

# Saving Our Special Nature of Montserrat

## Newsletter 18, March 2025

### Foreword



Male Montserrat oriole, Montserrat's national bird on red heliconia, Montserrat's national plant. Photo: Dr Mike Pienkowski

Welcome to the 18th issue of the newsletter about the current joint programme of work coordinated by Montserrat National Trust and UK Overseas Territories Conservation Forum, in conjunction with the Government of Montserrat and others. The Darwin Plus funding (DPLUS155) for *Adopt a Home for Wildlife* has ended but we hope and plan that the project continues under the leadership of the *Adopters of Wildlife Homes* supported as far as possible by Montserrat National Trust and UKOTCF. The continuing Darwin-funded project DPLUS192, *Delivering biodiversity and human well-being gains for Montserrat's sustainable development* (or *Biodiversity Toolkit*) now has about a year of funding remaining. Previous articles on this project appeared in *Newsletters 11-17* (November 2021 to late 2024).

Most of this issue is devoted to a series of articles from a multi-disciplinary team organised by UKOTCF to work with colleagues in Montserrat in February 2025 as part of the DPLUS192-supported project. Included also is some environmental education work in late 2024 as part of that project, and work in summer 2024 organised as part of DPLUS155 and DPLUS192.

We are very grateful for the many kind and encouraging comments from people welcoming *Newsletters* so far. We hope that you enjoy this extra large one too. Comments are always welcome.

Please feel free to show or forward these newsletters to others. If anyone sees these and would like to be added to the circulation list, please send your email address to [m@pienkowski.org](mailto:m@pienkowski.org). Earlier issues can be accessed at: <https://www.ukotcf.org.uk/newsletters/>. For more information on the project, the main contacts are:

Dr Jodey Peyton, Mrs Catherine Wensink, & Dr Mike Pienkowski of UK Overseas Territories Conservation Forum: [jpeyton@ukotcf.org](mailto:jpeyton@ukotcf.org) [m@pienkowski.org](mailto:m@pienkowski.org) [cwensink@ukotcf.org](mailto:cwensink@ukotcf.org). See also [www.ukotcf.org.uk](http://www.ukotcf.org.uk). Mrs Sarita Francis, Montserrat National Trust: [mnt@montserratnationaltrust.ms](mailto:mnt@montserratnationaltrust.ms). See also <https://montserratnationaltrust.ms/>



As part of the continuing project *Delivering biodiversity and human well-being gains for Montserrat's sustainable development* (or *Biodiversity Toolkit*), partly funded by Darwin Plus grant DPLUS192, biology illustrator Lizzie Harper joined a multi-disciplinary team organised by UKOTCF to work with colleagues in Montserrat (see pages 1-22). Lizzie gave some training in wildlife illustration (see pages 7-9 & 11-15). Above are two beetles painted by Montserrat Secondary School students: brown deer beetle (left) and rounded body green-blue beetle. To the right are two more beetles by members of Monty's Messengers, MNT's group for primary-school-age children.

# Welcome to Monty's Ambassadors

The Adopt a Home for Wildlife project (supported by Darwin Plus grant DPLUS155) was very pleased to be able to help Montserrat National Trust restart its **Monty's Messengers** programme for primary-school-age participants (named for the endemic Montserrat Oriole). This had had to be suspended around the start of the volcanic emergency in 1997. Some of the senior students helping as volunteers to help **Monty's Messengers** expressed regret that this programme had not been available to them when they were that age. One cannot turn the clock back but, linked to the project Delivering biodiversity and human well-being gains for Montserrat's sustainable development (or Biodiversity Toolkit), supported by DPLUS192, we are delighted to have helped MNT establish **Monty's Ambassadors** for more senior students.

Below officers of Monty's Ambassadors, introduce themselves in interviews conducted by Ms Siobhan Tuitt, Youth Representative on the Montserrat National Trust's board. The officers are Kyle Hogan (President), Naren Bobb (Vice-President), Narissa Farrell Bramble (Secretary), Juanique Roach (Treasurer) and D'Jhari Daly (Public Relations Officer)

## Kyle Hogan



Greetings! My name is Kyle Hogan, and I am the President of Monty's Ambassadors. I am a lover of nature and an avid hiker, so it was only fair that I joined the club. I spend a lot of my leisure time hiking and exploring Montserrat and now that Monty's Ambassadors has started, I get to explore my island with my peers.

I have observed that youths on Montserrat are not keen on the environment and Montserrat's true beauty is being appreciated by visitors more than its residents. Being the President, I am always trying to find new ways for the group to go on excursions and learn more about our country.

Montserrat's biodiversity is truly unique and my favourite part about Monty's is that we get the opportunity to explore the island together. My aspiration is to discover new species and have the group's name attached to it.

During my Presidency, I hope to connect youths on Montserrat with the Montserrat National Trust and to work along with the Youth Coordinator to partner with other youth groups in the region and hopefully, travel to other Caribbean countries and build an environment network. And with the passion and drive that we share as a youth group, this will definitely happen in the not-so-distant future.

## Naren Bobb

I am 18-year-old Naren Bobb, Vice President of Monty's Ambassadors. I am a student at Montserrat Community College pursuing my passion for Physics and Geography aspiring to be a Pilot or Air-Traffic Controller.

I joined Monty's Ambassadors with the goal of contributing to my community and exploring Montserrat while also developing life skills for my personal growth as a young man. Being elected as Vice President, I am now able to plan events such as hikes and bio-blitzes for other youths to truly appreciate the

natural beauty of the Emerald Isle. Additionally, I aspire to spearhead community projects such as clean-ups, volunteering and educational initiatives that raise awareness about Montserrat.

During my time as Vice President, I would love for the members to appreciate their natural environment more and spend less time on social media. This will be achieved through more outdoor programmes and activities.



To date, the Ambassadors have been on hikes, beach-cleanups and a games-night, all of which strengthened our bonds. I especially enjoyed the games-night as I am a very competitive individual and always aim to win while having fun.

I am thankful to the Montserrat National Trust for forming such an impactful and important group. Youths on Montserrat are not appreciative of their environment and are not knowledgeable about the work of the Trust. Through Monty's and the Trust, we not only have an opportunity to learn about Montserrat, but we also network with like-minded youths across the world.

## Narissa Farrell Bramble

I am 17 years old and a passionate aspiring pharmacist, currently employed within the Ministry of Health and Social Services. I am also an active sportswoman and also a member of several other community groups. I am also an Advocate for UNICEF.

I am the Secretary within the Monty's Ambassadors and take my position very seriously. As the secretary, I am in charge of taking the minutes at every meeting, emailing the minutes to persons, keeping track of the membership of Monty's Ambassadors, email reminders about meetings to the executive and to help plan activities for the group.

While being the Secretary of Monty’s Ambassadors, I would like to achieve a few things, to include; helping persons to make a difference within the environment and to learn about it, while also being an advocate for UNICEF, I also want to teach persons within the group about how climate change and mental health go hand in hand. I also want to build the community of Montserrat into being more involved in the environment and their culture – and to keep our Montserrat culture alive within the youth so that we can keep our culture alive.

Being apart of Monty’s Ambassadors can shape your future for the better and I say this with experience to the statement. After joining the Monty’s Ambassadors, as a shy young woman, I started to become more vocal and confident. I also got to learn more about the environment around me which is important as a young person. Also being a Monty’s Ambassador can allow you to meet new persons and join more groups, as it has done for me as I got the opportunity to be an Advocate for UNICEF, which I have been very involved in since I joined.

### **Juanique Roach**

My name is Juanique Roach, and I am 16 years old. I am currently a fifth-form student at the Montserrat Secondary School, where I strive to excel academically while also participating in extracurricular activities that align with my interests and passions.

In my free time, I love expressing myself through dance as a member of the Matrix Dancers, where I get the opportunity to showcase creativity, discipline and teamwork. Additionally, I have a deep appreciation for nature and adventure, which is why I enjoy hiking with Monty’s Ambassadors. Being a part of this organisation has allowed me to explore Montserrat’s natural beauty while also learning about the importance of environmental conservation.

I am honoured to serve as the treasurer of Monty’s Ambassadors, a role that has helped me develop leadership, responsibility, and financial management skills. Through this experience, I have gained a greater appreciation for teamwork and community involvement.

Looking ahead, I hope that my time with Monty’s Ambassadors will continue to teach me valuable lessons about environmental sustainability, conservation, and the importance of protecting the world around us. I aspire to become more knowledgeable and proactive in caring for the environment, ensuring that I can contribute positively to my community and inspire others to do the same.

### **D’Jhari Daly**

My name is D’Jhari Daly, a 17-year-old recent graduate of the Montserrat Secondary School. I am currently employed as a Lab Assistant at the Ministry of BUILT and serve as the Public Relations Officer of the Monty’s Ambassadors.

After joining Monty’s in early July 2024, I took on the role of Public Relations Officer, becoming one of the group’s ambassadors. In this position, I am responsible for designing event posters, capturing key moments through photography, and managing our social-media platforms.

As I carry out my role as Public Relations Officer, my goal is to enhance our social-media presence and make a meaningful impact on the members of Monty’s. I firmly believe that this organisation has the potential to foster personal growth and influence positively everyone involved. Through collaborations with groups worldwide, we can build valuable connections that may prove beneficial in the future. A great example of this is our partnership with the Indian Mountain School, where we successfully organized a cleanup of the Pipers Lot Hiking Trail. This initiative not only allowed us to exchange knowledge but also created lasting memories and strengthened our bonds.

In joining Monty’s Ambassadors, I have been fortunate to take on a leadership role that allows me to contribute meaningfully while growing both personally and professionally. The experiences I have gained – from managing our public relations to fostering global collaborations – have reinforced my belief in the power of teamwork and community engagement. I look forward to continuing this journey, further strengthening our impact, and creating even more opportunities for growth and connection.



# Building environmental education links between UKOTs & Crown Dependencies

As part of project Delivering biodiversity and human well-being gains for Montserrat's sustainable development (or Biodiversity Toolkit) (supported by grant DPLUS192) and building on from Adopt a Home for Wildlife (previously supported by grant DPLUS155), the Manx Wildlife Trust's **Beth Penhallurick** reports here on her visit to Montserrat in late 2024 and the collaborative environmental education efforts of Montserrat and the Isle of Man during November 2024 to support the delivery of Darwin Plus Project 192.

## Introduction

My name is Beth Penhallurick, and I am the Education Officer at Manx Wildlife Trust (MWT), the Isle of Man's largest wildlife conservation charity. Hosted by the Montserrat National Trust (MNT) – a leading organization dedicated to conserving Montserrat's natural environment and cultural heritage – I worked closely with the Ministry of Education and Youth Affairs and the Ministry of Agriculture, Lands, Housing, and Environment (MALHE). Together, we enhanced existing environmental education programmes and explored new opportunities for cross-territory collaboration.

## School Twinning Programme

A highlight of my visit was the launch of a school twinning initiative between Ballakermeen High School in the Isle of Man and Montserrat Secondary School. The programme aims to foster connections between young people in UKOTs and Crown Dependencies, encouraging the exchange of cultural and environmental knowledge. By sharing their experiences and discoveries, students can develop a deeper appreciation of their heritage and broaden their understanding of environmental opportunities.

The twinning programme is structured around a UN Award for Biodiversity, known as the YUNGA Biodiversity Challenge Badge, which offers participants an internationally recognised accreditation. During my visit to Montserrat Secondary School, I collaborated with MNT Conservation Officer Chris Sealys and Youth Coordinator Sandrae Thomas to introduce students to the programme and complete their first YUNGA biodiversity activity. This activity involved a bioblitz of the school grounds, during which students catalogued species in an iNaturalist folder. The folder serves as a shared digital resource which students from both Montserrat and the Isle of Man can view and to which they can contribute, fostering a collaborative learning environment.

Later, students visited MNT for a video call with their counterparts in the Isle of Man. During the session, Montserranian students shared their bioblitz findings and discussed their island's unique wildlife, while learning about Manx biodiversity. These interactive calls are scheduled monthly, with students



*iNaturalist Twinning Project page*

working towards completing the YUNGA award by the end of the 2024/25 academic year. This will allow for a programme review in summer 2025 and the consideration of future training opportunities.

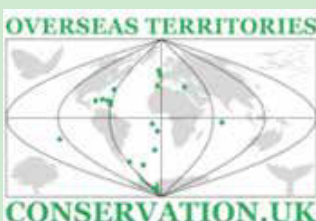
## Engagement with Local Schools

During my visit, I delivered a series of engaging educational sessions at all three primary schools and Montserrat Community College, emphasising the importance of integrating environmental education into the curriculum.

