; they are global aspirations of the United Nation's Sustainable Development Goals; a vision of how the world can develop sustainability by 2030.

As Executive Director of the Montserrat National Trust for the last decade (and previously in the 1990s), I have seen us develop from the organisation whose mission is to "preserve our present, protect our past". We are achieving this goal with the support of partners both on island and around the world. What is most assuring is that we have a young, dynamic team taking on the challenges our world faces with determination and energy that is very inspiring.

Often the Trust is asked: "What can I do to help protect wildlife? "How can I get involved?". Through this project, we have brought together some of the answers to these questions. It also



provides a way for our community, particularly our youth, to make a contribution towards developing the Sustainable Development Plan and the Sustainable Development Goals.

Most importantly, we have listened to you and we have kept your views in our minds so that we create achievable solutions, while recognising what is important to us as an island community.

The unique wildlife and culture we have on Montserrat matters to us all and it is up to each one of us to do what we can, when we can, to protect them; making sure that the future we want is open to those that come after us and will inherit it all from us.

I extend thanks to our many partners on this project, particularly those who worked on the Toolkit Project. We all learnt so many new things about the Montserrat environment in the process.

Right Hon. Mrs Sarita Francis OE OBE
Director of the Montserrat National Trust

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Hanno blue butterfly
Hemiargus hanno

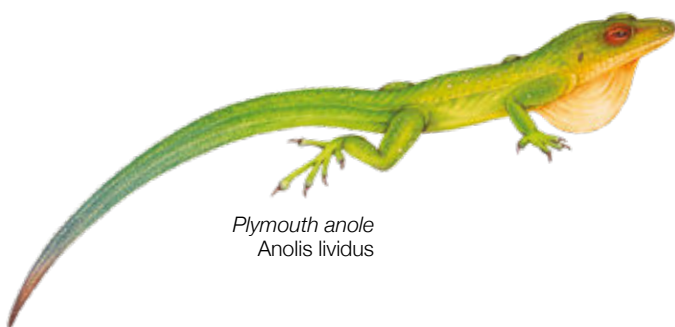


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Plymouth anole
Anolis lividus

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Front cover images (clockwise from top left): Team visiting under-recorded areas, here in the Silver Hills. Endemic 'pribby'. Dry water fall in the Centre Hills Protected Area; after heavy rainfall. Children receiving their colouring and activity book. Tridax daisy Tridax procumbens; a common backyard species and favourite of many pollinators. Building biological collections with findings from Little Bay beach. Tropical chequered skipper, Pyrgus oileus.

Welcome

A message from Monty's Ambassadors

We are proud to have been part of a project that not only celebrated the natural beauty of our island, but also strengthened the voices of young people within our community. Through the biodiversity and well-being activities, we gained a deeper understanding of how closely our environment and our own health are connected. From participating in the art competition to sharing ideas during panel discussions, we found new ways to express our perspectives and learn from one another.

The creation of Monty's Ambassadors has been one of the most meaningful outcomes of this journey. What began as a space for youth engagement has grown into a lasting platform where we can lead, advocate, and support both our environment and each other. We have taken on leadership roles, built confidence, and developed skills that will stay with us far beyond this project.

This experience has shown us that young people are not just participants—we are active contributors to the future of our island. Our actions reach beyond Montserrat's shores, connecting local efforts to global impact as we play our part in



advancing international targets, including the UN's Sustainable Development Goals.

We are committed to continuing this work: raising awareness, protecting our unique biodiversity, and promoting well-being in our communities. We also recognise the importance of unity, care, and shared responsibility as we move forward.

As Monty's Ambassadors, we will continue to speak up, take action, and inspire others to value and protect what makes our island special. This project has planted something lasting in all of us, and we are excited to carry it forward together.

Monty's Ambassadors
Montserrat National Trust, March 2026



*Visit to Duck Pond lead by
DoE's Miss Ajhermae White*

1. Introduction

This document brings together the outcomes, resources, and lessons learned from the Biodiversity and Well-being Toolkit Project on Montserrat.

Developed through community engagement, partnerships, education activities, and biodiversity monitoring, the Toolkit explores the connections between nature, culture, and well-being while providing practical guidance for supporting biodiversity across the island. Alongside management options and monitoring tools, the document highlights traditional knowledge, youth engagement, botanical collections, and local case studies, creating a resource designed to support conservation, learning, and sustainable development in Montserrat and beyond.



1.1

Global biodiversity and Montserrat's unique environment

Montserrat is home to a wide variety of habitats, ranging from dry coastal scrub and thickets to lush wet forests at higher elevations where rainfall is highest. The island's marine environment is also diverse, with deep-sea and pelagic areas. The Centre Hills Protected Area, covering 11 km², is a haven for wildlife and is enjoyed by many. Hiking is a much-enjoyed activity for everyone and there are many trails to discover.

Montserrat is rich in plant life, including species found nowhere else in the world: the Critically Endangered Montserrat orchid, *Epidendrum montserratense*, the Critically Endangered shrub known as pribby, *Rondeletia buxifolia*, and the possibly extinct *Xylosma serratum*. Native palms and other flowering plants reflect both the island's natural heritage and traditional uses by past communities. Many plants that are rare or threatened, including the pribby, are being grown and protected in the Montserrat National Trust Botanical Garden.

The island supports a remarkable array of birds, with over 160 species recorded by island experts. The national bird, the Endangered Montserrat oriole, *Icterus oberi*, only lives in the island's forests. Three types of hummingbirds can be found: Antillean crested hummingbird *Orthorhyncus cristatus*, purple-throated carib, *Eulampis jugularis* and green-throated carib, *Eulampis holosericeus*, alongside the forest thrush, *Turdus iherminieri*.

Coastal and marine species such as brown pelican, *Pelecanus occidentalis*, and magnificent frigatebird, *Fregata magnificens*, are also commonly observed around the island. Montserrat's shorelines provide feeding grounds for migrating and resident shorebirds.

Reptiles and amphibians found on Montserrat include the Critically Endangered Montserrat galliwasplizard, *Diploglossus montisserrati*, and the Critically Endangered mountain chicken, *Leptodactylus fallax*, one of the largest frogs in the



Dry Waterfall following heavy rains, located at the end of a hike through Montserrat's Centre Hills. Reaching the falls is a reward in itself, made more special when the waterfall is flowing.

“

The last time I felt connected to nature was when I hiked to Dry Waterfall and I felt calm and [serene]

”

Young Montserratian, 2023 questionnaire

world. Island conservationists are world leaders in fighting a fungal disease which is not only impacting the mountain chicken, but amphibians across the world. Other unique reptiles include an endemic snake, the Montserrat racer, *Alsophis manselli*, and the ground lizard, also known as the Montserrat ameiva, *Pholidoscelis pluvianotatus*. Sea turtles such as green turtles, *Chelonia mydas*, and hawksbill turtles, *Eretmochelys imbricata*, nest on the island's beaches.

Montserrat's invertebrates are incredibly diverse, with over 1,500 species recorded to date, with approximately 117 single-island endemics and 300 regional endemics, such as the bottle bee, *Melipona variegatipes*, and the Montserrat tarantula, *Cyrtopholis femoralis*. Butterflies, moths, flies, and other invertebrates play important roles in pollination and controlling agricultural pests.

Across Montserrat, both the natural and marine environments are vital for biodiversity, culture, and the island's future, but also for well-being.

1.2 Background to the project

The Biodiversity and Well-being project began because multiple organisations on Montserrat were working to protect the island's plants, animals and traditional knowledge, and they wanted to document and share this with the community.

In 2022, the Montserrat National Trust (MNT) helped lead a UK Research and Innovation project called *From Blue Iguanas to Blue Vervain*, which, on Montserrat, recorded how people on the island have traditionally used medicinal plants. This knowledge comes from the island's Amerindian and African heritage and has been passed down through families for generations.

The project created a booklet documenting uses of 15 local medicinal plants, and when they were shared in 2022, community members showed a strong interest in learning more. This enthusiasm helped spark the idea for a larger, more practical project. It also grew out of the *Adopt a Home for Wildlife* programme, which began in 2021 (DPLUS155). This programme worked with local