After a productive meeting with MALHE, the MNT team and I developed a lesson on food-chains, focusing on local biodiversity through creative activities. Tried at Brades Primary School, the lesson was designed to be easily adapted for various age-groups. Highlighting Montserrat's unique biodiversity ensures that the



*Montserrat Secondary School students at Montserrat National Trust, with MNT Director Mrs Sarita Francis OBE, for a video call with Manx students*



**Manx**  
Wildlife Trust  
Treisht Bea-Feie  
Vannin



*Activities at primary schools (from left): Food Chain Lesson at Brades Primary School; Assembly at Lookout Primary School; Wildlife Activity at St Augustine's Primary School*

next generation grows up with a strong appreciation for its value and the need for its conservation.

Assemblies were delivered also at St Augustine Primary School and Look Out Primary School. These assemblies focused on highlighting the key species of Montserrat and the Isle of Man. Students were asked to vote if they thought each species is found in Montserrat, the Isle of Man or both and this brought up interesting conversations of migration, non-native invasive species, and endemic species. It also made the students aware of the wildlife across over UKOTs and Crown Dependencies as well as the projects in place to conserve it.

My visit to Montserrat Community College included a meeting with the executive team to discuss the forthcoming Higher Education Evening and its focus on career pathways in the environmental sector. Thanks to Chris Sealys' expertise, students also planted native fruit trees on campus, initiating discussions on how to make the college grounds more wildlife-friendly.



*Tree Planting at Montserrat Community College*

### Supporting Youth Initiatives

In addition to working with schools, I collaborated also with MNT's youth programmes: Monty's Messengers (ages 4-12) and Monty's Ambassadors (ages 13-25).

For Monty's Messengers, Chris Sealys and I led a tour at the MNT gardens, focussing on medicinal plant identification. Children created teabags using dried native plants, leaving with both tea and an identification booklet to continue their learning at home. This group is vital in igniting the interest of young

conservationists who now have the option to progress to the Monty's Ambassadors youth group once they reach their teens.

The Monty's Ambassadors group has an executive team made up of the young people themselves who are given the guidance and authority to make youth-led decisions for the group. During my visit, the newly formed Monty's Ambassadors group met at MNT for a social evening of games and food which was an opportunity for the executive team to gauge the interests and ambitions of their peers for future activities.

The MNT staff and I later met with the Executive team at the Montserrat Museum to have their first official planning meeting. During the meeting the execs were asked to consider first the aims of the group to ensure the young people's goals, and the conservation focus of MNT were aligned. They were then asked to consider what events they could feasibly run to achieve these aims. The mind-maps you can see on the next page are a clear example of the high capability of young people when they are given the space and respect needed to express their ideas.

Youth Coordinator Sandrae Thomas and I also accompanied the young executive team on ZJB Montserrat Radio to share the group's aims with the island community in the hope of raising awareness and recruiting fellow young people.



### Conservation Careers

During my trip I participated in two major events hosted by the Montserrat National Trust.

*Left: Monty's Messenger holding his teabag made from native medicinal plants; below: the Monty's Messengers group holding their homemade teabags at MNT*





Group photo of the young people present at MNT's Higher Education Evening

represented including tourism, agriculture, and conservation to highlight the need for cross-sector collaboration to conserve our environment.

The event was a success with over 30 young people and many significant Montserratian organisations in attendance. A big thank you to Sandrae Thomas and the entire MNT team for their outstanding effort in organising such an inspiring and informative event for the young people of Montserrat.

### Building Relationships with the Montserrat Community

Beyond schools and youth initiatives, I engaged also with the wider Montserrat community through two appearances on local radio. The first was a live conversation with local icon Basil Chambers at ZJB Radio to share about the collaborative initiatives between the Isle of Man and Montserrat through UKOTCF and the second being a recorded programme with the Monty's Ambassadors Executive team to promote young people in conservation.

My itinerary included also a visit to the Disaster Management Coordination Agency (DMCA) and the Montserrat Volcano Observatory (MVO) to find out what qualifications and skills young Montserratians will need to secure jobs at these vital organizations and ensure their longevity. I was accompanied by MNT Youth Coordinator Sandrae Thomas who will seek to use this information to inform the training available to the young people of Monty's Ambassadors.

### Looking Ahead: Strengthening Environmental Education Links

Visiting Montserrat was an invaluable opportunity to share knowledge, strengthen environmental education efforts, and build lasting connections between the Isle of Man and Montserrat. My thanks must go to the incredible UKOTCF and the MNT team for kindly supporting the trip and valuing inter-island collaboration.

Looking ahead, the call for young voices within the environmental sphere is evident. Therefore, establishing and connecting youth-led initiatives across all UKOTs and Crown Dependencies could create a vital network, empowering the next generation to build on current efforts and drive conservation into mainstream policy, action, and education



Mind maps of ideas from the Monty's Ambassador Executive Meeting

On 14 November 2024, I joined local experts as a panelist for the “A Call to Action: Youth and the Future of Conservation of Montserrat’s Environment and Cultural Heritage” discussion, exploring how young people can shape the future of Montserrat’s conservation efforts. My responses aimed to highlight the importance of international collaboration and the role of the mainstream education system in inspiring environmental action from a young age.

On 21 November 2024, I delivered a keynote address to local students at MNT’s Higher Education Evening, highlighting the wide range of careers available in the environmental sector and a variety of paths the young people could take to build such a career. Following the talk, young people were encouraged to walk around and engage with the stalls set up by many of the key Montserratian organizations. Numerous sectors were



Panel at the “A Call to Action: Youth and the Future of Conservation of Montserrat’s Environment and Cultural Heritage” discussion

## New light shed on Montserrat's tarantulas after more than 120 years

In yet another publication from the research group of British arachnologist Danniella Sherwood, Montserrat's tarantula – previously thought to be a single species – is revised, with description of one new species. This was part of a wider study Sherwood and colleagues made of the genus *Cyrtopholis* on the islands of the Caribbean. The well-known *Cyrtopholis femoralis* is redescribed based on the holotype, thought to have been lost for many decades but rediscovered by Danni during her museum work. The new species *C. montserrat* is named in honour of the island and the conservationists who protect its wildlife, it is nearly twice as large as the previously known species and may have been rendered extinct by the volcanic eruption. Sherwood emphasises that fieldwork is needed, when safe and possible, to ascertain if it is extant.

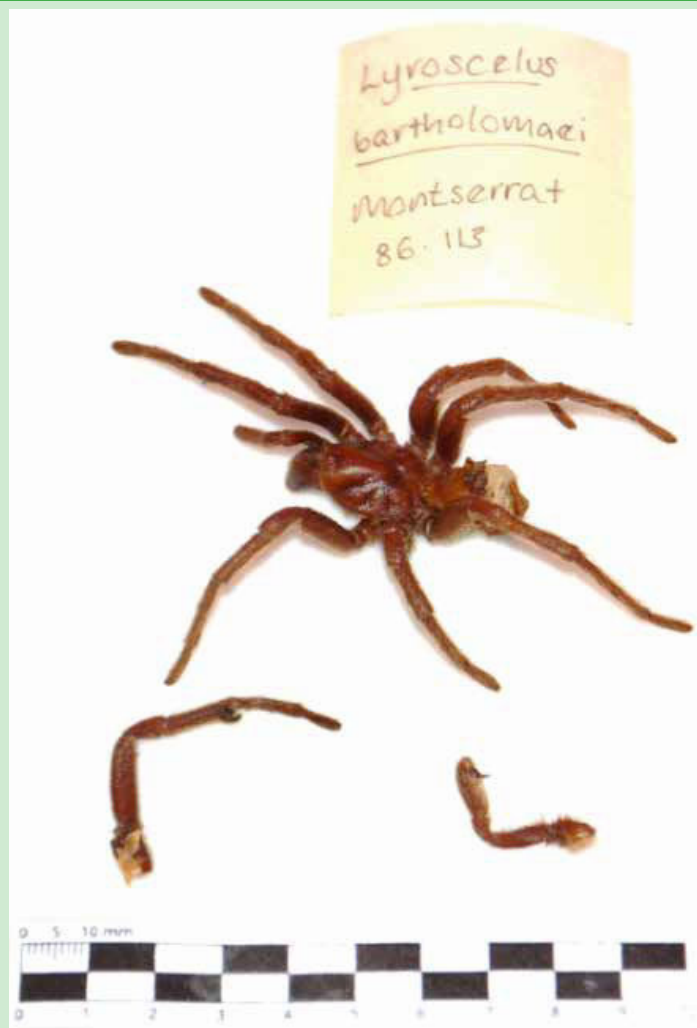
### Full citation:

Sherwood, D., Gabriel, R., Questel, K., Rollard, C. & Leguin, E.-A. (2024) A new species of *Cyrtopholis* Simon, 1892 from Montserrat with notes on some other Caribbean theraphosines (Araneae: Theraphosidae). *Arachnology* 19(9): 1298-1307.

### Link to open access article:

[https://www.researchgate.net/publication/385421048\\_A\\_new\\_species\\_of\\_Cyrtopholis\\_Simon\\_1892\\_from\\_Montserrat\\_with\\_notes\\_on\\_some\\_other\\_Caribbean\\_theraphosines\\_Araneae\\_Theraphosidae](https://www.researchgate.net/publication/385421048_A_new_species_of_Cyrtopholis_Simon_1892_from_Montserrat_with_notes_on_some_other_Caribbean_theraphosines_Araneae_Theraphosidae)

*Cyrtopholis montserrat* Sherwood et al. 2024.  
Photo: Danniella Sherwood



## Art and nature provide wellness to the community on Montserrat

Well-being, art, and nature are deeply interconnected, each providing ways in which to enrich our lives. Nature, with its calming beauty and life-sustaining qualities, offers a space for reflection and restoration. The vibrant colours of a sunset, the sound of ocean waves, or the quiet of the forest all have a power to reduce stress and promote inner peace. Nature encourages mindfulness and presence, reminding us to slow down and appreciate the world around us. During interviews with young people on island as part of the DarwinPlus 192 project *Developing a biodiversity and well-being Toolkit on Montserrat*, these sentiments were echoed. One of the Monty's Messengers said at the end of the session: "I learned about Montserrat Biodiversity". Some of the plants they discovered, in their words, were: Hibiscus, Heliconia, Periwinkle, Joseph Coat, Sugar Cane, Rose Cactus, and Moringa.

At the end of the session, Mr Chris Sealys, from MNT, encouraged the children to keep on trying as they had produced lots of lovely artwork inspired by nature. He said: "It was wonderful to have you all here today. I hope you continue to learn and encourage other persons who are not part of Monty's Messengers to come and learn because we learn a lot of beautiful things."

Art, in its many forms, acts as a bridge between our inner world and the external environment. Whether through painting, music,

dance, or literature, art allows us to express emotions, make sense of experiences, and communicate our feelings. It offers a creative outlet and can foster connection and empathy.

When we combine nature and art, the impact on our well-being can be profound. Nature has been the inspiration for many artists, inspiring works that capture snap-shots of our natural world. In turn, experiencing art inspired by nature can deepen our appreciation for the beauty of the environment. Furthermore, engaging with nature through artistic expression, such as painting or writing, can enhance our connection to the world around us, giving us a sense of peace and purpose.

Together, these elements create a cycle that fosters balance and well-being. The DPLUS192 expanded work done previously (see *Hidden Histories* in earlier issues of *SOSNoM*). Artist, Lizzie Harper was invited to Montserrat to work with the community connecting nature to art. Her programme was full and involved many activities, including meetings with the Art Council and Education Department as well as several teaching sessions with Monty's Messengers, Monty's Ambassadors and the Montserrat Secondary School.

Lizzie Harper is a free-lance natural history and botanical illustrator with a keen love of nature. Her scientific training as a zoologist helps complement her illustrations. She works in



*Mr Chris Sealys (left) presents Montserrat Arts Council's Mr Kenneth Silcott with the second version of the medicinal plant booklet, like the first including illustrations by Lizzie Harper. Lizzie discussed ideas for incorporating the work of the Trust to art with Mr Silcott during the meeting and the programme for the week ahead.*

watercolour, pencil and pen. With over 25 years experience as a free-lance illustrator, she has a broad range of clients. She is particularly passionate about passing on knowledge to others and regularly teaches classes from all abilities and backgrounds. She worked with UKOTCF and MNT during the *Hidden Histories* project (<https://www.ukotcf.org.uk/blue-iguanas-to-blue-vervain/>) where she first illustrated 15 medicinal plants of Montserrat published via the Field Studies Council. This has expanded during the DPLUS192 *biodiversity and wellbeing toolkit* project to include 15 more medicinal plants.

Nature can nurture our mind and body, art helps us process and express, and both work in tandem to restore and elevate our sense of self.

Through the project more ways to promote mindfulness and creativity are being explored.

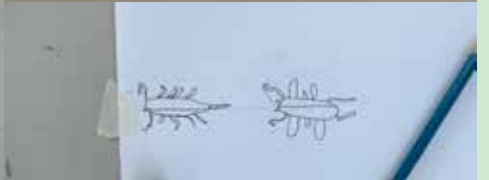
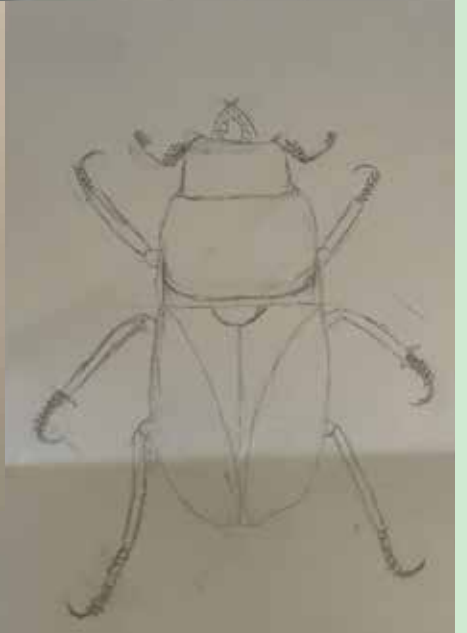
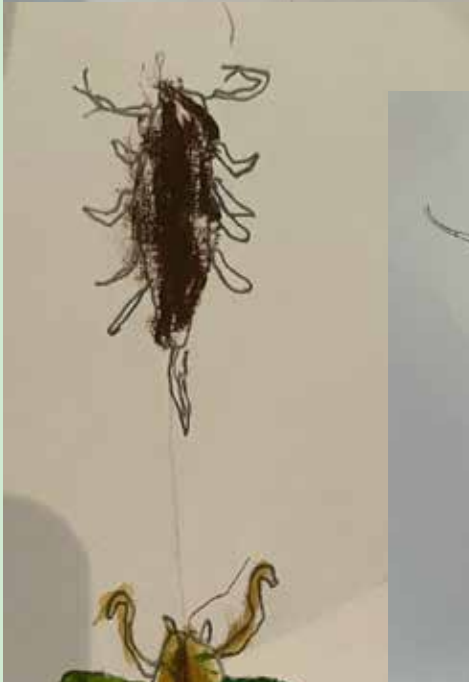
Lizzie said: "Working on the beautiful island of Montserrat has been a joy and a privilege. All the staff I met were dedicated, kind, generous and incredibly hard working. The children who drew insects and flowers at my workshops excelled in both skill and concentration, and produced some really lovely work. The adults were equally engaged and I was very pleased with the watercolours they produced. I loved being part of a vibrant team,



all of whom are fiercely committed to preserving biodiversity and to Montserrat. The island is a jewel, rich in plant and animal life, and brimming with culture and a background respect and knowledge of the natural world around them. Free time was spent learning, exploring, and being inspired. Personally and professionally this week has been one of the highlights of my career as an illustrator. Many thanks for the opportunity to be part of such a great project."

On this and the next page are images of the workshops and some of the products from the workshops.





## Environmental education resources for Montserrat

As part of DPLUS192 online educational resources are being developed, **Dr Rebecca Machin** recounts her work with MNT and young persons during a recent trip to Montserrat with the team.

For the last fortnight, I have been in Montserrat with colleagues from the UK Overseas Territories Conservation Forum and Meise Botanic Garden, working with the Montserrat National Trust. Along with other partners in Montserrat and overseas, we have been working on a Darwin Plus part-funded project (DPLUS192) on achieving sustainable development to benefit biodiversity and human wellbeing in Montserrat. My role in the project is to produce educational resources for young people and their teachers, linked to Montserrat's biodiversity, and the importance of nature for our wellbeing.

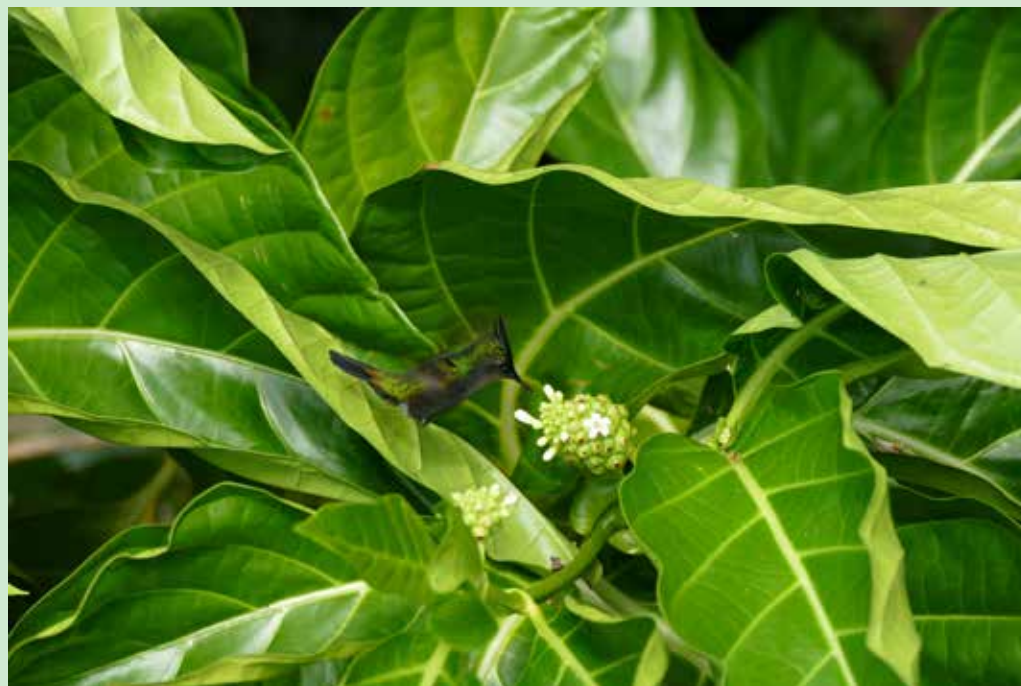
I have been developing online resources for young people, linked to biodiversity and wellbeing, as well as materials for teachers which help to link learning goals in science curricula with Montserratian examples and case studies. The online resources include photo galleries and information about Montserratian animals, plants and fungi, Montserrat's endemic species, and local examples of life cycles, pollination and seed dispersal. There are also downloadable activities for teachers and parents to help engage their children using content relevant to their own lives. Members



*The National Museum of Montserrat*

Also during my visit, I have been delighted to work with the National Museum of Montserrat's curator, Dr Samantha Lauren. We are hoping to transform the museum's outside space into a wellbeing garden, a living exhibition to share ideas on how to welcome nature into gardens and other outside spaces, and to improve wellbeing. The museum garden will provide a peaceful space for the increasing numbers of people working in the Little Bay area, as well as museum visitors. Working with staff from the Montserrat National Trust Botanical Gardens, the garden will be planted with native plants, those used for their medicinal properties, and trees for shaded seating areas. Microhabitats for different animals, and the plants, will welcome pollinators. We're very grateful to Chris Sealys, Conservation Officer at the Montserrat National Trust, for his guidance and support.

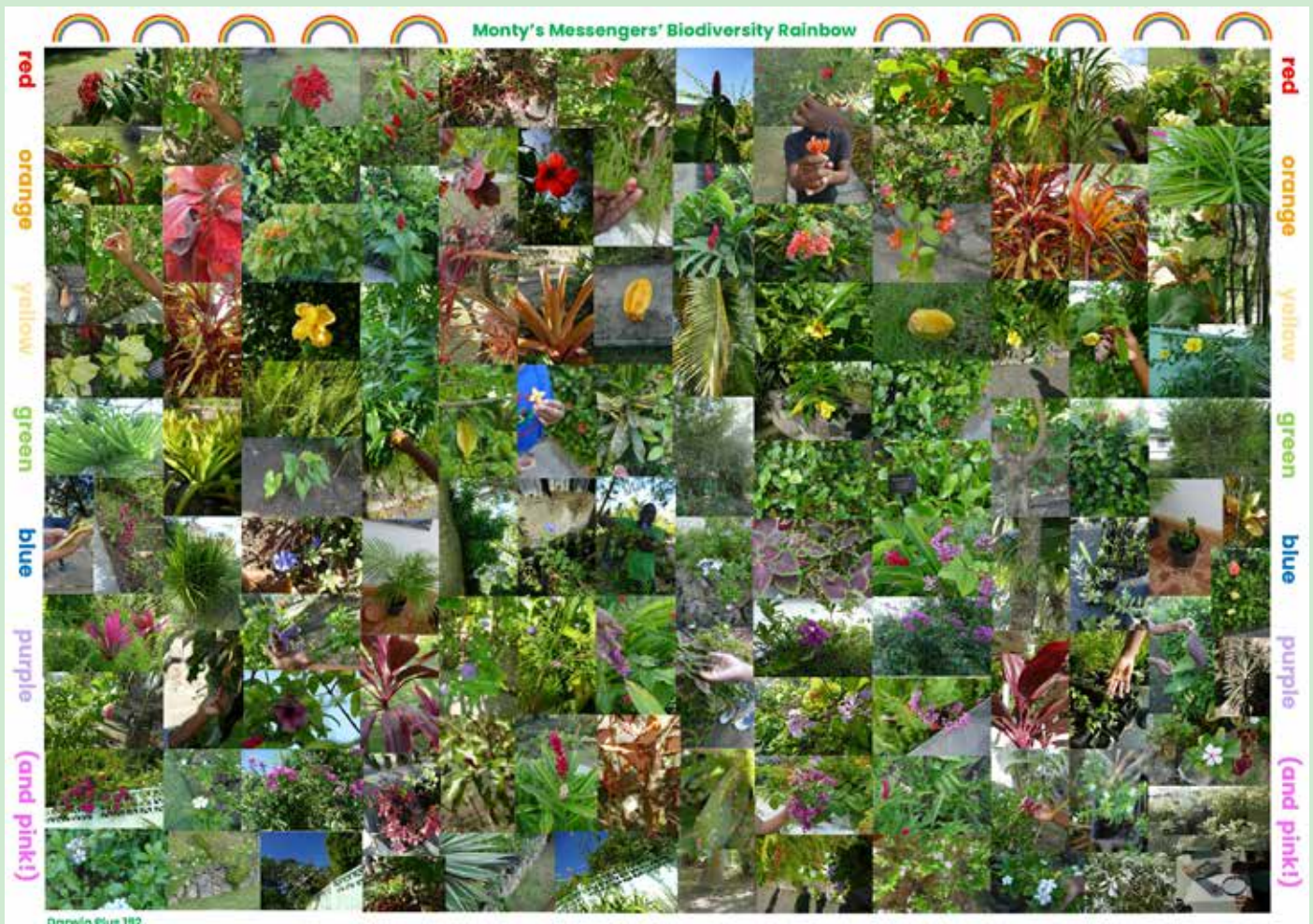
As with my previous visits to Montserrat, a highlight of this trip was working with Monty's Messengers, Montserrat National Trust's youth group for younger children. The session was based at the Botanical Gardens, and we were joined by Lizzie Harper, a botanical illustrator from the UK. Lizzie produced the beautiful illustrations of medicinal plants



*Antillean Crested Hummingbirds, Noni, and pollination feature in the online resources*

of the project team met with representatives of the Ministry of Education to discuss how to engage young people with nature, and make the school science curricula more relevant to students by using Montserratian content. The meeting provided valuable guidance on how to develop further online resources, such as lesson plans and presentations for teachers. We are very grateful to the Ministry's staff for sharing their time and expertise with us.

used in the booklets published in the *Hidden Histories* project, on sale in the shop. The children were split into two groups, and we switched between two activities. Lizzie guided the children in drawing and painting insects, using pencils, pens, and watercolours. The results were fantastic and the children were rightly proud of their work. I chatted with the children about what biodiversity is, and how important it is for our health and happiness. We then searched the Botanical Gardens for all the colours of the rainbow, linking to the strength of diversity,



*Our biodiversity rainbow*

and the beauty of nature. Lizzie and I were both impressed by the knowledge the Messengers had about the plants around them; they are a credit to Montserrat and provide hope for the future.

This is just a fraction of the activities I have been involved in during my visit, and I would like to thank everyone for their time and kindness. It is a privilege to visit such a special place, and to work with such fantastic people.

*Rebecca Machin*

*One of Monty's Messengers painting an insect*



## Montserrat - Working in Paradise

*As already noted, in February, **Lizzie Harper** was a member of a cross-disciplinary team brought together by UKOTCF to visit Montserrat in support of the project Delivering biodiversity and human well-being gains for Montserrat's sustainable development, led by Montserrat National Trust and UKOTCF and supported by grant DPLUS192. She writes several articles in this issue. This one gives some of the background and context.*

Montserrat is a beautiful, small island in the Caribbean. I was lucky enough to be invited to visit for a week, to teach botanical illustration, and had time to explore this island paradise at the same time.