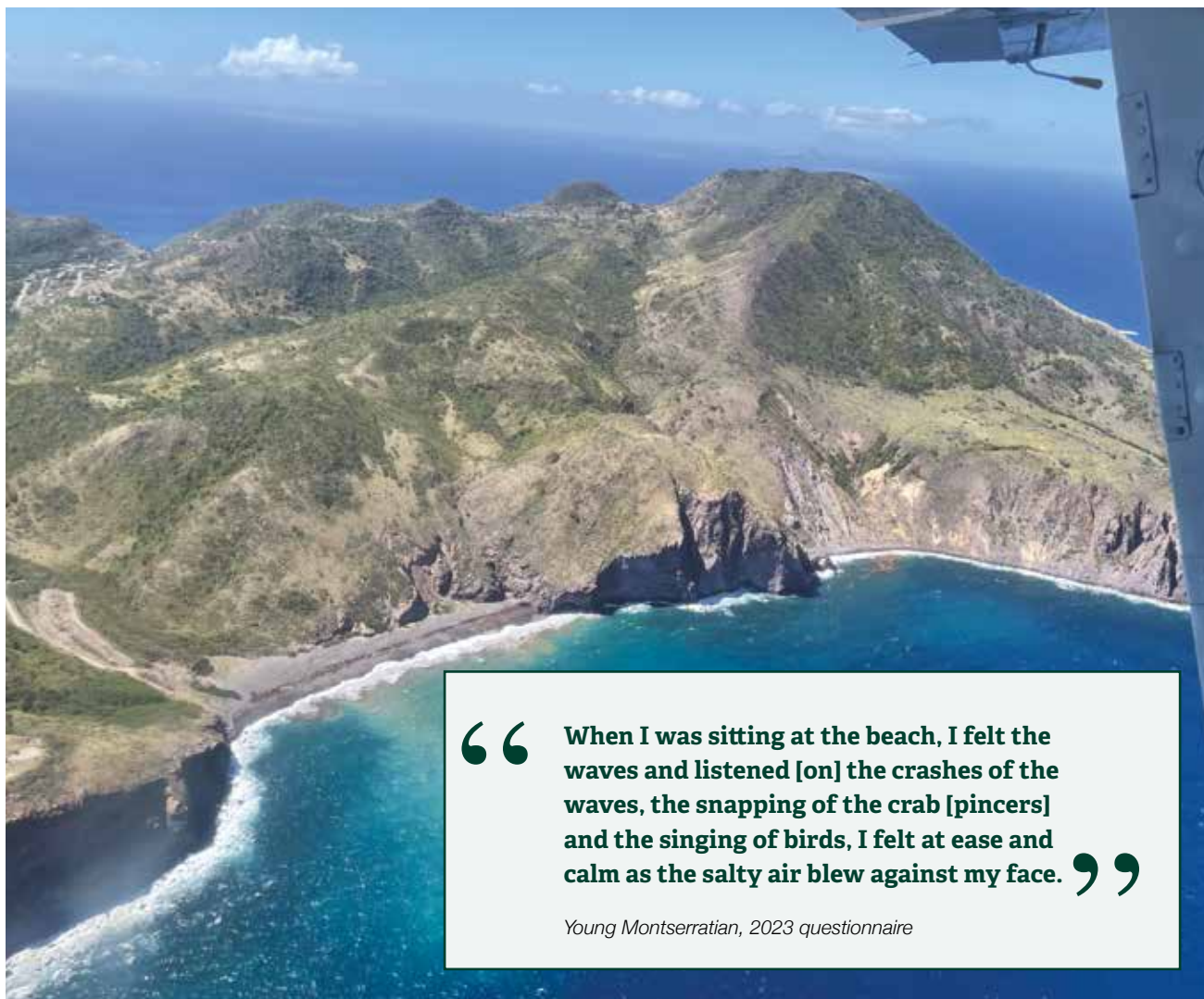
Giant Milkweed (*Calotropis procera*). A non-native hardy shrub of dry tropical landscapes, giant milkweed is recognized by its silvery-green leaves and striking waxy flowers. Its milky sap and drought tolerance allow it to thrive in harsh environments



Buckeye Butterfly (*Junonia lavinia*). This eye-catching butterfly is known for the prominent eyespots on its wings, which help deter predators. It is commonly seen fluttering through open habitats in search of nectar and host plants.



Red-rumped agouti (*Dasyprocta leporina noblei*). A swift and alert rodent, the agouti plays an important ecological role as a seed disperser, but is often an annoyance in cultivated areas.



“ **When I was sitting at the beach, I felt the waves and listened [on] the crashes of the waves, the snapping of the crab [pincers] and the singing of birds, I felt at ease and calm as the salty air blew against my face.** ”

Young Montserratian, 2023 questionnaire

groups to look after important natural areas across the island. Together, they recorded plants and insects, using that information to plan how to look after each site to support those species. It showed that when the community is involved, conservation becomes stronger and more meaningful.

Montserrat, like islands all over the world, is facing pressure from land development. Without guidance, development can unintentionally harm nature. Experiences from many islands show that simple, practical information can help protect nature while still meeting local needs.

This is where the Toolkit comes in. Based on an Natural Environment Research Council project, led by the UK Centre for Ecology & Hydrology, the Toolkit project aimed to share locally sourced information and local resources like the native plant nursery and herbarium, as well as community ideas, to provide easy-to-use advice that supports both people and the environment to thrive.

1.3

Project summary

The Toolkit project aimed to bring together individuals, community groups, government departments, researchers, and environmental organisations to support nature, well-being, and sustainable development on Montserrat.

Funded by the UK Government's Darwin Plus programme (DPLUS192) the project built on the success of earlier work of the MNT and partners including the Ministry of Agriculture Lands Housing Environment Youth Affairs and Sports, specifically the Department of Environment, UK Overseas Territories Conservation Forum, Meise Botanic Gardens Species Recovery Trust the UK Centre for Ecology & Hydrology and others. Since beginning in April 2023 our project focus has been on helping the people of Montserrat play an active role in shaping how the island develops while ensuring nature remains central to its future.

A major part of the work involved creating an easy-to-use set of information and tools that support good biodiversity practices in planning and development. Voices that might not normally be heard in formal consultations were included. Young people, in particular, have been placed at the heart of the project through the creation of Monty's Ambassadors, a youth group. Their involvement has included the running of panel discussions on mental health, a "call to action for nature," and taking part in citizen science events such as bioblitzes, iNaturalist surveys, and Flower-Insect Timed Count (FIT) monitoring.

Specialist input from ecosystem scientists, entomologists, horticulturalists and physical planners has helped shape a practical set of Management Options implemented across the island.

The project is also strengthening Montserrat's scientific and cultural resources. Through this project the MNT once again houses the National Herbarium after it was lost due to the volcanic eruptions. With partners a digital herbarium and a Global Biodiversity Information Facility (GBIF) data portal has been developed.

In terms of materials, the project has developed new publications such as the *30 Medicinal Plants of Montserrat* booklet and illustrated guides including *Grasses of Montserrat*, *Pollinators and Seed Dispersers* and the *Montserrat Garden Plan*.

Through events such as community consultations, art competitions, and education-focused activities, the project benefited from local expertise and knowledge. Throughout 2026, lessons learned were shared with other UK Overseas Territories (including through visits and through UKOTCF's Conference), offering an example to the world on how communities can protect biodiversity while supporting well-being.

The project team considered what formats would be most useful to share information and created them for each purpose. Toolkit elements are spread over several leaflets, booklets and webpages, but are brought together here.

Each of us has a part to contribute to protecting the amazing biodiversity on this earth. The knowledge shared and documented through this project shows that positive change is possible through passionate people on the ground acting for nature.

“

When I am drawing, I tend to go outside and lay on the ground to get a sense of inspiration and tranquillity and while doing this I feel as if I am one with nature.

”

Young Montserratian, 2023 questionnaire



1.4

The Montserrat National Trust Botanical Gardens

The MNT Botanical Gardens were created in 2005. They play a vital role in conserving the island's rich biodiversity while bringing people closer to the value of plants in everyday life. The Gardens have been fundamental to the outcomes of the project in terms of conservation, education and a central hub for activities.



A sample image of the signage produced

Through the cultivation and sale of a wide range of plants, including food crops, native species, and ornamentals, the garden not only generates support for its own continuous development, but also encourages sustainable growing practices to help build resilience across the community.

The Gardens take centre stage at the annual St Patrick's Festival, where its vibrant flower show showcases the diversity and importance of plants, with categories spanning medicinal species, food crops, and decorative varieties. In doing so, the Botanical Gardens connect cultural celebration with environmental stewardship, highlighting how conservation can be both practical and deeply rooted in community life.

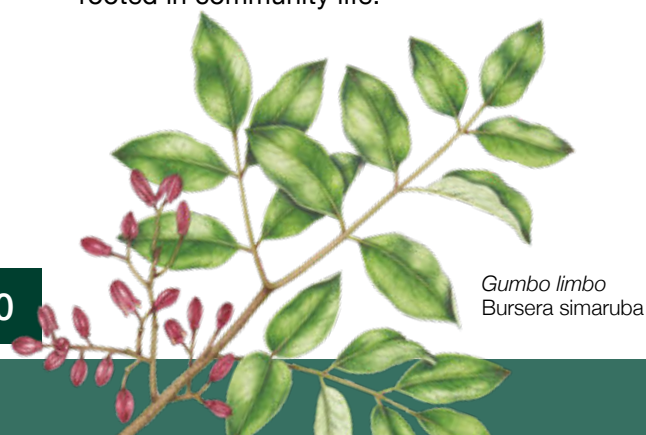


The Gardens in March 2026 (copyright: Sarita Francis)



Flower show exhibits

Cattle tongue
Pluchea carolinensis



Gumbo limbo
Bursera simaruba



2. Tools and information

2.1

Consultations

In November 2023, the project team carried out a series of community consultations to hear directly from people across Montserrat about the future of the island and how it could be developed sustainably. These consultations aimed to gather ideas, opinions, and concerns from a wide range of stakeholders, including community groups, farmers, school students, and residents.

Online questionnaires were chosen because they allowed participants to respond at their own pace during outreach events hosted by MNT, or afterwards making it easier for busy individuals to contribute.



Davy Hill Community Centre

The consultations took place in several locations to ensure accessibility for people from all parts of Montserrat. Two general meetings were held—one at the MNT and another at the Davy Hill Community Centre—which enabled residents from different areas around the island to participate. The team also visited the Farmers Association, inviting local farmers and gardeners to share their experiences and suggestions for sustainable land use. In total, 55 questionnaires were completed.

Young people were involved through a session at Montserrat Secondary School. During this event, pupils learned about the SDGs and were asked to complete questionnaires describing their vision of a sustainably developed Montserrat.

Overall, the consultations provided valuable insight into how Montserratians view the challenges and opportunities for development while protecting the island's unique natural and cultural resources. The feedback collected guided the project in creating tools and recommendations that reflect the community's priorities, helping to ensure that future planning is inclusive, practical, and sustainable. The responses were used to develop a series of Management Options which were practical and achievable across the island.

2.2

Management Options: Development

After the community consultations were completed, the project team reviewed every questionnaire to understand what people felt was working well for Montserrat's environment, where the gaps were, and what practical ideas the community had for protecting the island's biodiversity, and for sustainable development.

Members of the project team read through the responses and noted recurring themes, concerns, and suggestions. These ranged from the need to protect native wildlife and reduce invasive species, to ideas about greener building practices, community gardens, better access to information, and ways to involve young people more actively.

The team combined community feedback with existing Toolkits, including one for UK housing associations, to shape the project. This UK model provided a useful starting point but was adapted for Montserrat's different climate, landscape, and environmental challenges. Sections that didn't fit local conditions were revised to reflect issues like volcanic terrain, limited flat land, native biodiversity, and invasive species. Local examples from consultations were also included.

The result is a set of practical Management Options based on both expert input and community knowledge, designed to support sustainable development, nature, and well-being in Montserrat.

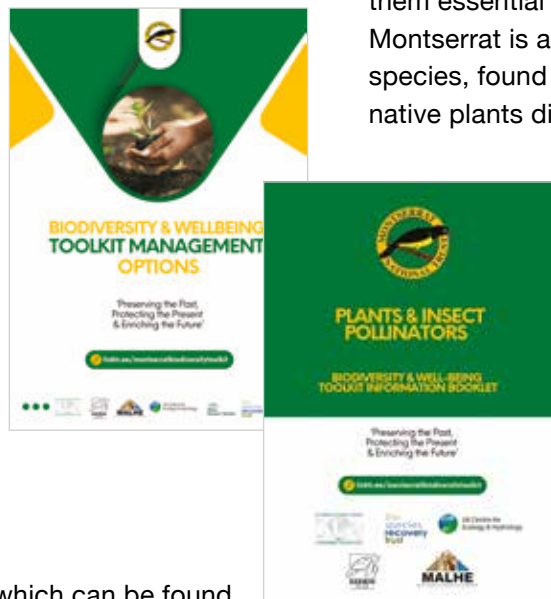
2.3

Management Options: Summary

A set of Management Options were developed to support the community in promoting island development sustainably, while protecting unique wildlife and culture. They cover a range of low-cost, easy-to-implement options with known benefits to people and the planet.

The options are grouped into the following themes:

- Caring for wildlife: Supporting native plants, pollinators and other animals on Montserrat
- Caring for our island: Supporting sustainable living on Montserrat
- Caring for our community: Supporting well-being on Montserrat



A booklet was produced which can be found here:

<https://www.ukotcf.org.uk/key-projects/biodiversity-and-well-being-Toolkit/biodiversity-well-being-Toolkit-management-options>

2.4

Management Options: an Example

To give you an indication of what is included, here is an example.

- **Caring for wildlife: Supporting native plants, pollinators and other animals on Montserrat.**

This Option focuses on helping Montserrat's native wildlife, especially pollinators, by encouraging people to plant and care for native flowering plants. Native plants are naturally adapted to the

island's climate, soil, and rainfall patterns, meaning they grow well with little watering or maintenance. In addition to their beauty, these plants provide important ecosystem services, such as reducing soil erosion, offering shade, and supporting traditional herbal medicine.

Pollinators play a vital role in keeping Montserrat's ecosystems healthy and people fed. While some plants rely on the wind to pollinate and set seed, many depend on animals such as butterflies, bees, moths, hummingbirds and even bats to transfer pollen. Some of these species have evolved unique relationships with specific plants, making them essential for the survival of those species. Montserrat is also home to several endemic species, found nowhere else on Earth. Protecting native plants directly supports these pollinators.

The importation of invasive non-native plants, which can introduce pests and diseases, can be avoided. Instead, native plants can be sourced locally, including through the native plant nursery at the MNT. With irrigation, pruning, and monitoring, pollinator gardens can thrive year-round.

Planting pollinator-friendly gardens is also a great community activity. Local

gardens, schools, neighbourhood groups, and individuals can plant native species and then help monitor wildlife using simple tools like iNaturalist and the FIT Count App (see Section 2.5-2.7). Sightings can help to show how well pollinators are responding to new plantings.

To help residents identify suitable plants and the pollinators they attract, the project has created easy-to-use information sheets for pollinators.

These resources can be found through the Montserrat Biodiversity Toolkit project pages, here: <https://www.ukotcf.org.uk/key-projects/biodiversity-and-well-being-Toolkit/general-resources>

They can also be accessed here: <https://montserratnationaltrust.ms/projects-2/biodiversity-well-being-Toolkit>

2.5

Monitoring biodiversity: tools used and developed – iNaturalist

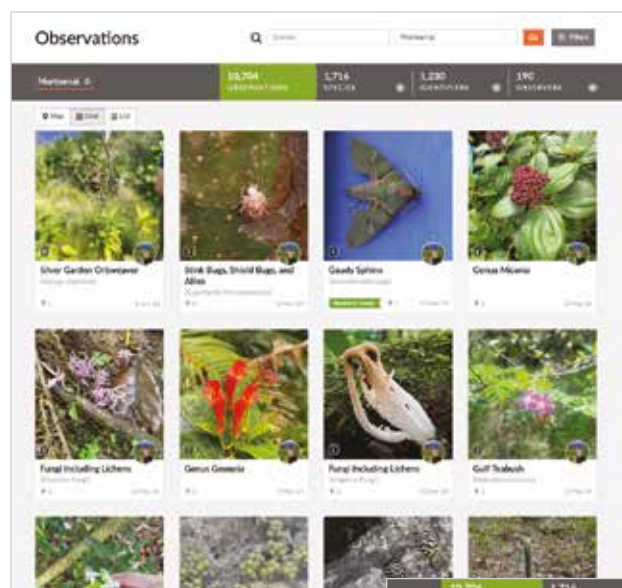
The project is working with many specialists on island and internationally to build check lists and build knowledge of Montserrat's biodiversity. iNaturalist is a platform that empowers everyone to become contributors to scientific knowledge. Sometimes called citizen science, such contributions play an important role in gathering new information. For a small island bursting with biodiversity, every observation counts, and Montserrat's community of nature enthusiasts, students, hikers, and professional scientists has already created an impressive record of the island's living world.

As of March 2026, Montserrat can boast 10,873 observations, of 1,748 species. More than 4,600 of these observations have reached research-grade status, meaning they meet the standards used by scientists and global biodiversity databases, and are available on GBIF. These remarkable numbers highlight just how rich and varied life is on the Emerald Isle. From endemic reptiles to rare forest birds, iNaturalist is helping to create the most complete picture yet of the island's ecosystems.

What makes this possible is a vibrant and engaged community. So far, 189 observers have ventured into the island's forests, coastlines, and gardens to document the species they encounter. Behind them stands an even larger network of 1,225 identifiers from around the world who help verify sightings, offer expertise, and ensure the data is accurate and useful. This collaboration shows the true power of citizen science: people of all backgrounds working together to build knowledge that benefits everyone.

For Montserrat, this growing body of information is more than a digital collection. It will help to guide conservation efforts, support environmental education, and raise global awareness of the island's ecological treasures. Contributing to iNaturalist allows anyone to be part of a global scientific community and a local movement to

Montserrat ladybird (Cycloneda sanguinea). A colourful beetle that helps control aphids and other plant pests, contributing to the balance of tropical ecosystems



- 10,873 observations
- 1,748 species
- 1,209 identifiers
- 189 observers

iNaturalist records
(March 2026)



protect Montserrat's biodiversity. Every photo and every observation helps tell Montserrat's unfolding story of nature. For more information, visit this guide: https://www.ukotcf.org.uk/wp-content/uploads/2025/11/Biological-Recording_iNaturalist.pdf

Anyone wanting to explore local species further can visit [iNaturalist](https://www.inaturalist.org) and join the "Biodiversity of Montserrat" project, where community-made photo guides also provide additional support. Guides created for Montserrat include amphibians and reptiles, native plants, native trees and palms, birds, beetles, bees and butterflies. The guides can be freely downloaded as pdf booklets to assist in identification and education. You can browse all the guides and search by location here: <https://www.inaturalist.org/guides>.

2.6

Monitoring biodiversity: tools used and developed – FIT Count App

Pollinators are essential to maintaining biodiversity, supporting food crops, and sustaining the very landscapes that make the island so special.

As citizen science is growing on Montserrat in exciting new ways, one of the most innovative efforts to monitor pollinators is the island's version of the Flower-Insect Timed Count (FIT Count) app, adapted from the UK Centre for Ecology & Hydrology's FIT Count.

Originally designed to help monitor pollinator activity in the UK, FIT Counts are now used around the world including in another Caribbean UKOT, Anguilla. This tried and tested method makes it easy for anyone to contribute to vital environmental research by recording pollinators, such as bees, butterflies, and moths. The principle is simple: choose a flowering plant, observe it for a short, timed period, and record the insects that visit.