### Arriving

You arrive in Montserrat airport via a little plane from Antigua, skimming low over the volcanic island. Catherine Wensink from the UK Overseas Territories Conservation Forum met me at the airport, with biologist and educator Rebecca Machin.

There was quite a team of us working on different aspects of Montserrat biodiversity; over the week I met ecologist Jodey Peyton, entomologist Wolfgang Rabitsch, and botanists Sofie Meeus and Quentin Groom. We all got to liaise with government ministers as well as the Montserrat National Trust.



*The plane to Montserrat*

### First impressions of Montserrat

Montserrat is vertiginous, a volcanic isle swathed in lush vegetation. Roads are steep. Mangoes drop their fruit to the ground where you can gather and eat them. Stalls sell coconuts, bananas and eggs. Wild agouti and incredibly well-fed feral chickens, goats and donkeys stray about. The sun is hot and the breezes warm. Short violent rain-showers, accompanied by wild winds, pass swiftly and happen mostly at night. Wild iguanas lie in the sun and Zenaida Doves waddle along the roadside. The Soufrière Hills, site of the volcano that erupted from 1997 to 2010, tower above the island. The recently active volcanic peak is mostly swaddled in cloud.



*The Soufrière Hills volcano*

The houses dot the hillside, painted pretty bright colours. They are interspersed with snack-bars and tiny cafes. People wave and honk their horns at each other in friendly salutation.



*View of Look-out village from Jack Boy Hill*

### Visiting Elvis Gerald's Garden

My first full day included a trip to a garden I was very keen to see. Having worked with Elvis Gerald on an idealised plan of his garden, it was a treat to see the spaces in real life, burgeoning with fruit, vegetables and flowers.



*Visiting Elvis Gerald's garden with Catherine Wensink, Jodey Peyton and Rebecca Machin*

### Montserrat National Trust: Monty's Messengers and Ambassadors

Much of the conservation work being done is supported by the Montserrat National Trust, a very active organisation headed by Sarita Francis.

As well as hosting my illustration workshops, they had a session on preserving herbarium specimens with Quentin and Sofie.

MNT holds scientific conferences and runs the Botanical Gardens, and is also very involved in promoting the importance of cherishing the biodiversity of the island – to visitors, residents, and especially to children.

Not only does it promote wildlife and nature on the island, but also has a gift-shop which sells, amongst other things, tea-towels and mugs featuring some of my *Medicinal Plants of Montserrat* illustrations. I was delighted to receive a mug featuring my botanical illustration and a tote-bag from Mrs Francis.

### Teaching at Montserrat National Trust

My contact is Chris Sealys, Conservation Officer at MNT. Chris engages with local kids and young adults through Monty's Messengers (for youngsters) and Monty's Ambassadors. Activities focus on teaching all aspects of natural history through fun activities, in the hope that prioritising the biodiversity of Montserrat will remain a life-long passion.

Monty's Messengers came and drew with me. I had brought resin-encapsulated insects to inspire them, but also offered them native flowers from the gardens. They did some terrific work, despite never having used watercolours before and some being really quite young.

Rebecca took them on a biodiversity rainbow hunt (see pages 9-10), and was amazed and how much they knew about the plants in the gardens and their local uses. Sadly, this is something we

seem to have lost a long time ago in the UK.

Monty's Ambassadors did some beautiful work too, really concentrating and working with flowers and the insects. They were so engaged, enthusiastic, and polite (see pages 2-3 & 7-10).

All I have to do as a teacher is provide encouragement and a few pointers if they get stuck. Seeing people enjoy drawing is such a thrill, their enthusiasm for combining art and the natural world gives me a lot of joy.

Working alongside Chris was great, he sees that you can embrace nature even if you're not academically strong, and understands how art should stand alongside exams and school-work as another way of getting youngsters involved in promoting and committing to Montserrat's natural world. He brought these ideas to the meetings we had with the Montserrat Government, and no doubt inspired both the arts council and education minister.

### Teaching at Montserrat National Trust: Adult session

On Sunday I got to teach adults for a longer session called Nature meets Artistry. We worked with the native and ornamental species from the botanical gardens and some of the roadside flowers I had picked.



Above: Nature meets Artistry session;

Below: Students' pencil and watercolour illustrations of *Plumbago* and the *Tridax* daisy



I never know what plants people will choose to draw, and not only did the beautiful *Plumbago auriculata* get chosen, but one student took on the overlooked native *Tridax* daisy *Tridax procumbens*.

As with the younger artists, my students applied themselves whole-heartedly and produced some lovely work. I really enjoy seeing people learn more about plants by drawing them, and this was no exception.

### Meeting the Arts Council and the Department of Education

I spend most of my life in my studio, illustrating plants and animals in splendid isolation. For me, working alongside the MNT and the scientists and UKOTCF was novel, and a treat. Spending time with people who care about the same things you do; and will tell you when fruit-bats are eating mangoes, or go up sheer rock-faces questing for unusual plants, or get over-excited about seeing a Tarantula hawk-wasp...it was refreshing and inspiring.

These were the people who I joined for meetings with Montserrat's Arts Council and Education department.



Logo of Montserrat's Art Council

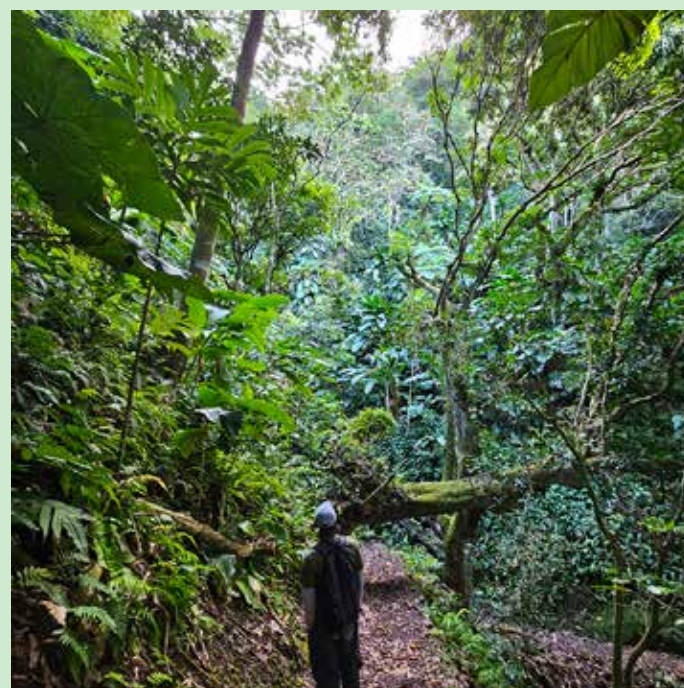
As well as not usually working in a team, I have very little experience of

official meetings. Although I felt a little intimidated, it was a wonderful opportunity to be able to share some of the benefits I feel come from drawing wildlife and plants.

Seeing Chris, Sarita, Catherine and Rebecca encouraging links between the government, education, arts council and Montserrat National Trust; and promoting the biodiversity of Montserrat was fascinating. I hope the meetings will bear fruit.

### Wildlife Walk

One of the fascinating things we did when I wasn't teaching was to join Loydie on a nature walk up the Dry Waterfall



Loydie explaining epiphytic plants and vines on Dry Waterfall trail

Trail. Loydie is one of the excellent and highly knowledgeable guides working with Scriber's Adventures. These trails are well maintained by the MNT; within moments you feel enveloped in the jungle but the route was easy to negotiate.

We learnt an enormous amount about the trees, ferns, birds, and insects all around us. We even saw the endemic Montserrat oriole amongst foliage, and saw wild heliconia in bloom.

### Tour of the Plymouth area

After visiting Montserrat Volcanic observatory, a state of the art monitoring site keeping an eye on the volcano, we joined the fabulous Norman Cassell of Namcas Tours for a visit to Montserrat's exclusion zone; this requires special permission.

After the volcano erupted in 1995, it continued to throw ash and pyroclastic flows across wide expanses of the island. Areas smothered included most of Montserrat's agricultural land, its main port, the capital city of Plymouth, and the airport.

Norman brought his friendly enthusiasm, an immense knowledge, and memories of growing up as well as living through the eruptions to our tour. It was a joy and a privilege to spend time with him, and also incredibly moving to be allowed to see some small part of what has been lost to volcanic activity. The resilience of the Montserratians as they continue to reconstruct their future is extraordinary.



*Half-buried, the Secondary school Norman attended, in Plymouth*

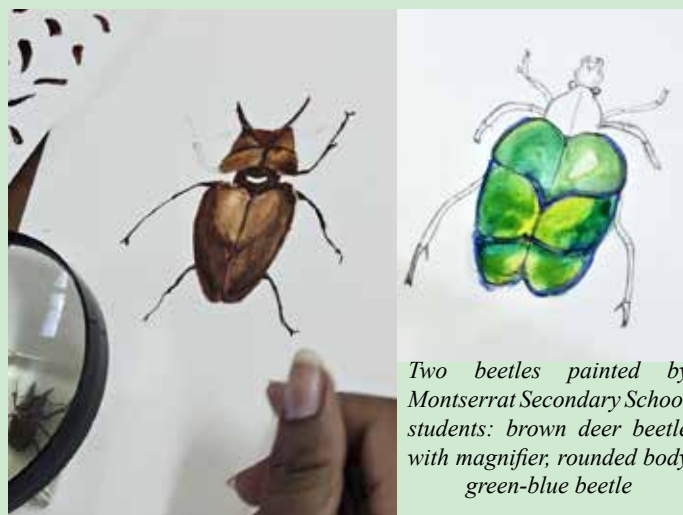
### Teaching at Montserrat Secondary School (MSS)

There is one secondary school on Montserrat, and I got to teach some of the art students for an hour. Thanks are due to the head of art, Mr. Kelvin 'Tabu' Duberry (a fine artist as well as a teacher), for allowing me to hijack his classroom.

Again, the students used pencil and watercolour and chose resin-



*Teaching at Montserrat Secondary School*



*Two beetles painted by Montserrat Secondary School students: brown deer beetle with magnifier, rounded body green-blue beetle*

encapsulated insects and plants as subjects. These teenagers are already very able, so seeing them tackling observational drawing and the new medium of watercolours was fascinating. They did some beautiful work, and managed to capture intricate details as well as some of the nuances of shine and iridescence on the elytra of the beetles.

Chatting to Mr Duberry was interesting too, the amount of excellent work he manages to produce with limited resources is quite remarkable. At the end of the session I was touched and very pleased to be presented with a beautiful linocut done by one of the art students.



*Talking with Kelvin Duberry and holding the lino-cut I had been given*

### Beaches and wildlife

There was plenty of free time to explore the island's beautiful volcanic beaches. Snorkelling revealed pristine coral-reefs, purple sea-fans, shoals of large pale blue fish, sea-turtles, saffron corals, angel-fish, tiny fish like glittering sapphires, long-spined sea-urchins, and spotted box-fish.

The sea was warm, the sun was hot, the breeze was cooling but tropical. And the sunsets were glorious.

Wild animals on the island seemed pretty tame; we saw hosts of birds, including the notoriously bold Pearly-eyed Thrasher *Margarops fuscatus* and American Kestrel *Falco sparverius*.

Above the ever-changing blues of the Caribbean sea we saw Brown Pelicans *Pelecanus occidentalis*, Royal Terns *Thalasseus maximus*, Tropicbirds *Phaethon aethereus* with their eerie cries, and Frigate-birds *Fregata magnificens*.