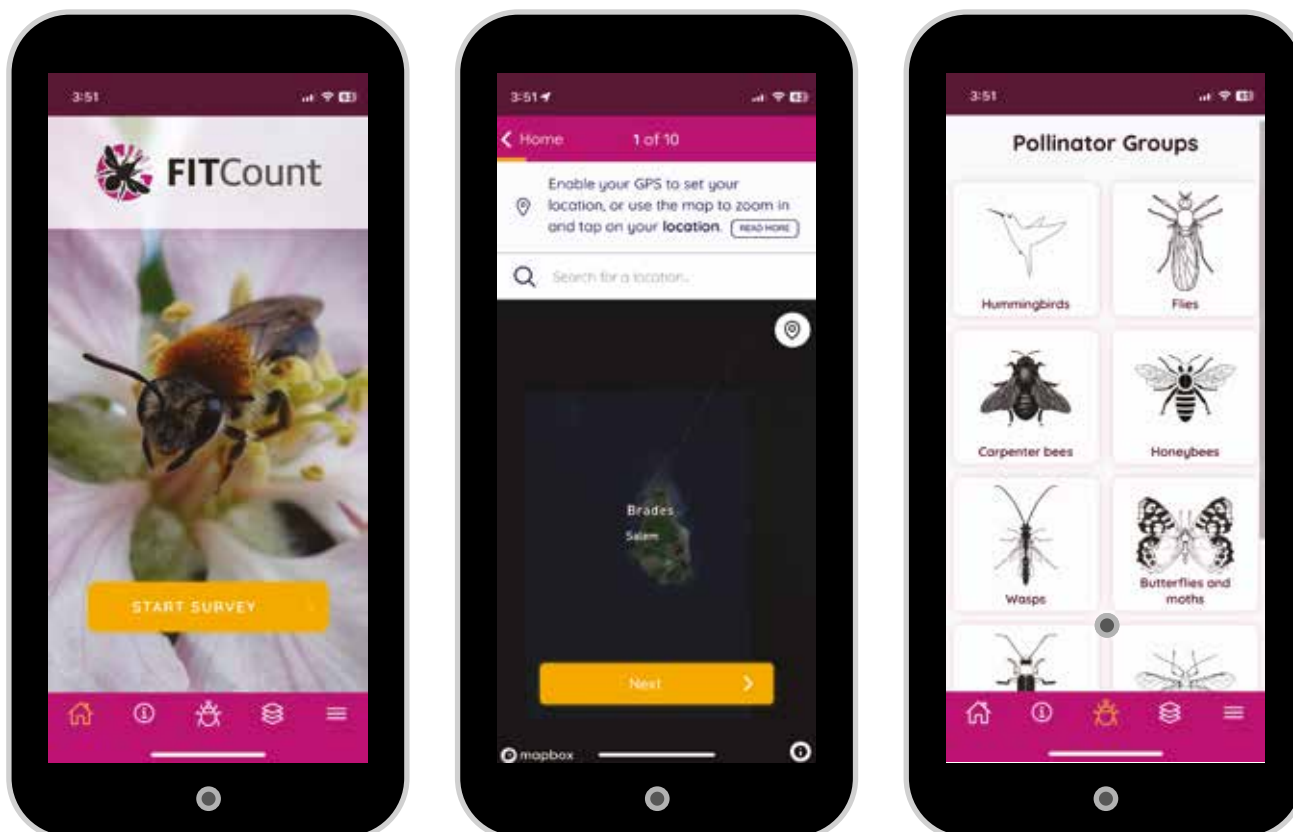


Pollinating hoverfly feeding on creeping daisy Sphagneticola trilobata

The Montserrat-adapted FIT Count app guides you through each step, turning a few minutes outdoors into meaningful scientific data. This method can provide valuable insights into the health of the pollinator populations that keep Montserrat's ecosystems thriving. The app is easy to use, and can be downloaded for free from your smart phone's app store.

A guide to get started is available here: https://www.ukotcf.org.uk/wp-content/uploads/2025/11/Biological-Recording_FIT-Count.png

The home screen and first few pages of the FIT Count app



2.7

Monitoring biodiversity: tools used and developed – Butterfly Count App

The project also adapted the Butterfly Count app for Montserrat, to further support conservation and biodiversity research on the island. The app can be used by researchers, residents, and visitors to record sightings, upload photos, and capture GPS locations. This helps to build a growing database of butterfly pollinator activity.

With features such as species identification guides and offline functionality, it can be used in both accessible and remote areas. This initiative aims to strengthen environmental monitoring while encouraging community involvement in protecting Montserrat's unique ecosystems with butterflies at the heart. They can be indicators of environmental changes, but spending time counting them and or observing them has been shown to improve mood.

The app has different options for recording butterflies and moths in Montserrat, focusing on timed counts, a 1km transect walk, and collecting records from moth trap data.

For the Toolkit we are recommending the timed counts. For the more passionate butterfly and moth people please do try the other methods and help Montserrat understand their pollinator abundance and diversity!

To learn more and download these apps, please visit:

<https://www.brc.ac.uk/app/flower-insect-timed-count-fit-count-app>

<https://www.brc.ac.uk/app/butterflycount-app>



The Butterfly Count has been tailored to Montserrat so that recorders can take photos of the species present

2.8

Montserrat GBIF-hosted Data Portal

What happens to iNaturalist data once it has been collected? Most data collected via citizen science is open-source, meaning that it can be shared widely across the world to assist education, research, understanding and conservation of our planet's wildlife and habitats. A way to search and sort through this data can help to reveal trends, patterns and greater understanding of past and current biodiversity, and to predict what may happen in the future.

One such global data system which requires few resources and is being widely used is the Global Biodiversity Information Facility. This international platform provides free, open access to biological records from around the world from different sources, such as direct observations (through platforms like iNaturalist), and from historic collections in museums and herbaria.

It brings together millions of records of plants, animals, fungi and other organisms, making it easier for researchers, governments, and communities to understand how species are distributed and how ecosystems are changing.



Red-rumped agouti
Dasyprocta leporina noble

For small islands like Montserrat, where biodiversity is unique but sometimes under-documented, GBIF offers a powerful tool for storing and sharing reliable information from current and historic records.

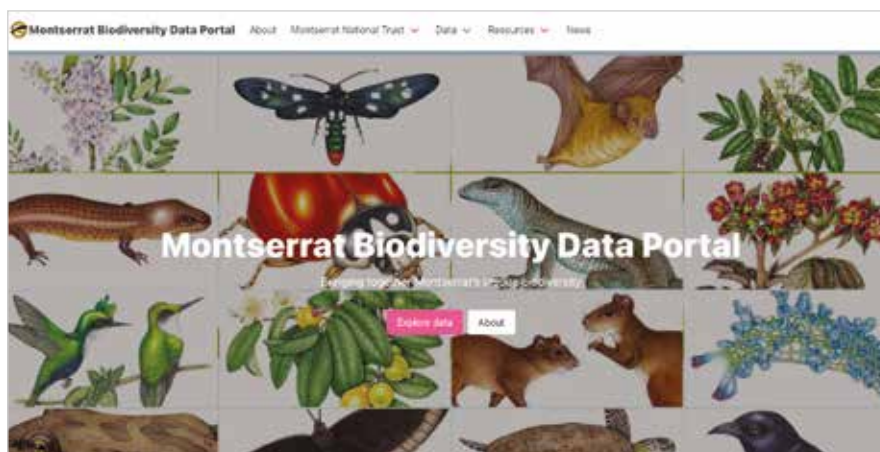
The project team worked with GBIF, and with specialists and knowledge holders on island to develop the GBIF-hosted portal for Montserrat. Montserrat's own GBIF-hosted portal is a simple mechanism to filter millions of global records to a specific area. It's a major step forward in making the island's biodiversity better known, better protected, and more accessible to everyone.

The portal acts as a digital gateway where records collected on Montserrat, whether from scientific surveys, citizen-science apps like iNaturalist, or museum and herbarium collections, are brought together in one place. This central hub allows users to search for species, explore maps, look at habitat information, and rapidly download data for research or planning.

One of the key strengths of the GBIF-hosted portal is that it can help support decision-making. Planners and environmental managers can use the data to assess development proposals, identify sensitive habitats, and monitor changes over time. Students, teachers, and community groups can use it to learn about local wildlife and take part in biodiversity recording activities. Visiting scientists also gain access to up-to-date information that helps guide their fieldwork as well as learning about other initiatives on Montserrat.

For a small island with globally significant biodiversity, the GBIF-hosted portal is more than a database—it is a space for learning about Montserrat's biodiversity, conservation work, and community engagement.

By sharing Montserrat's natural heritage with the world as many other countries around the world have, it strengthens both local pride and international understanding.



Screenshot of GBIF-hosted Portal for Montserrat; the portal is in progress and as of March 2026 it provides a framework of what the portal could do as a way to enable access to data

2.9 Implementing the Toolkit at trial sites

► Montserrat General Hospital Kitchen garden and pollinator-friendly planting

The Glendon Hospital is an essential resource on the island, supporting health and well-being. As part of a multimillion-dollar investment, a new hospital building is being developed. The site was chosen as a trial site as the values of senior staff at the hospital aligned with those of the project. During the project, the plan for a new larger hospital development started to be implemented. The MNT team worked with the staff of Glendon Hospital to ensure that the new planting initiative (including Management Options 5 & 8) was well placed, easy to care for and most importantly included a mix of medicinal plants enjoyed by patients as part of their healing.

In recognition of World Environment Day in 2025, the project team organised an activity bringing together a group of more than 10 participants to install medicinal and pollinator-friendly plants at the site. This was a strong collective effort between project staff and hospital personnel. The Toolkit helped guide early discussions to identify suitable locations for both a functional herbal garden and a visually appealing pollinator-friendly area.

Adjacent to the kitchen, staff were keen to maximise practical benefits, and the Toolkit supported the selection and layout of medicinal “tea-bush” plants such as aloe, *Aloe vera* lemongrass, *Cymbopogon citratus* and peppermint, *Mentha × piperita*. Considerations of which medicinal plants to use included accessibility, ease of maintenance, and proximity to the kitchen for everyday use, ensuring the space could be integrated into hospital routines. For the beautification area in front of the newly operational building, the Toolkit helped shape a planting design that balanced aesthetics with ecological value. By incorporating species like yellow allamanda, *Allamanda cathartica*, blue Daze, *Evolvulus glomeratus* and marigold, *Tagetes erecta*, the space was designed to attract and support pollinators while also creating a welcoming environment for patients, staff, and visitors.



Paracetamol bush growing well in the hospital garden

The project team also used tools like iNaturalist and FIT Counts (2.5 & 2.6) to record biodiversity and monitor pollinator activity, helping to inform planting choices and track ecological outcomes.

The garden’s value has been recognised by senior staff and upon completion of the new hospital, similar gardens will be incorporated. The Toolkit ensured that the project was not just a one-off planting effort, but a carefully planned and collaborative process supporting both community well-being and biodiversity.

► Affordable solar-powered irrigation at the Bliss Day Spa at Drummonds

The Toolkit approach was also implemented at Bliss Day Spa at Drummonds, where there was a focus toward integrating sustainable technology with planting strategies. In this setting, affordable solar-powered irrigation systems were installed. The goal was to support planting in drier areas in the north of Montserrat, the Silver Hills, while maintaining efficiency and minimising resource use.



An affordable solar irrigation system has enabled a vibrant, pollinator-filled area that also allows medicinal plants to thrive and be promoted



MNT worked with the Day Spa emphasising plants with low-water requirements, and those compatible with the irrigation system, ease of maintenance and those with healing properties; demonstrating use of management option 7. A range of medicinal, food and pollinator-friendly plants now thrive in this drier area. It is important to note that installing solar panels requires an electrical permit, since this is an installation, and advice should be sought from the Physical Planning Unit.

This implementation site highlighted the value of integrating technology, conservation, and sustainable food production. It demonstrated that even in resource-limited settings, practical and affordable solutions can be implemented to support both environmental and human well-being. In this case, the Toolkit proved to be a versatile resource for promoting stewardship and resilience in diverse contexts. Going forward, the spa can be used as an educational resource, explaining to visitors how renewable energy and smart planting choices can work together.

► The National Museum of Montserrat cacti garden

The National Museum of Montserrat is located in a drier section of the island, close to Little Bay. Within the grounds of this site, the Toolkit was applied to guide the planting of native and other plant species that can tolerate high temperatures and very dry conditions.

Consultations with the Museum Director explored how plants that are both locally appropriate and resilient to reduced water availability could be successfully introduced and maintained. These included hardy shrubs, succulents, and drought-resistant cacti that require minimal irrigation once established. The Toolkit provided prompts on ground preparation, spacing, and water management, helping to ensure that the planting design maximised survival rates while maintaining ecological value. The aim was not only to be aesthetic but educational, demonstrating to visitors how targeted plant selection can ensure resilience to changing environmental conditions.

Interpretive signage and guided prompts will include information from sections of the Toolkit, encouraging visitors to reflect on how climate variability influences plant choices (see Annex 2 of the Management Options). The approach taken in this example demonstrates that sustainability can be achieved by working with local biodiversity in informed ways. The gravel used in the garden area was locally sourced and could be more widely used in Montserrat for this sort of landscaping.



Montserrat Biodiversity & Well-being Toolkit Community Participation

The Montserrat Biodiversity and Well-being Toolkit aims to empower all of the community to protect the island's unique wildlife and live sustainable prosperous lives. It provides information on how spaces and lives can be transformed with some simple of effective actions. For more on the project visit the main page [here](#)

This form aims to capture contributions from the community. It asks a few questions on how you are using the toolkit. All answers are anonymous, although we do ask for an approximate location of where you are on Montserrat.

Tell us about your contributions

We would like to hear from you.

The Montserrat Biodiversity toolkit management options has three objectives:

- Caring for wildlife: Supporting native plants, pollinators and other animals on Montserrat.
- Caring for our Island: Supporting sustainable living on Montserrat.
- Caring for our Community: Supporting wellbeing on Montserrat.

These could achieved by the following:

1. Encouraging plants that support pollinators
2. Create 'wildlife habitat' for invertebrates
3. Help conserve endemic plant species such as the priority
4. Leave patches (small areas) of land 'to run wild'
5. Grow your own food and medicinal plants
6. Reuse plastic household items
7. Build your resilience and be climate smart
8. Grow a tea bush garden
9. Plant to create shade and shelter space trees and shade

Tell us more about your contributions in two simple steps:





Platform on UKOTCF's website for recording where the Toolkit has been used. This information can be used to create a map of where the Toolkit has been used across the island

2.10 Reporting use of the Toolkit

Through the project we have developed an online, open access interactive tool to capture how people are using our biodiversity and well-being Toolkit on Montserrat, based on the International Union for Conservation of Nature framework of people's contributions to nature. The platform sits on UKOTCF's website and allows users to click directly on a map of Montserrat, automatically recording their approximate location, and then select which aspect of nature they have supported.

This simple, participatory tool not only generates spatial data on how biodiversity supports well-being across the island, but also acts as a practical way to engage the community, encouraging residents to recognise and share their everyday interactions with nature. As of March 2026, seven contributions have been recorded.

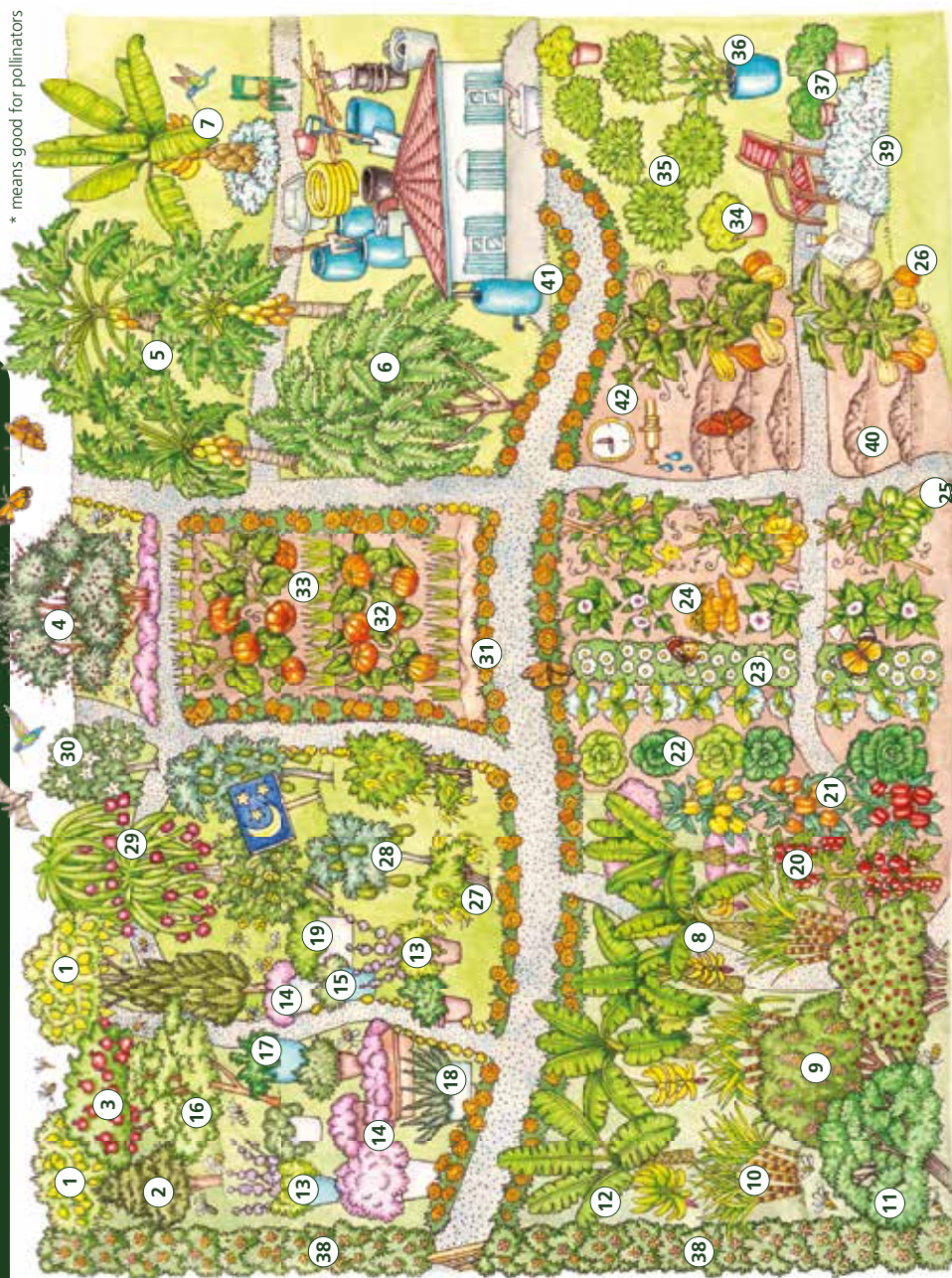
It can be accessed here:

<https://www.ukotcf.org.uk/key-projects/biodiversity-and-wellbeing-toolkit/montserrat-biodiversity-well-being-toolkit-community-participation/>



MONTSERRAT GARDEN DESIGN

This design is modelled on a real back-yard garden on Montserrat. It is possible to create everything you need to live a happy and healthy life.



* means good for pollinators

WOODY PLANTS

A variety of shrubs and small trees can create shade, foods and medicines and lessen storm damage

- 1 Lemon
- 2 Bayleaf*
- 3 Pomegranate*
- 4 Gumbark
- 5 Papaya
- 6 Rainfall bush
- 7 Dwarf banana
- 8 Banana
- 9 Barbados cherry
- 10 Sugar cane
- 11 Mulberry
- 12 Plantain

MEDICINAL PLANTS

Plant paracetamol bush in pots as this spreads. Allow thyme to flower for the bees

- 13 Paracetamol bush
- 14 Thyme*
- 15 Marjoram*
- 16 Broadleaf mint
- 17 Mint
- 18 Rosemary*
- 19 Basil

VEGETABLE PLOT

Mulch the soil below each plant and don't plant families together as they have the same pests

- 20 Tomato
- 21 Pepper
- 22 Lettuce
- 23 Tridax daisy*
- 24 Sweet potato

- 25 Melon
- 26 Squash

MOON AREA

Plants with night scent and perfume that open at night

- 27 Ylang ylang*
- 28 Avocado*
- 29 Dragon fruit*
- 30 Noni*

COMPANION PLANTS

This enables different plants to benefit from being planted with another e.g. maximising space, managing pests and improving success

- 31 Marigold*
- 32 Pumpkin
- 33 Spring onion

OPEN AREA

Leave space for seasonal growth, like sorrel for Christmas

- 34 Coriander
- 35 Sorrel
- 36 Ginger
- 37 Parsley

GARDEN CARE

The garden can thrive with some simple measures e.g. goats will be deterred by certain plants or a prickly hedge, such as sweet lime

- 38 Pribby hedge*
- 39 Compost heap
- 40 Mounds of soil
- 41 Water butt
- 42 Irrigation

Created for the DPLUS192 Biodiversity and Well-being Toolkit project (2024 v1); Design by MNT, UKOTCF & MAHE; Illustrations by Lizzie Harper; Layout by Field Studies Council.