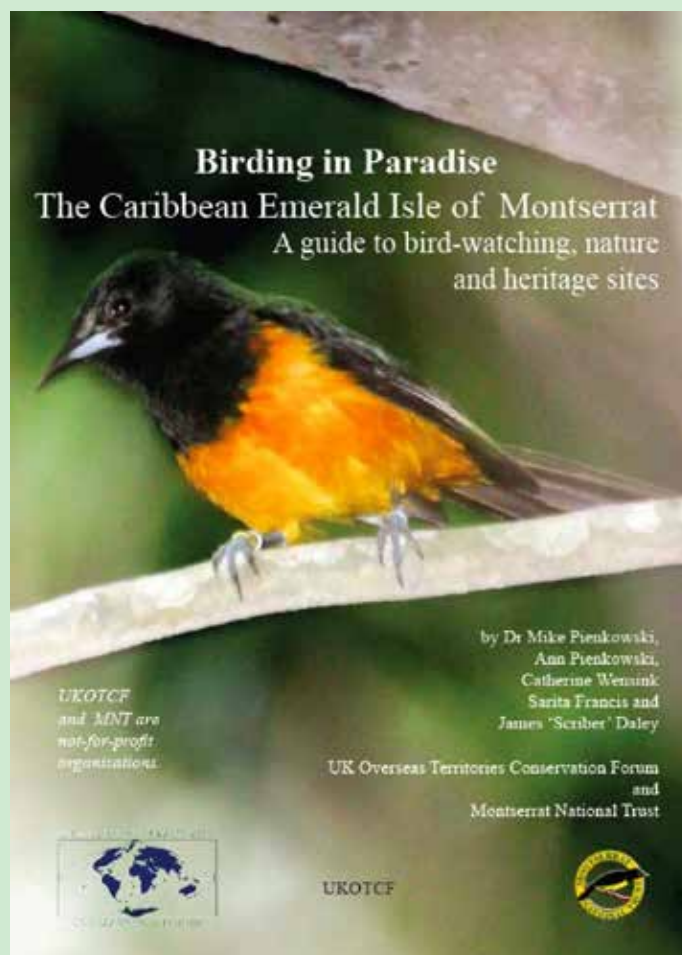
These were easy to identify thanks to a handy wildlife guide to Montserrat, co-written by some of the people I was working with during my trip. However, I am well aware that there are many many more birds to spot on Montserrat. No wonder the guide is titled, "Birding in Paradise"!

### Conclusion

This trip was one of the most wonderful weeks of my professional life. Everyone I met was committed and working incredibly hard to promote the biodiversity of Montserrat. They were friendly and fun, inspirational and enthusiastic. Montserrat itself is simply stunning, somehow retaining its sense of self and its friendliness as well as being abundantly generous to tourists. The plants are awe-inspiring, the volcano is beautiful and terrifying, the wildlife is accessible and jewel-like.

Will I be back? If I am useful enough to be invited back, I would commit to another week of teaching botanical illustration and nature drawing on Montserrat in a heart-beat. Birding in Paradise, yes. Illustrating in Paradise? I'd take that offer any day.

Birding in Paradise can be bought from MNT's gift-shop and, as printed or electronic versions at <https://www.ukotcf.org.uk/books-for-sale/>



## An interview with Chris Sealys on his visit to Belgium and London

*Chris Sealys recounts his trip to Belgium, highlighting herbarium work, exploration of the Meise Botanic Gardens in Belgium and the Royal Botanic Gardens, Kew. He recalls his discussions about potential training and practical herbarium/botanic-garden work. Chris met also colleagues of Quentin Groom and Sofie Meeus. During his trip, Chris took part in a team meeting, and learnt about mounting techniques at both gardens. Chris discusses the importance of networking, career building, and the establishment of the new National Herbarium on Montserrat. He mentions using technology for plant identification and the potential for DNA techniques for plant identifications. Here, he talks with Catherine Wensink (UKOTCF) about the trip funded by the DPLUS192 project.*

*Catherine:* How was your trip to Kew and to Belgium?

*Chris:* It was good. [In Belgium] we did a lot of herbarium work, went through data on the Global Biodiversity Information Facility (GBIF) and toured the facility. I saw the different habitats that they have, all throughout the Botanical Garden, and especially how they grow their herbs and rose garden. These were specific gardens that I wanted to see, and I was able to explore and to look through. We then visited the classroom where we saw the different climatic biomes throughout the world. Also, I looked at how they do labelling of the plants and other material throughout the garden; that was a key thing. Then we also spoke about more possible training, or another visit to come for a longer period where you could do some more hands-on work.

*Catherine:* I heard that Quentin Groom [from Meise] introduced you to [his colleagues including] his boss.

*Chris:* Yes, he was very happy to know that a lot of the work that Quentin [and colleagues] was undertaking and coming here [to Montserrat].

I met the general executive for a few minutes, and we spoke about his passion for botany and doing research field work [to study Spermaceae]. It was a great opportunity.

I met also with his team. Quentin is supervisor to a large team where they do quite a bit of work. I was able to sit at one of the meetings where they were looking at a lot of the documentary and data work they are doing.

When at Kew, it was nice to visit the area where we have the [endemic orchid] *Epidendrum montserratense* and 'pribby' [also an endemic species]. So I could see it hands-on and meet the persons who actually did the propagation from seeds. We did some training on how the potting mix for the orchids is made. I looked also at the herbarium especially some of the type-specimens including those from the Howard collection. And there was a room where they do mounting of specimens. I was very keen on seeing how Belgium does mounting and how Kew does the mounting.

*Catherine:* Ah. Was it different?

*Chris:* Yes, it's very different. So in Belgium they do the sewing and strips; Kew Garden does not do so – they just leave it in the paper, and glue it down. They said that they used to use the same pattern that Belgium does, but most of the damaged specimens [over time] are from this method.

*Catherine:* Yes. So you're doing a mix of approaches?

*Chris:* Eventually the glue from the strips comes off, which

means that the plant becomes loose and sometimes gets damaged. When you glue the specimen down everything is pressed down so that it stays in one place.

*Catherine:* And what about the sewing?

*Chris:* They sew only if they have a bigger end of the branch or stem, or branches of the plant that are really too big to be glued down. So they would add some sewing into it. And they also have a piece of tape that could be loaded on the other side, so it's properly sealed.

*Catherine:* Which method are you going to be using [on Montserrat]?

*Chris:* I will be using the Kew method because this is actually what I was doing, and now I've seen a range. So from the specimen that we have, this is how it used to be done before. You can see that the white strips used to hold the material down eventually become yellow and over time they deteriorate. I think most times, in our hot conditions, the Kew method works better.

*Catherine:* It's interesting, like you say, to compare both.

*Chris:* And with Kew Gardens also, I met with Thomas [Heller] part of the Centre Hills survey. We had lunch together and we spoke about looking at surveying, possibly with more interest in rare or endemic species. It was a bit rushed, but it was useful. We discussed the possibility of visiting for a longer period of time when I can come and have training.

*Catherine:* And I mean, it's Skills for Life, isn't it? You may be

working in Montserrat at the moment, but you can take those skills wherever you go?

*Chris:* Correct. Building a career, building a networking team, absolutely. It was nice to go back to the Garden at Kew especially because it is where I did some training and I got to revisit the rooms this was done. It was a very nostalgic experience.

*Catherine:* And so you had a good time?

*Chris:* Yes: very useful given that we've now established a new botanic garden on an island. Any skills can be applied to that. And the fact that there are so many persons who willing to help and resource, and you can reach out to them.

*Catherine:* You met with someone who likes lichens? Did you say that they could help ID stuff on iNaturalist and things like that?

*Chris:* Even DNA; if the plant does not have flowers, it's difficult to identify. Before we actually had to go several times to ensure that you get this plant in fruit or flower, because, as botanists, in order to identify plants, you need one of these components. But now, with technology, you could actually take a DNA sample from a leaf; Quentin took specimens.

*Catherine:* So they go into, like the global genome databases?

*Chris:* Yes, they do. They take it in silicone gel, so it retains that the DNA of the plant.

*Catherine:* Thanks Chris

## Update on Montserrat Herbarium

Meise Botanic Garden botanists Dr Quentin Groom and Dr Sofie Meeus re-visited Montserrat in February. They were able to source some additional funding to continue some collecting for the new Montserrat National Herbarium with MNT's Chris Sealys. This involved an exploration of the Silver Hills area, visit to the elfin forest on Katy Hill and, importantly they had a plan to make a start on looking at the permanent plots set up by the Government of Montserrat and Royal Botanical Gardens, Kew on the Blackwood Allen and Underwood trails.

Some of the work was not out in the field but to discuss various aspects of their work. They gave a presentation to the Premier and Minister of MATHLE where they outlined some of the support they were providing through DPLUS192. They also facilitated a technical workshop with DoE and GIS Unit on the development of a Global Biodiversity Information Facility hosted portal.

Also, a public event was held. This was keeping with the

theme of well-being and inclusiveness. The event encouraged all members of the community to partake in a session to mount some of the specimens during the trip. This was led by Dr Sofie Meeus.

Funds are being sought for additional items needed in the herbarium.

Further information:

<https://m.soundcloud.com/user-987002611/botanists-quentin-groom-and-sofie-meeus>

<https://www.zjbradio.com/news/2025/2/14/montserrat-national-trust-seeks-volunteers-to-help-preserve-local-plant-biodiversity>

*Images from botanists' visit: MAHLE and MNT staff lead the team from Belgium, UK and Austria through a track in the Silver Hills. This part of the island is the driest. It is an interesting habitat botanically and has many different species of invertebrates; not to mention the seabird colonies on the cliff edges. Some samples were taken for the herbarium as well as recorded on iNaturalist.*





# Medicinal plants of Montserrat - Illustrations vs Reality

Another article by **Lizzie Harper**, this one on the core part of her work.

As a result of having illustrated 30 medicinal plants of Montserrat for a booklet produced by Montserrat National Trust and the UK Overseas Territories Conservation Forum, I got to travel to the Caribbean and teach botanical illustration there for a week. It truly was working in paradise.

## Drawing plants you've never seen

I am often asked to illustrate species which I have never seen in the flesh. It's harder than drawing from life, but with photo and online reference it is possible.

Many of the plants illustrated for the booklet were new to me, or fruits that I had never seen growing *in situ*. One of the things I was keen to do whilst on the island was to find as many of these plants as I could, and compare them to my illustrations. It's nerve wracking, but important. If there are big discrepancies then the illustrations need to be done again and improved.

## Fruit trees: Soursop *Annona muricata*

It didn't take long to recognize some of the plants I'd illustrated. On a guided nature hike, I was shown the soursop fruit.

I recognized it from my illustration, which is always a good sign. Having struggled with the pattern of the spines on the fruit's skin, it was a relief to see that the geometry was similar to my illustration. I couldn't reach the fruit, but was glad when our guide told me that yes, the flesh was indeed a creamy white colour.



Left: Soursop fruit on tree  
Right: Detail of my illustration: Fruit of the Soursop

The tree wasn't in flower, so I have to hope that the photos I amassed and worked from were accurate.

Soursop leaves are gratifyingly similar to those I'd illustrated, and to many other leaves from the list. Smooth, glossy, dark green with simple margins.

## Fruit trees: Guava *Psidium guajava*



Close up of my illustration of Guava fruit

I found my Guava tree in Elvis Gerald's garden. I have seen and eaten guava before, but never noticed the tree it grows on.

The fruit are the same colours as my illustration, if a touch rounder. I didn't cut open the fruit to see if the flesh is the same pink colour I showed; that would have been rude.

The distinctive lateral veins on



Left: Guava growing in Elvis's garden  
Right: My illustration of Guava

the leaves are clear. I intentionally toned them down a little when I added colour to my painting, I now wish I'd kept them starker.

The blossom was a bit less convincing. Although the basic colour and shape is right, in reality there are a lot more stamens than I included in my illustration. The flower is passable, but not a good representation.

## Trees: Trumpet Bush *Cecropia peltata*



Above: Trumpet bush on the Dry Waterfall trail  
Top right: My illustration of the Trumpet bush  
Right: Underside of Trumpet bush leaf

Another plant we were shown by our natural history guide was the Trumpet bush. The leaves are the right shape, and the way they grow from the trunk feels right too.

What amazes me is the sheer size of each leaf. They are enormous! Luckily the scale doesn't matter in my illustrations, but I am sure I have drawn them too small.

The other surprise is how very white the underside of each leaf is. Yes, I illustrated the leaves as pale below. But if I were to repeat the illustration I would make them closer to white than to pale green.

## Pung Coolie *Momordica charantia*

In the car park near our trail-head, our guide Loydie pointed out the Pung coolie, growing in the grass.

This plant surprised me by being far smaller than I'd imagined. The tendrils and pale yellow petals are the same, but I'd envisioned it as having flowers the size of courgette flowers, not



Left: Pung Coolie or Bitter Melon  
Right: My illustration of Pung Coolie



Left: Photo Aloe vera  
Right: My illustration of Aloe vera

these far smaller blossoms.

It looks very similar to my illustration, irrelevant of size. Saying that, the specimen I saw wasn't bearing fruit, so I can only hope these are depicted correctly.

### Blue Vervain or Porterweed *Stachytarpheta jamaicensis*



Left: Photo of Blue Porterweed  
Right: My illustration of Blue Vervain

Driving back from the walk, I spied some spindly blue flowers. I was really pleased to see them, all along the roadside verges were lots of Blue Porterweed plants.

The flowers fell from the spikes almost as soon as I picked them, but they stayed long enough for me to realise the shapes I'd drawn were correct, even if the shade of blue I used was not quite purple enough. I think my leaves should have been a touch smaller and a little shinier.