2.11

Montserrat garden plan

Sometimes it is hard to know where to start and what plants should be planted where. To overcome this, the team developed a detailed garden plan inspired by Mr Elvis Gerard's remarkable garden, drawing on his thoughtful techniques and deep respect for nature. Over the course of several visits to his gardens, we took comprehensive notes on his approach to *companion planting*—the careful placement of plants to support each other—and his use of *integrated pest management*, where natural predators, plant diversity, and cultural practices reduce the need for chemicals. These insights guided the garden plan's design, which aimed to capture the harmony, resilience, and quiet ingenuity of Elvis's work.

Once the concept was drafted, we transformed our notes into a hand-drawn sketch and passed it to our colleague, artist Lizzie Harper, who beautifully brought the vision to life with her detailed illustration. The design is shown on page 20 and looks remarkably like Elvis's garden! The black and white version was produced as a colouring and mindfulness activity. The full guide can be used to help re-create versions of the garden (see page 20 for download link).

2.12

Importance of herbaria

What is a herbarium?

A herbarium is a scientific collection of preserved plant specimens used for research, education, and conservation. Specimens are carefully collected, identified, dried, mounted, and stored so they can be studied for many years.

What does a herbarium cabinet contain?

Herbarium cabinets are specially designed to protect specimens from light, moisture, dust, and pests. Inside, they usually contain:

- Mounted plant specimens stored in archival folders

- Labels with scientific names, collection dates, locations, and collector information
- Reference collections for plant identification
- Dried samples of leaves, flowers, fruits, seeds, and stems
- Protective materials to reduce insect or fungal damage

How is a plant specimen preserved?

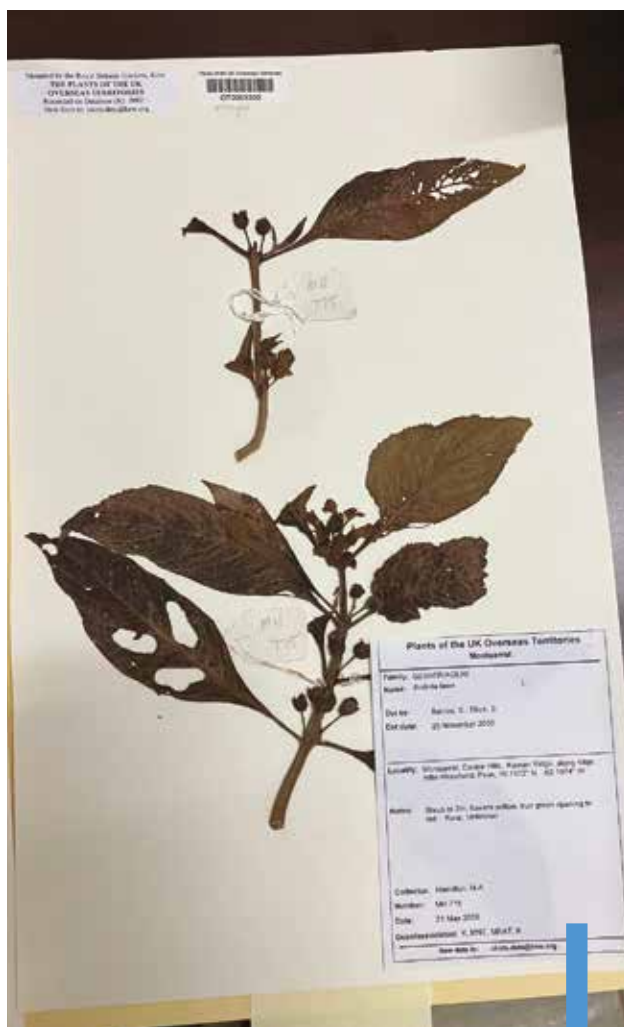
1. **Collection.** A plant sample is collected in the field, including important features such as leaves, flowers, fruits, and stems.
2. **Pressing and drying.** The specimen is placed between sheets of paper and pressed flat using a plant press. It is then dried carefully to prevent decay.
3. **Identification.** Botanists identify the species and record information about where and when it was collected.
4. **Mounting.** Once dried, the specimen is attached to archival paper using glue, linen tape, or stitching. Fragile parts may be placed in small paper packets attached to the sheet.
5. **Labelling and storage.** A label containing scientific and collection information is added before the specimen is stored safely inside the herbarium cabinet.

Why are herbaria important?

Herbaria preserve provide a permanent record of plant diversity. They help scientists and conservationists:

- Identify species
- Study environmental change
- Track invasive or endangered plants
- Support conservation and ecological research

Even specimens collected hundreds of years ago remain valuable scientific records today, although many were lost during the volcanic eruptions.



Herbarium sheet showing pressed specimen and label

What a specimen label includes:

- Scientific name (Latin name)
- Common name (if known)
- Plant family
- Collector's name
- Collection number
- Date collected
- Location of collection
- GPS co-ordinates or elevation (if available)
- Date identified
- Herbarium or institution name

The Montserrat National Herbarium also includes an iNaturalist observation record for new specimens



Storage of herbarium sheets

2.13 National Herbarium for Montserrat

Prior to the volcanic eruptions in the 1990s, the Montserrat National Herbarium was located within the MNT in Plymouth. Through this project, the National Herbarium is now located in the MNT Botanical Gardens for Montserrat and its people. The Herbarium functions as a central facility for plant collection, identification, storage, and research for Montserrat. The collection is being digitised using a platform called PlutoF. This provides a structured, accessible place for digital specimens of Montserrat's flora, supporting conservation planning, education, and environmental management.

Local leadership including MNT's and the Department of Environment's expertise along with institutional partnerships with Meise Botanic Garden (MBG), Royal Botanic Gardens, Kew (RBGK) and UKCEH and others have all supported the creation of this database with systems and standards for herbarium management.

Online and in-person engagement and training at Meise Botanic Garden and RBGK in seed propagation further strengthened the link between herbarium work and wider conservation actions. This ensures that plant collection is complemented by knowledge of how to grow and preserve species.

Equipment purchases via several grants from the International Plant Taxonomy Association (IPTA) has meant that Montserrat now has both the physical infrastructure alongside the digital tools needed to manage and share its botanical knowledge effectively.

Several events were organised during the project to assist with the mounting of specimens collected for the National Herbarium. These were not only valuable for processing material for preservation, but mounting sessions provided a calm, hands-on activity encouraging mindfulness, creativity, learning, and connection with nature, supporting both well-being and community engagement. Several sessions were held throughout the project.

2.14 National Museum of Montserrat and Natural History Collections

Natural history museum collections are important because they preserve physical records of life on Earth, allowing scientists to study species, ecosystems, and environmental change over time. They support education and public engagement by helping people understand the natural world, while guiding conservation efforts by showing how habitats and species have changed across generations. Collections provide evidence for research in areas like biodiversity, evolution, and climate change. Museum natural history collections are the only places where we can view remains of extinct species.

At present, the National Museum of Montserrat has a small number of natural history specimens. A special collection for the museum was created for the St Patrick's celebrations in 2024, showcasing the fascinating finds gathered by Monty's Messengers during a beachcombing activity at



National Museum of Montserrat specimens

Little Bay. The collection featured an array of natural and man-made objects washed ashore, from shells and coral fragments to unusual debris, each with a label capturing some information about the island's coastal environment. The objects were displayed as part of the museum's exhibition on Montserrat's indigenous peoples.

As part of *Blue Iguanas to Blue Vervain*, details of natural history specimens collected in Montserrat but held in overseas museums were highlighted. We hope to work with the museum to further develop natural science collections in Montserrat, beyond the herbarium and entomology collections held elsewhere, enabling people living in Montserrat to learn more about their natural heritage.

3. Well-being and traditional knowledge

3.1

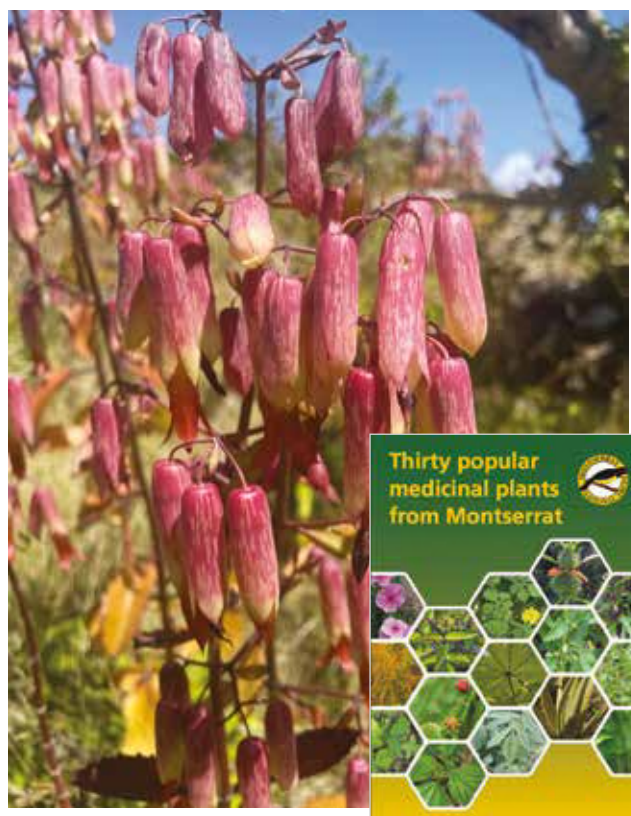
Supporting culture and well-being: Introduction and history for Montserrat

Biodiversity, or the variety of life on Earth, is closely connected to human well-being. One increasingly recognised and important link for many people around the world, including the Caribbean UKOTs, is through medicinal plants, which people have used for centuries to treat illnesses and support health.

These plants are not only important for medicine, but also carry cultural and traditional knowledge, showing how humans and nature are deeply connected. Scientists and communities alike recognise that protecting plant diversity helps both ecosystems and people.

Another important link is through art and culture, which also play a key role in connecting biodiversity to well-being. Plants often appear in art, from drawings and paintings to crafts and festivals reflecting their importance in daily life and spiritual practices. Engaging with these cultural expressions supports mental health, strengthens communities, and preserves traditional knowledge. Researchers have studied these connections in depth around the world.

In *Potions, Poisons, and Panaceas: An Ethnobotanical Study of Montserrat* (1997) Brussell's research was based on extensive interviews with the local community, collecting oral histories about plant use. It highlighted community understanding of plant use, linking biodiversity with health, culture, and identity. He emphasised that conserving plants is not only about protecting nature, but also about preserving human traditions and knowledge.



Leaf of life (Kalanchoe pinnata), a medicinal succulent widely used in traditional remedies for wound healing, inflammation, and respiratory ailments

Linking biodiversity, medicinal plants, and culture enables a more complete picture of human well-being to be seen. Protecting plant diversity is not just an environmental issue, it is an everyone issue; it is about maintaining health, creativity, and cultural heritage. Recognising such connections offers opportunities for education, sustainable development, and policies that value the many ways biodiversity contributes to our physical, mental, and cultural well-being.

As mentioned, through the project, a second edition of popular medicinal plants from Montserrat was published. Alongside this, an additional set of illustrations was developed by Lizzie Harper. The MNT is exploring how to use these images in a variety of ways including on merchandise available from the MNT gift shop in Salem.

3.2

Supporting culture and well-being: Montserrat's use of 'weed and bush' teas

In Montserrat, the practice of 'weed and bush' medicine reflects a deep-rooted tradition of using local plants for healing, nourishment, and everyday well-being. Passed down through generations, this knowledge draws on the island's rich biodiversity, where herbs, leaves, and roots are carefully selected to create teas for a wide range of purposes. Plants such as lemongrass, soursop, and guava are widely used, each valued for its specific properties and often combined in blends tailored to individual needs.

This tradition is closely tied to what many Montserratians call 'backyard farming'. Small household plots serve as living pharmacies, where families grow both food and medicinal plants side by side. These spaces are more than practical—they foster self-reliance, cultural continuity, and a close relationship with the land. Tending a backyard garden encourages physical activity, access to fresh, chemical-free ingredients, and a daily connection to nature, all of which contribute to overall well-being. The act of preparing and drinking bush tea is also social and reflective, reinforcing community bonds and a slower, more mindful pace of life. In this way, weed and bush practices are not just about remedies, but about sustaining a holistic lifestyle rooted in nature and tradition.

Tea towel design using artwork by Lizzie Harper has been a popular item sold in the MNT gift shop.



Monty's Messengers have fun creating tea bags from dried plants found in the botanic garden

MNT has been working throughout the project to preserve and celebrate this valuable knowledge by partnering with the island's tourism sector. Through collaborative initiatives, they are exploring how weed and bush traditions can be developed into a distinctive and sustainable tourism product. This includes guided experiences where visitors can learn about medicinal plants, visit backyard gardens, and understand the cultural significance behind these practices. Educational activities are also being introduced, such as hands-on workshops where participants create their own herbal tea blends and even assemble tea bags using locally sourced plants. These efforts not only enhance visitor experiences but also empower local communities, ensuring that traditional knowledge is respected, preserved, and shared in meaningful ways for future generations.

Some trial mugs with the designs. At the time of writing, ways to expand marketing around these collections are being explored



4. Education and youth programme

4.1

Monty's Messengers' and Monty's Ambassadors' activities

The education programme developed by MNT through this project, is a dynamic, youth-driven initiative that bridges environmental awareness, personal development, and community engagement. Building on earlier work with primary school students through the Monty's Messengers group, the Trust recognised a gap in opportunities for older youth.

This gap was highlighted during a radio discussion, when several secondary school aged participants asked a simple but important question: *what about us?* In response, the MNT began supporting the development of Monty's Ambassadors programme to engage secondary school students and young adults, giving them a platform to shape their own experiences and to contribute towards conservation efforts on Montserrat.

Monty's Ambassadors was designed to be youth-led. The Ambassadors have taken ownership of the group by organising themselves, developing a distinct identity, and even creating their own logo.

An event organised for Monty's Messengers



Regular communications via WhatsApp and physical meetings provide a space for planning, discussion, and collaboration, allowing members to identify priorities and design activities that reflect their interests. Fundraising efforts were also initiated by the group, helping to support their ambition to lead projects, while building practical skills in teamwork, leadership, and communication.



An event organised by Monty's Ambassadors

Monty's Ambassadors actively connect environmental action with well-being and personal growth. They have led and taken part in panel discussions on mental health, exploring how time in nature supports resilience. These conversations, shared on national radio, Radio ZJB, help open up dialogue around mental health while highlighting the value of Montserrat's natural environment.

They have helped to organise the Higher Education Evenings, linking young people with professionals and guest speakers to explore academic and career pathways, broadening opportunities while staying connected to their community.

Hands-on environmental work is at the heart of their activities. From nature walks and wildlife monitoring to conservation projects, Monty's Ambassadors build practical skills and deepen their understanding of biodiversity.

Creativity is also key—through art competitions, workshops, and classes, they express connection to nature and share it with the wider community.

Monty's Messengers and Monty's Ambassadors will continue beyond the project through MNT. To set up similar initiatives, organisations can start by creating a simple structure including a regular meeting space, light guidance, and a clear identity, while allowing young people to lead on ideas and activities. Building partnerships and offering a mix of environmental, educational and creative opportunities helps sustain engagement, ensuring the programme remains relevant and inclusive.

Youth programmes can move beyond participation to genuine empowerment, creating confident, capable young people who actively shape their communities and environments. More about this programme is available from MNT.

In addition to this, MNT's education programme demonstrates how youth engagement can be both structured and flexible, providing guidance while allowing space for initiative and creativity. Monty's Ambassadors, in particular, illustrates the value of listening to young people and responding to their needs. By empowering participants to lead, the programme not only strengthens environmental awareness but also nurtures confident, informed individuals who are actively contributing to the cultural and ecological future of Montserrat.

4.2 Educational resources

The development of education resources has taken place on several levels during this project, targeting both schools and the public. Recognising that effective environmental education requires materials that are engaging, and relevant to Montserrat, MNT worked closely with local and international experts to draw on traditional knowledge and island-specific information. There was also input from project partners such as the Department of Environment, Meise Botanic Gardens, UK Overseas Territories Conservation Forum, the Species Recovery Trust, and the UK Centre for Ecology & Hydrology, ensuring that scientific evidence and expertise of educators informed the development.



MNT's Virginie 'Chris' Sealys hands over a copy of 30 popular medicinal plants from Montserrat to Kenneth "Rabo" Silcott, Director of the Montserrat Arts Council, in support of preserving and celebrating the island's traditional plant knowledge



A number of educational resources were produced, including:

- Pollinators and seed dispersers guide
- Common grasses of Montserrat guide
- Children's activity & colouring Book (see below)
- Online environmental education resources
- National Curriculum-linked teaching resources

The resources are all available online from the project website pages, and can also be downloaded.

4.3

Montserrat biodiversity illustrations

A key part of the development process for the materials was the accuracy of the illustrations. Lizzie Harper has made a significant contribution to the visual documentation and celebration of Montserrat's natural heritage through her detailed and scientifically accurate illustrations. Her work captures the island's unique flora and fauna with clarity and precision, helping to communicate complex ecological information in an accessible and engaging way.

By illustrating native and endemic species Lizzie's artwork supports environmental education conservation awareness and the work of local organisations including MNT. Her illustrations have been used throughout the project and will continue to be used for long afterwards. They not only serve as valuable identification tools, but also highlight the beauty and distinctiveness of Montserrat's biodiversity, inspiring appreciation and stewardship among both residents and wider audiences. Moreover, this work is inspiring young artists to explore their creative side.

You can learn more about Lizzie's work at www.lizzieharper.co.uk.

Sarita Francis OBE (left) being presented with original biodiversity illustrations by Lizzie Harper (right)



4.4

Teaching resources

The teaching resources have been made available online for use on Montserrat, but also as a guide for similar initiatives where material for teaching is based on local context. This sort of approach is important because science teaching becomes more relevant when children can relate local examples to their lessons. For example, learning about the structure of a flower makes more sense when using a familiar Montserratian plant, rather than a British or American example.

Through consultation with educators, teachers and the Government of Montserrat's Department of Education, the materials were created to link to Montserrat's new National Curriculum, making them easily accessible for teachers and adaptable for classroom use. The resources were shared with teachers during training sessions, helping educators integrate local environmental knowledge into their lessons. The materials have been uploaded to UKOTCF and MNT webpages, ensuring long-term accessibility.



The team delivers the Activity Book to Brades Primary School

These are included in the links section. The home page provides an overview, and the navigation bar at the top provides an easy route to more detailed pages.

The teaching materials explore the links between biodiversity, nature, and well-being in Montserrat through a range of interactive topics and activities. The resources introduce the concept of biodiversity and highlight Montserrat's unique plants, fungi, invertebrates, and vertebrates, helping learners understand the importance of the island's natural heritage.

Activities focus on nature connections and ecological processes such as pollination, seed dispersal, lifecycles, food webs, and animal homes. The materials also encourage creative and well-being-focused engagement with nature through beachcombing, botanical rainbow activities, wildlife-friendly gardens, and art and nature exercises.

Together, these resources are designed to support environmental education, outdoor learning, creativity, and well-being, while encouraging stronger connections with Montserrat's biodiversity.



4.5 Colouring and Activity Book

A key part of the educational materials was a colouring and activity book. All 345 primary school-aged children in Montserrat were given their own booklet. These were presented during special assemblies at Brades, Look Out and St Augustines, where the children shared experiences about Montserrat's unique biodiversity.

5. Wider significance of Toolkit

5.1

Contributing towards international targets (UN Sustainable Development Goals and the CBD's Global Biodiversity Framework)



Montserrat, like all nations and territories, plays a vital role in achieving the United Nations Convention on Biological Diversity's (CBD) Global Biodiversity Framework Targets (GBF) and the United Nations Sustainable Development Goals (SDGs) by protecting its unique ecosystems, empowering communities, and sharing knowledge.

The biodiversity and well-being Toolkit has made a strong contribution to both Montserrat's local priorities and international commitments, including the SDGs and the GBF. Community participation has been central, with over 100 people engaged through consultations, including women and young people, supporting SDG 16 (inclusive institutions) and GBF Target 22 (participation and inclusion). Capacity building has also been a key outcome: local organisations, particularly MNT, have strengthened their ability to manage biodiversity through training, placements, and practical experience. This includes conservation horticulture training by Leigh Morris (see his blog on the project pages). A recommendation of Leigh's which has been taken up by MNT is membership of Botanic Gardens Conservation International (BGCI), alongside collaboration with experts such as MNT's visits to Kew in London and Meise Botanic Garden in Belgium — supporting SDG 17 (partnerships) and GBF Target 20 (capacity development). Training in seed conservation by Kew's team delivered online has also proved invaluable to MNT.

Environmental and social benefits include approximately 2,000 plants grown and sold, contributing to climate resilience, sustainable livelihoods, and reduced reliance on imports, aligning with SDG 13 (climate action) and GBF Target 12 (green spaces and biodiversity integration). The Toolkit was also successfully trialled at multiple sites, helping to reduce key drivers of biodiversity loss, in line with GBF Targets 1 and 2 (ecosystem restoration and management).

Data and evidence generation have been another major success. More than 10,000 biodiversity records were collected through citizen science initiatives, far exceeding initial targets and contributing to global datasets and reporting processes, supporting SDG 15 (life on land) and GBF Target 21 (knowledge and data sharing). UKCEH's Dr Mark Botham and Dr Alan Gray have provided technical advice and have facilitated future planning of conservation in line with international best practice. Knowledge exchange has extended across UK Overseas Territories through webinars and events, further strengthening regional collaboration including MNT, Meise and UKOTCF's presentation at the UKOTCF Conference in 2025.

Overall, the Toolkit shows how locally led, practical action can deliver meaningful progress against global biodiversity and sustainable development goals, while building long-term capacity and resilience in Montserrat.

5.2

Replication and wider use

► Important considerations for developing a Toolkit

- Ensure strong links between local priorities, biodiversity conservation, and community well-being.
- Co-design with stakeholders from the outset, including young people and community groups.
- Keep outputs practical, adaptable, and easy to use in real-world settings, with particular attention to island contexts where space, resources, and environmental conditions can vary significantly.
- For recommendations on planting native species, take into account local microclimates, different habitat types, and site-specific conditions to ensure appropriate species selection and improve survival and ecological success.
- Build in flexibility so tools can be scaled or adjusted for different sites and contexts. For

example, the FIT Count app was adapted for use in Montserrat through important bespoke adjustments, including the selection of locally relevant plant species. The team placed particular emphasis on incorporating flowering plants featured in the medicinal plant booklet, building on strong community interest in traditional uses. This helped to strengthen local engagement while ensuring the monitoring approach reflected both ecological priorities and cultural knowledge.

- Plan for long-term use beyond the life of the project, including institutional ownership and resourcing.

► Important considerations for monitoring biodiversity

- Citizen science can greatly increase the amount of biodiversity data collected across large areas and over longer time periods.
- Platforms such as iNaturalist make recording wildlife accessible and encourage public participation.
- Training and simple identification guides improve confidence and data quality for volunteers.



- Regular communication and feedback help maintain volunteer engagement.
- FIT Counts (Flower-Insect Timed Counts) provide a quick and effective way to monitor pollinators and plant–pollinator interactions.
- Bioblitz events are valuable for engaging communities, raising awareness, and rapidly documenting species diversity.
- Combining public events with expert support improves species identification and learning opportunities.
- Specialist surveys are still essential for difficult-to-identify groups, rare species, and habitats requiring technical expertise.
- Different survey methods capture different types of biodiversity, so using a combination of approaches provides a more complete picture.
- Standardised methods and consistent recording are important for comparing results over time.
- Recording accurate locations, dates, and habitat information increases the long-term value of biodiversity records.
- Partnerships between local communities, schools, conservation organisations, and specialists strengthen monitoring programmes.
- Sharing results with participants helps build ownership, interest, and ongoing support for conservation.
- Monitoring programmes should remain flexible and adapt to local conditions, weather, access, and available expertise.
- Even simple observations can contribute valuable information for conservation and environmental management.
- Youth activities should be structured in a way that allows young people to take the lead and have genuine ownership over decision-making and programme development.
- Providing regular and supportive meeting spaces can help create consistency, build trust, and encourage ongoing participation among young people.
- Activities should create opportunities for leadership development and practical skill-building that can support both personal growth and future employment.
- Integrating well-being and environmental awareness into youth activities can help foster resilience, confidence, and a stronger connection to local environmental issues for a lifetime, regardless of whether their future interests change.
- Youth programmes can also benefit from including educational opportunities and career exposure to broaden participants' aspirations and understanding of future pathways.
- Creative and hands-on activities are important to maintain engagement, encourage self-expression, and support different learning styles.
- Strong partnerships between organisations, communities, and support networks can improve access to resources, opportunities, and wider participation.
- For youth initiatives to be sustainable and impactful, they should be integrated into long-term core work and priorities of organisations rather than treated as short-term projects.
- Providing young people and students with meaningful opportunities to have their voices heard is an important part of effective youth engagement. Initiatives such as the call to action and the panel discussion on environmental health and well-being created spaces where students could share their perspectives, contribute ideas, and participate in conversations, alongside local experts and specialists about issues affecting their communities and futures.

► Important considerations for youth activities

- It is important to listen to young people and respond to the gaps, needs, and priorities they identify within their communities and experiences.

6. Weblinks and resources

6.1

Pocket guide

A pocket guide to the project allowed the sharing of key information in a simple, accessible, and practical format that people can easily use in everyday settings.



Distributing them at the 2026 MNT's Annual General Meeting (AGM) ensured they reached an engaged local audience, helping to raise awareness, encourage uptake of the Toolkit, and support ongoing community involvement. Providing printed copies was particularly important to ensure inclusivity and accessibility beyond digital platforms, supporting wider and longer-term use across the island. The pocket guide is also available on the project website.

6.2

List of resources

All resources are found on the following website:

<https://www.ukotcf.org.uk/key-projects/biodiversity-and-well-being-Toolkit>

<https://montserratnationaltrust.ms/projects-2/biodiversity-well-being-Toolkit>

Other useful resources:

<https://www.montserrat-biodiversity-information-portal.org>

<https://www.ukotcf.org.uk/key-projects/biodiversity-and-well-being-Toolkit/dplus192-natural-history-collections>

<https://sdgs.un.org>

<https://www.ceh.ac.uk/our-science/projects/blue-iguanas-blue-vervain>

www.inaturalist.org

<https://fitcount.ceh.ac.uk>

6.3

Some key scientific publications

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Young, R. P. (Ed.). (2008). *A biodiversity assessment of the Centre Hills, Montserrat* (Durrell Conservation Monograph No. 1). Jersey, Channel Islands: Durrell Wildlife Conservation Trust. <https://www.montana.edu/extension/mvmnh/documents/young%20et.%20al.pdf>

7. Acknowledgments

Every project starts from a conversation, a thought, an idea. They come to life when dedicated people work together for a common goal. The goal here was to provide information which was useful to the Montserratian community in order to sustainably manage the island for people and for the planet.

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Antillean crested hummingbird
Orthorhyncus cristatus

8. Final thoughts

A message from the Project Team

The Toolkit brings together practical tools, local knowledge, and community-driven approaches to support the protection and sustainable management of Montserrat's unique biodiversity.

By combining scientific monitoring methods, such as digital recording apps and data portals, with traditional knowledge, cultural connections, and well-being practices, it reflects a holistic approach that is both locally relevant and forward-looking.

The inclusion of trial sites, education resources, and youth-led initiatives ensures that the Toolkit is not only informative but actively used and adaptable across different sectors. It strengthens the capacity of the MNT and wider stakeholders to make informed decisions, engage communities, and embed biodiversity into everyday spaces.

In doing so, it directly supports Montserrat's environmental priorities under the Conservation and Environmental Management Act 2014, while also contributing to global commitments such as the SDGs and the Convention on Biological Diversity's GBF targets.

Overall, the Toolkit provides a lasting foundation for continued collaboration, resilience, and stewardship across the island.

A Message from Chief Planning Officer

The Physical Planning Unit is part of the Ministry of Agriculture, Lands, Housing, Environment, Youth Affairs and Sport. Our role is to plan, guide, facilitate and regulate the orderly development of land and buildings in Montserrat.

We have been encouraged by the approach being taken to provide a template by which developers [and citizens] can follow, fitting the local context and taking into account the resources available. We welcomed the opportunity to foster greater relationships with the Montserrat National Trust and our unit. This helped generate a greater understanding of both our remits and ensured they are aligned in how we interpret sustainable development across the island for the benefit of our people.

We will promote the Toolkit's uptake through the planning process and continue its legacy beyond the project end.

Clement Meade
2026

Biodiversity and Well- being Toolkit for Montserrat

This document brings together the outcomes, resources, and lessons learned from the Biodiversity and Well-being Toolkit Project on Montserrat.

Developed through community engagement, partnerships, education activities, and biodiversity monitoring, the Toolkit explores the connections between nature, culture, and well-being while providing practical guidance for supporting biodiversity across the island. Alongside management options and monitoring tools, the document highlights traditional knowledge, youth engagement, botanical collections, and local case studies, creating a resource designed to support conservation, learning, and sustainable development in Montserrat and beyond.

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