### Aloe vera

This plant grows everywhere in Montserrat, along road sides, and more prolifically where it's a bit drier.

I know the illustration is more or less OK because I have an Aloe vera in a pot here at home. However, it's good to see that the shade of green is pretty well matched to the wild plant. As I didn't see one in flower, I have to keep my fingers crossed that the inflorescence is correct.

### Love Vine

Driving up Jack Boy Hill, about a mile up the road, suddenly everything seems to be strewn with orange tangles of thread.

I'm afraid I shouted out in joy when I realised I was driving past



Left: Photo Love Vine on an Acacia; Right: My illustration of Love Vine

thick nests of Love Vine. This was particularly satisfying as I'd struggled to understand the nature of the plant and the colour scheme when illustrating it.

Seeing it grow, I realise it grows like *Dodder cuscata* in the UK. And looking closely, the colours on individual tendrils do indeed fade from light green through yellow to a rich orange. This plant was my happiest comparison.

### Resurrection Fern *Pleopeltis* or *Polypodium polypodioides*

The last plant I saw growing that I remembered to take a photo of was the Resurrection Fern.

This was on trees and tree trunks in the mesic wet forest areas. The sori do indeed leave prominent marginal bumps on the leaves, and the central stem is almost as hairy as I showed it (but less purple).

What I got wrong is that on the plants I saw growing, very few had mature sori pointing upward. This could have been chance, or perhaps it's the way the plant grows. I think the leaves I



Left: Photo of Resurrection fern; Right: My illustration of the Fern

illustrated could have been a richer and shinier green. Saying that, the plant is recognisable and that's the acid test.

### Other plants I saw...and failed to photograph

Unfortunately, I failed to take photos of the Sensitive Plant *Mimosa pudica*, West Indian Bay-leaf *Pimenta racemosa* or Lemongrass. I ate leaves of the latter two in Elvis's garden, so it's not as if I didn't have the chance to examine the plant where it grew.

My biggest regret is not taking photos of the very beautiful Bush tea or Quickstick *Gliricidia sepium* tree. These were in full bloom, dotting the wooded hillside with delicate pink tree crowns. I picked some of the flowers, and even had them in a jar on the table. But I failed to draw them from life or to photograph them.

Ah well, I'll just have to go back next year....

### Conclusion

On the whole, I'm pleased with how closely my illustrations tally with the plants I saw growing in the wild in Montserrat. Inevitably there's some discrepancy of scale. Luckily this doesn't matter in drawings. Colours are occasionally slightly different. I didn't get to see every plant I've illustrated, nor see



My illustrations of Mimosa and Bush-tea Tree

every life stage of each plant.

What I really love is being able to touch the growing plants, rotate them, smell their leaves and flowers. Yes, I can work from photographs and picture reference. But the experience is much more exciting and far easier if you're able to hold the plant in your hand as you paint.

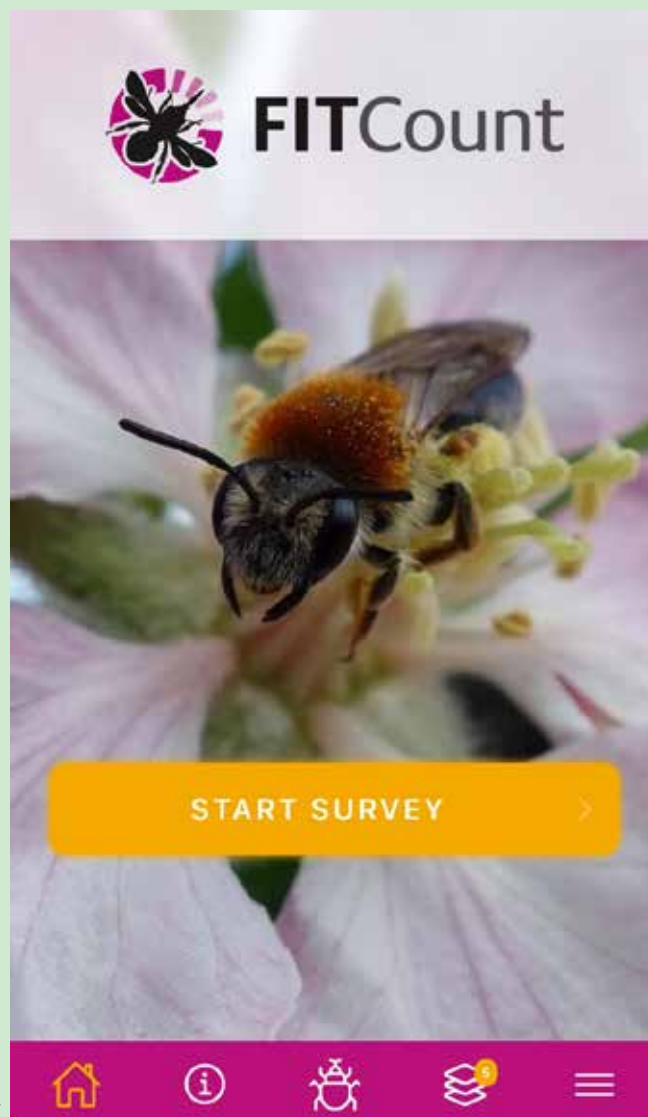
## Flower Insect Timed Counts – measuring the abundance of pollinators in Montserrat

Pollinating animals are incredibly important as they mean we can have fresh food! Unfortunately, around the world, pollinators are in decline as they suffer the effects of climate change, loss of habitat to live and feed in, pesticide-use and invasive non-native species. DPLUS192 (see elsewhere in this and previous issues), a partner project with MNT, DoE and UKOTCF (and others), and building on the *Adopt a Home for Wildlife* project (see articles in many previous issues and the last one in this issue), part-funded until last year by grant DPLUS155, is seeking your help to help pollinators (and other biodiversity) by giving them some space in your yards and land. As part of this work, we also want to look at how numbers of pollinators might change if you give them somewhere to live and food to eat.

As such, as part of DPLUS192, the Montserrat National Trust and UKOTCF have started to track the abundance of pollinators on Montserrat using the free UK Centre for Ecology & Hydrology's FIT Count app (pictured right).

Over the next months, this application will be adapted to Montserrat so that local flowers and pollinators are shown in the application. This will then enable people to go and record the number of pollinators visiting their flowers. We will keep you posted on progress on using this application in our next issue of *SOS Nature of Montserrat*.

Please contact Montserrat National Trust if you would like to know more about these counts and how you can help pollinators and other biodiversity on Montserrat.



Screenshot of the UKCEH mobile application FIT Count

# Montserrat: A Model Garden

Here is the last article in this issue from **Lizzie Harper's** highly productive visit to Montserrat.

Some months ago I worked on a diagram of an idealised garden which grew flowers, fruit, herbs, and vegetables all year round. The most unusual thing about this job is that the garden was on the island of Montserrat, in the Caribbean (see *SOSNoM* 16: 20-21).

As I drew up my pencil rough, including all the species listed as growing on this plot of land, I wondered how on earth anyone could ever be expected to have such a wide variety of plants in one garden. Little did I know then, I was soon to see the garden in real life.

## Elvis Gerald's Garden

One of the many highlights of my recent work trip to Montserrat (see pages 11-14) was visiting Elvis's garden.

Elvis Gerald is a remarkable and extremely knowledgeable man. Working in Montserrat's Department of Agriculture, for RSPB, liaising with Montserrat National Trust and responsible for ensuring imported fruit and vegetables don't carry harmful invasive species (as well as one of the Project Officers in the *Adopt a Home for Wildlife* project); he is also a very busy man. Which is why it was all the more wonderful to meet him at his home and get a tour of his amazing garden plot.



*Above: Mulching around apple trees with shredded paper*

*Below: Pears protected in bags*



shields the tree trunks from scalding by the sun with white paint, and mulches the base of the trees with shredded paper.

The fruits are protected from pests by being individually bagged, and tinsel and tin foil festoon the trees to dissuade hungry birds. Between the trees, Elvis grows peppers and chilis. Pots of herbs and squash plants are dotted around.

Grass is allowed to grow to protect the soil, and carefully placed irrigation pipes provide water during drought. In my diagram I put these in a corner; in reality irrigation tubes stretch the width of the plot.

## Guava, Banana and Papaya

I was thrilled to see a Guava tree growing, complete with blossom. Other tropical fruit trees grew alongside. There were bananas and plantains.



*Guava blossom in Elvis' garden*

## Caribbean garden: Temperate orchard

The very first thing I clocked about Elvis's garden was that it's on a slope. I had not even considered this when I was drawing it, and was wondering about the layout. It made the whole enterprise even more remarkable. The first area we saw was on a gentle gradient. The same is not true of areas round the back of the house.

Apple and pear trees aren't commonly grown in the Caribbean. They are temperate fruit. So imagine our surprise to see several varieties of apple, pear and even nectarines thriving. Elvis



Elvis's banana palms

Lots of Papaya grew, with fruits still green. The lobed leaves, and the way they grow out from the trunk is instantly recognizable. These trees grow throughout the garden, often on very steep areas. Some grew alongside pomegranates.



Papaya tree alongside my diagram

As suggested in my species list, there were also Dragon Fruit, Figs, Mulberry, and Barbados Cherry

Native species growing in amongst include the Rainfall Bush, Gumbo Limbo, Noni, Broadleaf and Bay-leaf. The Bay was



West Indian Bay-leaf  
*Pimenta racemosa*

fascinating. It's far larger than our European Bay and has shiny, leathery leaves. Although the smell is similar, it's more nuanced. Elvis uses the leaves for tea and to flavour porridge.

There is also a hedge of Pribby, an endemic species.

### Cabbages

I love a beautiful cabbage as much as the next person, and have delighted in illustrating them in the past.

However, I was not expecting to see some of the most perfect cabbages I've ever



Left: One of Elvis' cabbages; Right: My Savoy cabbage completed for Rodale Publishing's Vegetable Garden Problem Solver

encountered growing on a steep hill in Montserrat. Elvis says slugs and snails are not a problem, so the cabbages thrive. As do the lettuces, salad leaves, seedlings, and other low-lying plants.

As with the diagram, amongst the cabbage beds, Elvis grows peppers and other plants. This shields the earth from the hot drying sun, a concept my illustration has failed to capture.

Companion planting is part of Elvis's armoury. There are French Marigolds and plenty of Tridax Daisy *Tridax procumbens*. This pretty little plant provides ground cover and is important for pollinators.

### Pests

I was grateful that there was netting underfoot in amongst the sweet potatoes, squash and cabbages. I assumed it was there to stop Elvis from sliding down the hillside as he gardened. The slope below the house is quite extreme.

No. It's there to deter the iguanas. These lizards grow to massive sizes, and are the bane of many gardeners on Montserrat. Tinsel scares off the birds. Netting shields vegetables from iguana. Companion planting encourages natural predators of insect pests. And these are only the pest deterrents I noticed! I have no doubt that many more are also at play.

### Herbs and Spices

Tucked amongst the trees and vegetables are lots of pots of herbs, for example Chocolate mint, Cinnamon and Lemon Basil, Coriander and Rosemary, Thyme and Tarragon.



Pots of herbs



Above: Turmeric; Below: Lime



Elvis also grows Ginger and Turmeric. I'd not seen turmeric growing before, and was surprised to see how close to the surface the root is. It reminded me of an iris. Earlier in the day, Elvis had harvested some cucumbers.



**Dry Garden**

It came as something of a surprise when Elvis pointed out that he had a second garden too, further down the hill. Luckily for us, he was willing to show us around there too.

Endemic Pribby in Elvis's garden



Sweet potato flowers alongside diagram of the plants growing with Tridax daisy and squash

This garden was flatter, and much drier. It was rich in fig trees, avocado, and limes. Montserrat used to be known for its lime juice, until scale insects wiped out many of the citrus orchards. It was sad to see some evidence of these insects on Elvis's trees, too, although the fruit looked healthy.

There were lots of sweet potatoes growing. I was relieved that the unlikely purple trumpet-shaped flowers I had found in research were indeed the right flowers for a Sweet Potato plant.

**Conclusion**

We left Elvis's gardens in awe. That someone holding down several jobs and no small level of responsibility could also maintain two beautiful and productive gardens was almost alarming. So much produce, year round. Unencumbered by long European winters, and only fettered by droughts and animal pests, Elvis has created the sort of garden anyone would be jealous of.

It is also the only time in my life that I have seen reality being more organised and perfect than my idealised diagrams. Elvis Gerald, I salute you.



Elvis Gerald with some of the UKOTCF team: Catherine Wensink and ecologist Jodey Peyton

# The scale insects of Montserrat

Chris Malumphy, Fera Science Ltd

Scale insects are plant-sap feeding insects, closely related to the aphids, whiteflies and psyllids. They are among the most highly specialised of all plant parasites and feed on all parts of the plant including the roots, stems, leaves, buds and fruit. Some feed within hollow plant-stems or plant-galls; others mine beneath bark or live within plant-tissue. There are about 8,400 species in 35 families, in the superfamily Coccoidea. Scale insects cannot necessarily compete on aesthetic appeal with other groups of insects such as beetles and butterflies, but what they lack in size and beauty they more than make up for in interesting biology and economic importance (beneficial as well as harmful).

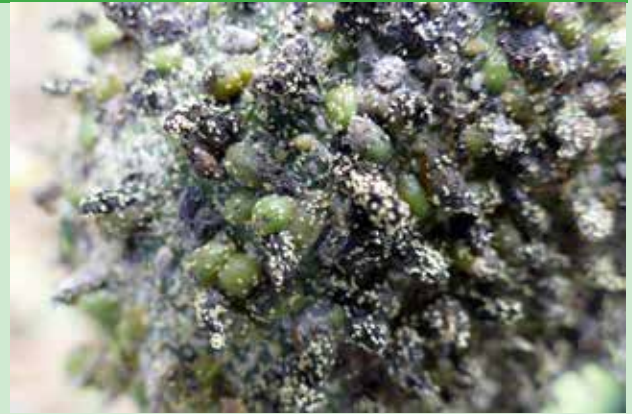
Scale insects show a tremendous diversity of biology. Most reproduce sexually, others parthenogenetically, others sexually and parthenogenetically, while a few are true hermaphrodites. The adults exhibit extreme sexual dimorphism. Adult females are larviform and neotenic (sexual mature in the larval stage), whereas adult males are usually winged and resemble small flies.

They damage plants directly by removing sap which reduces host vigour, and may cause chlorosis, discolouration, pitting, leaf and shoot distortion, localised necrosis, premature leaf drop, drying out of the foliage and stems, die back, and death of susceptible plants. Many species egest copious quantities of honeydew which smoothers the host and serves as a medium for the growth of black sooty moulds. The mould reduces photosynthesis and market value of fruit and ornamental plants.

Several exotic species have recently invaded the Caribbean Region, and some are having a high economic, environmental, and social impact. Examples include the pine tortoise scale *Toumeyella parvicornis* which caused a catastrophic decline of the Caicos pine in the Turks and Caicos Islands and croton scale *Phalacrocooccus howertoni* which has become a major pest of ornamentals and fruit trees.

The study of scale insects in Montserrat began at the end of the nineteenth century, much earlier than most territories in the Caribbean. This was because two non-native scale insects had been introduced and were badly affecting the island's key lime juice industry. Montserrat had been exporting lime juice since the 1850s, mainly to the Royal Navy to ward off scurvy, earning them the nickname of "Limeys" among American sailors. The scale insects were native to Asia and show that the introduction of invasive species to Montserrat due to anthropogenic activities is nothing new. Despite their economic importance there have been no comprehensive studies of scale insects in Montserrat.

I was fortunate enough to be able to collect scale insects in Montserrat 2019 and 2023 while helping to run workshops on biosecurity organized by the GB Non-Native Species Secretariat and the Government of Montserrat. Elvis Gerald and Bernitta Serrant (Ministry of Agriculture, Trade, Lands, Housing and Environment), and others, have also contributed. This has revealed the presence of about 60 species, the majority of which are new records. Some of these species are important agricultural pests, for example the croton scale on avocado, mango, soursop, and sugar apple, Seychelles scale *Icerya seychellarum* on avocado, breadfruit, citrus, guava and mango, white mango scale *Aulacaspis tubercularis* on mango, cassava scale *Aonidomytilus albus* on cassava, and coconut mealybug *Nipaecoccus nipae* on coconut, and stellate scale *Ceroplastes stellifer* on mango. The barnacle scale *Ceroplastes cirripediformis* has been found causing severe dieback on woody ornamental plants, and many species have been recorded in the Centre Hills forest reserve, but their environmental impact is unknown. A few species, for example the banana-shaped scale *Prococcus acutissimus*, have not been found anywhere



Above: Soursop fruit covered in croton scale  
Below: Mango infested with Seychelles scale



Above: Coconut mealybug on coconut, attended by a fire ant  
Below: Barnacle scale on Ixora



Left: Stellate scale, close-up of an adult female; Below: Banana-shaped scale



else in the Lesser Antilles archipelago.

The study of scale insects in Montserrat has been largely limited to anthropogenic habitats, such as agricultural land and urban areas, and the fauna of natural habitats and on native plants, is largely unknown. The opportunity to find new species and conduct original research is enormous and I can't wait to visit this spectacular island again.

## Building Horticulture Capacity in Montserrat (part 2)

Here, **Leigh Morris** (CEO of Manx Wildlife Trust and UKOTCF Council Member) reports on the horticultural upskilling carried out in Montserrat during July & August 2024 to support the UKOTCF delivery of Darwin Plus Projects 155 & 192. This was the second visit by Leigh, following the first in May 2023. (This is extracted from a longer article, available at <https://www.ukotcf.org.uk/wp-content/uploads/2025/02/Montserrat-UKOTCF-Report-August-2024.pdf>).

### Summary

This report covers my second visit to Montserrat, which took place from 18 July to 5 August 2024, to help build horticultural skills on the island and support the UKOTCF delivery of two Darwin projects DPLUS 155 (ending in 2024) and DPLUS192. This trip I focused on pest and disease control, plant-pruning and reinforcing the plant-propagation approaches in the Montserrat National Trust (MNT) nursery. My key audience was the MNT team and the Adopters (members of the community developing and managing their land within the *Adopt-a-home-for-wildlife* part-funded by DPLUS155).

My first week was spent visiting Adopter sites (Wildlife Home) and farms, to develop the topics for the training workshops in week two. I visited 11 of the Adopter sites, including small private gardens, school grounds and more expansive natural landscape areas. I can see that much has been achieved during the project, and I believe that with several of the Adopters this will sustain, providing an opportunity to develop the nursery plant growing and wildlife enhancing aspects even more. I made a series a farm-visits accompanied by Chris Sealys (MNT) and Elvis Gerald (Montserrat Govt. Farm Extension Officer, and *Adopt a Home for Wildlife* project officer), having useful conversations with Montserratian and ex-pat farmers. They ranged from part-time farmers growing field crops, to one farmer who was full-time producing lettuce more intensively.

In my second week I delivered three horticulture training workshops on Plant Pruning, Pest and disease control, and a refresher for MNT team on plant-propagation. The horticultural workshops were well received, with high levels of enthusiasm and interaction on both workshops, with, I believe, genuine learning achieved, and there is a clear need and desire for more training from the participants, including from some interested gardeners

and landscapers. Following the training, a presentation event was held at MNT, with all those who had attended horticulture training in 2023 and 2024 being invited to receive a certificate of attendance.

The standards we had jointly set for propagation during my visit in 2023 had regressed due to capacity and other priorities, but it was good to see the endemic Pribby we propagated last year looking healthy. The refresher training I delivered to the MNT team has reinforced the key horticultural points. Paramount now is to set and sustain nursery systems and ways of working, and to that aim I still see a great long-term benefit to MNT by writing and adopting of a Living Collections Policy and Plant Production List.

Looking at agriculture was not an aim of my visit, but food production in Montserrat has major impact on the environment of the island. There is clearly a poor understanding in Montserrat of how to use pesticides safely and effectively to control pests and diseases and benefit food production, while at the same time minimising the risks to wildlife and people. I regard this as a crux issue for the island and needs to be tackled in several ways. My overall belief is that much more local food could be produced in a more regenerative and nature-positive way, and a clear strategy is required to achieve this.

Wider engagement on my visit included meeting people from the Joint Nature Conservation Committee (JNCC), and David Clements, an entomologist, who accompanied me on several visits (see SOSNoM 17 for a report on David's work). I participated in an excellent session with Monty's Ambassadors (the MNT youth group), and on my weekends I dived with Scuba Montserrat and assisted with their coral-reef conservation work, alongside two marine biologists from Australia. I spent several late evenings observing green-turtle nesting, visited the Mountain Chicken enclosure and a wonderful private garden owned by two MNT supporters. It was great to witness the developments in the MNT nursery, with new buildings for the team, and to visit the new MNT Pipers Nature Trail and, soon to be re-opened interpretation centre in an old sugar mill at Richmond Hill (the pre-eruption home of the National Museum).





Overall, my two visits to Montserrat have helped build horticultural capacity and have facilitated more joint working and collaboration across the island. The key upskilling has been with the MNT team, who I hope and believe will continue to showcase and champion the good horticultural practices we covered in my training. My own personal knowledge and understanding of Montserrat's environmental issues has expanded greatly, which I believe enhances my usefulness in wider UKOTCF Council.

The full costs of my trip were met by UKOTCF through the Darwin Plus Project funding. My employer, Manx Wildlife Trust, granted my additional time away to carry out the visit.

My broad aim was to continue my work from 2023 and continue to build horticultural skills in the island to benefit conservation, environment and local food production. Specific objectives being:

- Continue to build up horticultural skills at the MNT botanic garden.
- Work with Adopters (members of the community developing and managing their land for wildlife within the *Adopt a Home for Wildlife* project) to support them.
- Look at legacy of Adopters in so far as using all information learned to feed into the creation of a toolkit where Adopters of the toolkit will build on earlier work.
- Develop and deliver a certificated horticulture training course.
- Involve gardeners/landscapers, farmers and the Montserrat Government (Department of the Environment) in the training whenever possible.
- Liaise with MNT to prepare for the visit of the Manx Wildlife Trust Education Officer (Beth Penhallurick) to support DPLUS192 and the School twinning programme in November 2024 (see article in this issue).
- Sign up to iNaturalist and input biological records while in Montserrat [www.inaturalist.com](http://www.inaturalist.com)

### ***Adopt a Home for Wildlife site-visits***

The *Adopt a Home for Wildlife* project was part-funded by Darwin Plus grant 155 until September 2024. It is managed by UKOTCF and MNT (see UKOTCF website for project details: [www.ukotcf.org.uk/key-projects/adoptahomeforwildlife/](http://www.ukotcf.org.uk/key-projects/adoptahomeforwildlife/), as well as previous issues of SOSNoM: <https://www.ukotcf.org.uk/newsletters/project-newsletter-1/>). The project funding ended in 2024, but the Adopters, MNT and UKOTCF intend that the work continues. One of the aims of my trip was to engage with the individual Adopters, to provide knowledge and training, and imbed the legacy of the project.

There were 15 Adopter Sites designated in the project (11 in Phase 1 and four more in Phase 2). During this trip I visited eleven of these in the order below, accompanied by Chris Sealys (MNT Conservation Officer).

**Tim Orton, Garibaldi Hill (WH01):** This was the first Adopter site and part of the genesis of the whole project with UKOTCF. Tim has a large garden bordering tropical dry forest, which he is trying to regenerate. Non-native Acacias have been cleared, and Neem seedlings frequently removed. Some planting and some natural regeneration have taken place. The site has challenges with the soil, as the top 18" (45cm) is volcanic ash (pH 8.7), with then just 2-4" (5-10cm) of soil underneath before the bed rock. The volcanic ash killed most of the understory plants



*Above: Formal lawn/garden with tropical dry forest behind. Below: Inside the tropical dry forest*



in the forest, and the bare soil/ash heats up massively, so any planting is challenging. Tim believes he has benefited greatly from knowledge from MNT staff, Scriber, etc. and he intends to carry on after the project funding ends.

**Norman Cassells, Hibiscus Drive (WH13):** Norman has been developing his garden for 30+ years. In the last 5-10 years his ideas have developed greatly, and his vision now is to create a large water-garden with ponds, waterfalls, aquaponics with tilapia (fish), and overhanging palm trees (apparently the ones trained to grow horizontal are worth much more money), which becomes a garden people pay to visit and enjoy. Norman recently delivered a talk on his garden at the MNT evening celebrating the *Adopt a Home for Wildlife* programme, which covered how he intends to monetise his garden with paying visitors, plant rental for events, selling crops including cut flowers.

Baseline surveys carried out three years ago of invertebrates and flora were repeated every year. In the annual survey, Chris looks at species and abundance of invertebrates on different surfaces, including on flowers, which are photographed and sent to Catherine at UKOTCF.

Norman faces challenges in this space. This site is impacted by volcanic ash with a layer of ca.2 feet (60cm) covering the site. This causes fruit-trees to die in dry spells. Agouti and Iguanas are significant pests and, for example, ate all the sugar-cane. The pandemic has held up the development of the water-gardens. Norman plans to plant a Pribby hedge, with plants supplied by MNT, but MNT have a limit, so this may not be possible. There is an opportunity to make this a future MNT nursery



Above: Norman explaining his garden to the author.  
Below: Garden view



Forest-clearing area in the foreground, with remaining trees behind.

plant production target. Norman has a Variegated Bougainvillea that Chris is keen to propagate, and this could also be added to a nursery production list. Fatpoke is used by Norman for fire prevention.

This is an excellent space and at the time of the visit, was deemed to be a potential venue for the workshop the following week, with Norman assisting with the training.

**Kathryn and Mark Couch, Hibiscus Drive, Olveston (WH08):**

A short visit, as the owners were currently off the island, but permission to visit was obtained. Some small plots have been added/planted around the house, along with a new lawn, more



View of the rear garden including part of the lawn area.

flowering plants and planters by the pool.

**Carol Osborne, Cassava Ghaut (WH12):** Carol (who was not there on the visit), with assistance from the project, has cut down invasive trees in mature secondary forest and replaced them with papaya and banana orchard, grass lawn and seats to create a more useable area for recreation and food production, also allowing more space for the native species and re-creating a

forest clearing, important for invertebrates and birds.

**Veta Nicholas, Lawyers Mountain 2 (WH10):** Veta organised the construction of her house built in 2021 on a sloping hillside on Lawyers Mountain, where the cutting into the hillside was steeper than she had wanted. Veta is concerned about erosion damaging her house “I need to build supporting walls”. The access road is officially below the property but had not been opened; the road adjacent to the house that we arrived by is on private property.

Veta by her own admission has not done much in the garden, apart from adding a few edible plants. There was evidence of goat damage on a young palm, and I advised Veta to put a small fence around it while it establishes. This is an example of secondary vegetation being cleared to create a food-garden. MNT, through the *Adopt a Home for Wildlife* project, has provided Veta with some advice and some growing medium. She has been promised plants. Veta also noted that some Adopters can afford to employ a gardener, but she is one of those who cannot afford to do that.

Veta is very positive about the *Adopt a Home for Wildlife*



Above: Highlighting the slope on which the house is constructed. Next page: Chatting next to some of her pot plants she is keen to plant out.



project, which she feels is “really brilliant for Montserrat”. Veta enjoys attending the presentations at MNT and working with others in the Adopters group. Veta had an interesting image of a stripy flat-worm she had taken, which I encouraged her to put on iNaturalist. Veta used to use iNaturalist but admitted that she needs to set it up again. I had an enjoyable conversation with Veta, who is housing officer for Montserrat government. She informed me that there are no homeless people in Montserrat, but there are issues of domestic conflict and overcrowding. The challenge for young people is the money to pay a mortgage. Veta subsequently attended the workshops and presentation event at MNT and is very keen and engaged.

**Cherise Aymer, Lawyers Mountain 1 (WH07):** I had previously visited this site in 2023. This is an example of a person wanting more help from MNT, with ornamental garden and food plants, than MNT had the capacity to deliver. Highlights the local



*View of the lawn around the front/base of the property, with the native and fruit bushes on the slope beyond..*

demand and need for the *Adopt a Home for Wildlife* programme.

**Look Out Primary School (WH06):** I had previously visited this site in 2023. Sea-grapes have been planted inside and around the fence surrounding the sports-pitch, to provide a badly needed wind-break, both to benefit the pupils and to allow other plantings. The Education Department gardeners had cut them all down in error, but most (c.20) are still alive, although quite small at present. They look now to have established and should start to grow away. Fat Poke is being grown at MNT ready for planting here. In chatting with Chris, there appeared to be the opportunity



*Above: Exposed Lookout School playing field. Below: example of the small but recovering Sea-Grapes.*



to better connect individual Adopter project plant requirements, with the MNT nursery production plan.

**Merle Galloway, Tropical Mansion (WH14):** This is a most recent addition to the *Adopt a Home for Wildlife* programme (around December 2023). This is one of the biggest hotels/guest-houses in Montserrat currently (16 rooms and 16+ acres) and Merle is the owner; she has a strong background in health and well-being and has studied in several places. The property was built 25 years ago after the volcano, which put larger hotels further south out of action. The site has been surveyed and



*Above: Reception area and car-park at Tropical Mansions. Next page: Chris Sealys, MNT and Merle in the more formal garden area.*



Merle is awaiting the results from MNT. There is some formal garden, an old small nursery in need of some renovation, and a more expansive green space around the site. Merle's ambition is to develop an ornamental and food (fruit and vegetables) garden primarily, with a new nursery and a community garden. Merle is keen to get plants and labour from MNT. Chris said there will still need to be support from MNT after the DPLUS155 grant ends and he invited Merle to visit MNT and see the plants available. Merle has recently applied for a Darwin Local Grant.

**Deidre Allien, Cassava Ghaut 2 (WH15):** Deidre wasn't there when we made a brief visit to her garden site. This is a small private garden and another new site. Chris carried out the site survey in March 2024. Deidre is Montserratian and is an environmental officer for Government. Deidre is keen for gardening advice from MNT on ornamental plants and fruit-trees, and is another Adopter who is keen for more help from



Top: Chris and Dwayne on the beach bar construction site. Above: Cattle Egrets in flight over the lowland area that changes in topography regularly with storms and water flow across the site. Below: Chris on the existing river channel approaching the sea in the background.



Back garden view of Cassava Ghaut 2

MNT in developing their garden.

**Dwayne Hixon, Belham River Mouth (WH02):** Dwayne was one of the first Adopters. The ca.29-acre site is the lowland flat plain at the mouth of the Belham River, leading to the beach. All the low land is post-volcano and made of volcanic ash/debris. The site contains a wetland that is now the Island's most important remaining coastal wetland site for birds. The existing pond has changed a lot in a recent storm (certainly looks a smaller wetland than the one I saw in 2023) and the site regularly changes (see *SOSNoM 17*).

Dwayne has dug a ditch around the site to manage rainwater flow and is considering creating a river channel to take water



straight to the sea. I believe Dwayne needs hydrology advice and more planning, and I suggested a compromise between flood protection and flood allowance for birds. More planning is needed. This is a good/interesting site for wildlife and species observed (and recorded on iNaturalist) included Centris Bee, Beach Cabbage, Small Plover, Tiger Moth and the invasive bullrush.

Dwayne has a plan of the site, and he is looking to develop it for events and started building a beach bar c.5 years ago. In terms of future planting development, Dwayne is keen to plant Flamboyant Trees (Fabaceae) in orange, gold and yellow, which apparently coppice easily, and he has also tried to air layer

Flamboyant Trees, which have a historical significance and value for the site, and other plants (using silver foil not plastic) – although management is necessary to prevent their becoming invasive. He aims to create a boulevard of palms in the approach road to the beach bar. Dwayne clearly has some plant propagation knowledge and tries to grow plants by seed, layering, etc. ‘Silver Leaf’ Ficus has been planted as a hedge along the roadside, but this is non-native and carries a disease. Dwayne believes that many people want palms and there is an opportunity for MNT to grow and supply the right palm species.

Dwayne has received some plants from MNT and would like more. I encouraged that the MNT could see that and then agree/grow the plants accordingly. There was a need to agree the commitment before the grant ends in September. There is a great opportunity for MNT to produce plants for this site, but it needs lead-time and a nursery that delivers what is jointly agreed is required. This is another example of an Adopter site keen to get plants from MNT and there was perhaps an opportunity to have put Dwayne’s plant requirements into a consolidated Plant Production List for the MNT nursery.

### Horticulture Training Workshops

Following my visits during week one and my discussions with the MNT team and others, it was agreed that (supported by Chris) I would deliver three specific horticulture training workshops at MNT in my second full week on Montserrat:

- Plant Pruning.
- Pest and disease control and use of pesticides.
- Propagation by cuttings.

Training in plant-pruning had been requested specifically by MNT and UKOTCF for the *Adopt a Home for Wildlife* project. They believed that providing the Adopters with a broader understanding on how, why and when to prune would be useful now and also as a longer-term legacy for the project. Pest- and disease-control was selected as a result of several discussions and my own observations during the visits in 2023 and the first week of this visit in 2024. There are clear issues with pest- and disease-control and particularly pesticide-use in Montserrat, and there is also enthusiasm to learn more amongst the farmers (who are key users). The third workshop was to target the MNT team, to refresh and imbed more firmly the propagation skills I had delivered through my training in 2023. Inevitably, much of the short-term progress made in the MNT nursery in 2023 had regressed, and Chris Sealys was keen that the MNT staff team were refreshed and re-enforced. The aim was to do this.

The three workshops were attended by MNT staff, *Adopt a Home for Wildlife* gardeners, farmers and private landscape gardeners.

#### ***Introduction to Plant Pruning (Monday 29th July):***

A half-day workshop, with the option for attendees to stay on for longer to have more pruning practice supervised by Chris Sealys and myself. In advance of the workshop Chris and I purchased additional hand-saws and secateurs, to go with the range of tools MNT already owned. The workshop was an opportunity for the participants to:

- Learn the principles on how to prune plants.
- See a range of pruning tools and techniques being demonstrated in the MNT Garden (and ‘have a go’ at the different techniques if you would like to).
- Understand the reasons for pruning plants and why good pruning is beneficial for your garden.



*Top: Delivering the opening interactive talk. Above: Attendees participating in demonstrations and practical work. Below: the whole group*



#### ***Pest & Disease Control, and Safe Use of Pesticides (Wednesday 31st July):***

There had been notable interest from a mix of stakeholders in the island including farmers, and so, to enable as many as possible to attend, the workshop was delivered twice at MNT, in the morning (10am to 1pm) and then repeated in the afternoon (3pm to 6pm). Lunch and refreshments were provided for all participants between the two sessions.

The workshop aimed to provide the attendees an opportunity to:

- Discuss current pest and disease problems in Montserrat farms and gardens.



environment, and reduce health risks to the farmers and community.

Each session included interactive lectures, demonstrations including the internal workings of a CP3 knapsack sprayer (the sprayer of choice used in Montserrat and supplied by the Government and Farmers Association to growers), and two breakout sessions, where the course split into two groups to discuss and make notes on two topics:

- What they believe are the main Montserrat pests & diseases on crops and garden plants.
- The health and safety and application rates information on the labels from example pesticides available in the Farmers Association (with both low and high health risk examples included).

The notes from both groups in the morning and afternoon sessions were presented to the class by spokespersons from every group, and their sheets were photographed. All attendees completed a feedback sheet.



### ***Propagation by Cuttings – Refresher Training (Thursday 1st August):***

This was a specific practical training day for the MNT team; to refresh and re-enforce the propagation skills taught in the workshops I delivered in May 2023. I focused on re-demonstrating good practice for the collection, preparation, insertion and aftercare of cuttings for plant propagation.

At the commencement of the session, I led the group around the MNT garden looking at various plants and selecting and allocating different plants to individuals for collection. We discussed all the plants as a whole group and how we would propagate them, before splitting up into smaller groups of two or three to collect cutting material. We returned to the propagation house where I re-demonstrated the mixing of the rooting medium, and how to fill and water a cell tray prior to cuttings to be inserted.

The group then prepared and inserted cuttings of a range of plant species, and the trays were placed onto the mist propagation bench (after it had been cleared and power washed). The polythene cover was then re-instated over the bench to ensure higher humidity.

*Top: Delivering interactive lecture and demonstration session, including Integrated Pest Management and the use of a CP3 knapsack sprayer. Above and below: Each of the morning and afternoon sessions included two breakout groups, during which the attendees discussed, made notes, and fed back to the whole class, interrogating and making notes on a range of pesticide labels.*



*Above and next page: The process of collecting the cuttings, mixing the rooting media, filling trays, preparing and inserting cuttings, and the full trays on the mist bench being watered.*

- Gain an understanding of different approaches to controlling plant pests and diseases.
- Learn how to use pesticides better, to improve their effectiveness, save money, reduce impact on the



### *Presentation of Training Certificates*

A presentation event was held at MNT on 2nd August (Figure 24 below), with all those who had attended horticulture training in 2023 and 2024 being invited to receive a certificate of attendance.

In advance of the presentation of the certificates I delivered a short talk and PowerPoint presentation, on the work I had carried out on this trip. I was particularly pleased that some of the farmers and landscapers attended, along with the MNT staff team.



*All the recipients of Certificates at the awards*

The recent phase of *Adopt a Home for Wildlife* project (DPLUS155 *Securing Montserrat's threatened endemic species and natural capital through community-action*) and the project *Delivering biodiversity and human well-being gains for Montserrat's sustainable development* (DPLUS192) are currently resourced by the following organisations:

Partners in earlier phases of the Saving Our Special Nature of Montserrat programme included some of those at the top of page 1, plus:

