

Saving Our Special Nature of Montserrat

Newsletter 14, March 2023



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

Foreword

Welcome to the 14th 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 current phase of *Adopt a Home for Wildlife* is now half way through its 3-year duration, as reported previously in *Newsletters 11 (November 2021)*, *12 (May 2022)* and *13 (September 2022)*.

During calendar year 2022 and the first 3 months of 2023, another project was running parallel to it, as announced in *Newsletter 12*. This is *From Blue Iguanas to Blue Vervain – Sharing the colonial histories from the UK Overseas Territories*, launched in Montserrat in July 2022, during a joint programme of work of both projects - to make the whole provide even more for Montserrat than the sum of the parts. And now we have the exciting news that all these will be built on by a new Darwin Plus-supported project, DPLUS192. There is more in this issue.

This issue focusses on the work that took place during that intensive period of activities, as well as the continuing work of local project officers, supported by the UKOTCF team in UK and elsewhere.

As forecast in the previous issue, we focus in this one on some of the individual *Wildlife Homes* and *Adopters* who are participating in the project, and introduce some of the other specialists who are helping and reports on their visits expected over coming months, together with items on some of the related work.

We are very grateful for the many kind and encouraging comments from people welcoming the first twelve newsletters. We hope that you enjoy this 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. Earlier issues can be accessed at: <https://www.ukotcf.org.uk/newsletters/>. For more information on the project, the main contacts are:

Dr Mike Pienkowski & Mrs Catherine Wensink, UK Overseas Territories Conservation Forum: m@pienkowski.org cwensink@ukotcf.org. See also www.ukotcf.org.uk. Mrs Sarita Francis, Montserrat National Trust: mnt@montserratnationaltrust.ms



A few of the many insects endemic to (i.e. found naturally only in) Montserrat, and important in sustaining the ecology. These are three of the long-legged flies (Dolichopodidae) species new to science discovered, as part of a UKOTCF/MNT/GoM project, by Dr Justin Runyon, of Montana State University and US Department of Agriculture Forest Service (report and images from <https://zookeys.pensoft.net/article/55192/list/7/>). From left: heads of male *Medetera iviei* (scale bar: 0.5 mm); *Medetera montserratensis*; *Chrysotus callichromoides* (scale bar of both: 1.0 mm).

Team visits in December and January

Ann and Mike Pienkowski of UKOTCF visited Montserrat for the first half of December. Much of the time was spent filming and interviewing Adopters on their sites (“Wildlife Homes”) – and, subsequently back in UK, editing to make many published videos. Some of these have now been published online (<https://www.ukotcf.org.uk/key-projects/adoptahomeforwildlife/>; scroll down to Project Update) and others will follow. MNT has drawn attention to some of these in social media.



Inspiring head-teacher Mrs Denelta Weekes and some of her enthusiastic students at Lookout Primary School (Wildlife Home 06).

All photos: Ann Pienkowski

Adopt Home for Wildlife is a project which aims to protect Montserrat’s unique biodiversity, ecosystems and natural capital through community action. It is being led by the Montserrat National Trust on island and the UK Overseas Territories Conservation Forum, which coordinates support from partners. *Adopters* are those local people or groups who volunteer and are accepted to manage an area of land (*Wildlife Home*) within the project. A network of sites across the island is being established where action takes place to improve conditions for biodiversity and, where possible, opportunities for people to improve livelihoods and well-being are provided. Preliminary ecological surveys of the sites are conducted and with this information a management plan is developed between the *Adopter* and the project partners.

Some of these visits to *Wildlife Homes* and *Adopters* form a large part of this issue. Others will appear in the next issue.

The UKOTCF team had discussions also with Montserrat National Trust colleagues about project work present and future, including addressing some challenges. They met with the Minister of Agriculture, Lands, Housing & Environment, Hon. Crenston Buffonge.

They participated in radio and streamed video shows, and held a meeting with Adopters to celebrate work so far, with presentations



Antwone Sinclair and Samantha Paul propagating native plants at MNT’s nursery for Wildlife Homes and others



Mike Pienkowski, gardener Ishmael Farrell, and site-owner Carol Osborne at Wildlife Home 12 (Cassava Ghaut)

from Project Officers, Ajhermae White, Elvis Gerald, Delmaude Ryan and Antwone Sinclair, and a contribution from Mike Pienkowski. They also explored possible new Wildlife Homes and Adopters.

In late January, UKOTCF’s Catherine Wensink visited, mainly in respect of the project *From Blue Iguanas to Blue Vervain – Sharing the colonial histories from the UK Overseas Territories*, as well as further work on *Adopt a Home for Wildlife*. She was accompanied by Rebecca Machin (of Leeds Museums and Galleries), Jodey Peyton (of UK Centre for Ecology & Hydrology) and Wolfgang Rabitsch (an experienced entomologist from Austria, volunteering his expertise to both projects).

There is an account of the visit and the activities undertaken later in this issue.



Above: Part of Wildlife Home 08 (Hibiscus Drive). Below: Vernaire Bass and Mike Pienkowski at Wildlife Home 05 (EcoPlay).



Wildlife Home 06: Lookout School



Mike interviews head teacher Ms Denelta Weekes, some of her pupils, and project officer Delmaude Ryan at Lookout School. All photos: Ann Pienkowski

Ann and Mike Pienkowski, as well as project officer Delmaude Ryan, greatly enjoyed their visit to Lookout School, to talk with Head Teacher Ms Denelta Weekes and some of her enthusiastic students.

We had explored the possibilities of including Lookout School during the pilot study in 2017-18. However, the lack of continuity funding to keep employing a local project officer meant that we could not develop that then. However, some aspects were picked up by the Department of Agriculture to help the school develop a vegetable garden.



The agricultural patch ready for this year's cycle of activities.

So, we were particularly pleased that the school's patience was rewarded when we were able to rejoin them in the present main project phase.

The aim at this site is to maintain and re-establish nature ecosystems within the school grounds insofar as this is possible and to integrate this into the school's educational activities, with maximum involvement of students from all classes.

As for all sites, first step was to understand the ecology of the site through plant and invertebrate surveys. At this particular site, there are several considerations that need to be taken into account: (1) safety of the children and staff is paramount; (2) need to ensure space for recreational use; (3) the need for shade; (4) the exposure of the site to strong winds and salt spray.

This site appears to be in an area that would naturally be dry thicket/forest site; this would normally be characterised (in

lower elevations with low rainfall) by large shrub/small tree dominated vegetation 2.5-5m tall, in lower elevations with low rainfall. This site is dominated by grasses and low growing plants, some of which are cultivated. There are butterflies present on site; these will be using some of the low growing plants, particularly native flowering species, as butterflies and moths have strong associations with these.

The presence of bagworm moths, probably from the family Coelophoridae (case-making moths), will be using a particular plant to feed. It is unclear which plant they are feeding on, although in these high numbers, a close look for caterpillars feeding or significant feeding signs may reveal which plant they are using. Spiders are using the buildings and other man-made structures, with the lower growing areas dominated by grass but with some low growing native plants being used by grasshoppers and butterflies. In this dry open grassy habitat ants are also dominant.

An increase in structure on the site to remove the invasive grasses and replace with more typical native shrubs and trees, plus low growing plants will help increase the invertebrate fauna on the site. It will also potentially rebalance an invasive ants presence, through improved ecosystem function.



The boundary of the site, beyond the playing field, is very exposed to high winds and salt spray.

This is an exciting project, and the head teacher is determined that all pupils will have the chance to participate in one way or another.

Ms Denelta Weekes, Headteacher, explained that she hoped the *Adopt a Home for Wildlife* project would create an ecosystem in this exposed site which would have native trees and shrubs to provide shade and decrease wind and salt-spray. The students would also then benefit by being able to study a developing ecosystem, as part of their studies.

A key early stage at this site will be to plant a hedge of Sea-grape and Pribby along the boundary exposed to the ocean. The Sea-grape occurs naturally along shores and is resistant to salt spray. The Pribby is resistant to drought, wind and other adverse conditions. It is endemic to Montserrat. As the school students correctly recognised, "endemic" (in its ecological sense; the meaning is different in a medical context) means found naturally only here.

As these establish, it will provide some shelter to help other plants to establish. These could include management of the grasses and establishment of some native trees around the edges



Lookout School's enthusiastic students know the answers to our questions.

suffered. A suitable irrigation system for the plants around the perimeter, a long way from the school building, is being investigated.

Another student said he loved watching birds, and listening to them, and hoped that, when the school playing field had more trees and bushes, the students would be able to enjoy watching birds. He added that some of the younger children might be afraid of some of the insects, and that having the chance to look at these in the school grounds, they would be interested and not afraid.

Another idea from the students was to make a home for the local bottle bees, to provide honey.

Another of the students spoke with great enthusiasm about Monty's Messengers (see pages 11, 13, 14, 17 and earlier issues). One of the things she had learnt about was seed germination.

If you would like to see and hear more from these enthusiastic young people, there are links to 5 videos (each lasting 2 to 12 minutes) at <https://www.ukotcf.org.uk/key-projects/adoptahomeforwildlife/> (scroll down to Project Updates).

Lookout School on the lookout for plants with uses

On 27th January, Vernaire Bass and Jodey Peyton distributed 30 copies of the Montserrat National Trust's *Hidden Histories* Herbal Medicine Colouring Books to the Grades 5 & 6 students at the Lookout Primary School.

of the playing field, to provide shade for the pupils when out of the buildings.

The pupils looked forward to growing more vegetables and having fruit trees. Shade trees would make their playtimes more enjoyable. They were enthusiastic about the idea of having more animals and plants in their grounds, which they could watch and learn about. They were clearly aware that Montserrat had some very special plants and animals, such as the endemic pribby and Montserrat oriole. The students were keen to start growing their own plants. One of the students thought that they should develop their own botanic garden.

Project Officer Delmaude Ryan explained that initial surveys had identified native plants, such as Pribby and Sea Grape, which would survive well in the hot, dry environment of Lookout, and support increased biodiversity on the site. She also mentioned the issue of the invasive fire-ants present on the site, which



Above: young sea-grape plants from MNT nursery at WH02 (Belham River Mouth). Below: the famous pribby hedge at MNT Botanic Garden



As part of the project 200 copies of the booklets were distributed across Montserrat. The books have been very popular and so a further order has been placed with more arriving on island soon (see also page 17).

would need treating to make the field safe for the students. The importance of controlling invasive species was also explained.

One of the students spoke about the importance of water for the plants, and the animals that depend on them. She noted that this year (2022) had been a very dry year, and the plants had

Wildlife Home 08: Hibiscus Drive



(From left) Project Officer Ajhermae White, Mark and Kathryn discuss with Mike Pienkowski (All photos: Ann Pienkowski)

Wildlife Home 08 is the garden around the home of Mark Couch and Kathryn Kerge Couch. Kathryn and Mark had acquired the property when it was in quite a neglected state. They have done a lot of work in clearing the garden, and removing volcanic ash deposits to enable the garden to flourish. They like being Adopters because the surveys for the management plan gave them information about the types of native plants which would suit their situation, which plants and trees already in their garden they should keep, which should be removed or controlled, and what they should plant.

The plot is about 175m from the coast, and approximately 3700m² in size. The building is being restored and modified after falling into disrepair before being acquired by the current owners, and the Couches are keen to include restoration of the Wildlife Home too. It is now the only garden Wildlife Home of this type in the project, and is adjacent to another site on Hibiscus Drive, WH13 owned by Mr Norman Cassell and being developed as a cultural and wellness feature – we will describe it in a later issue.

WH08 is surrounded by coastal dry forest habitat, made up of shrubs, tall grasses and trees. On the northern side of the land, a waterway runs towards the eastern coast. This area to the north is owned by Montserrat National Trust and the mutual wildlife importance of these adjacent areas will be developed as the project continues.

The land slopes gently down from east to west. The land



Mark views their lawn and border vegetation, with the MNT land and the sea beyond.



Invasive Guinea grass, with more interesting native vegetation beyond

immediately surrounding the house is progressing to be a maintained lawn with a few fruit and ornamental trees on the eastern and southern sections of the site. The soil is infested with mole-crickets and fire-ants, whose treatment will form part of the plan.

On a tour of the garden, Ajhermae White, the lead project officer for this site, showed Kathryn and Mark some of the native plant species they already have, and some of the invasive plant species which need to be controlled. She also gave them advice about treatments for controlling the invasive fire ants.

The surrounding dry forest habitat hosts a variety of bird species including scaly-naped pigeon, grey kingbird and American kestrel. At the southern side of the house (at the time of the plant survey) grew medium-sized Guinea grass and herbs, like the tridax daisy which attracts different species of butterflies. A neglected plant patch on the north-western corner of the house grows pineapples and many wild herbs and weeds, such as the red tassleflower and the leaf-of-life plant. Two mature West Indian mahogany trees are on the property that provide shade for parts of the ground, while a few mature date palms line the eastern side of the land. Large Ixora shrubs attract the island's smallest bird, the Antillean-crested hummingbird.

The site contains the following micro habitats: soil; short grass less than 12cm; fallen rotting leaves (leaf litter); large stones, rocks, plant pots on soft ground.

And the following human-made structures: building (brick, wood, glass); brick or stone wall; paving; tarmac or concrete (e.g. pavement); plant pots or standing hard surfaces.

And the following vegetated areas: long grass over 12cm; planted flower bed, pots or window box; wild flower or weed patches; hedges; shrubs; trees; climbing plants.



Ajhermae, Mark and Kathryn warily view and discuss the invasive ants.



Leaf-of-life and white peacock butterfly



The intention now is to landscape the area in a way which is compatible with native wildlife.

The first step is to understand the ecology of the site through plant and invertebrate surveys. These form the basis for managing the site, so that it can combine with the tropical dry forest conditions that surround the land. This will ensure its resilience to a number of scenarios, *e.g.* further natural disasters, climate change *etc.* One of the most important elements of site surveys is gaining knowledge about the presence of non-native invasive species. If potentially damaging plant species are found, management actions will be undertaken including replacement with native species (propagated at the Montserrat National Trust's botanic garden). Changes on the land will be recorded each year throughout the project.

Overall, 90 species of plants were found on this site with a mix of native, introduced and invasive species. The data seem to suggest fewer number of invasive and introduced species covering more area than native species. Further statistical analysis may support this.

The site should be aiming towards restoring dry/mesic forest with medium/large tree dominated vegetation >5m tall.

This garden site shows a typical invertebrate fauna of a diverse garden. Ants are making the most of the disturbed areas of the garden, and scale-insects and other bugs are making the most of the garden and commercial plants present. Butterflies and pollinating flies are utilising the flowers present. Also, spiders and a woodlouse are using the buildings and leaf litter.

The vegetation has lower levels of scattered invasive plants, which, like the ants, are probably making the most of the disturbance. There is an abundance of introduced plants, probably due to earlier gardening, and these are mixed in with some native species. Restoring areas of native dry forest vegetation will see improved diversity in invertebrate groups and a reduction in some overly dominant groups, such as ants and scale-insects.

The land-owners are seeking advice on how to manage

the vegetated area of the site.

The objectives are to:

1. Identify and remove invasive, non-native species in the tropical dry forest and replace with native species that thrive in the conditions, either from the seed-bank or by planting saplings from the MNT nursery. Gum trees have already been planted. Other native species appropriate for planting at this site include:

- Spanish cedar *Cedrela odorata*
- Lignum vitae *Gaiacum officinale*
- West Indian mahogany *Swietenia mahagoni*
- Montserrat pribby *Rondeletia baxifolia*
- Pepper cinnamon *Canella winterana*
- Fiddlewood *Citharexylum fruticosum*
- Trumpet bush *Tecoma stans*
- White cedar *Tabebuia pallida*
- Birches *Myrcia splendens/ Eugenia spp*
- Barbados cherry *Malpighia emarginata*
- Sea grape *Coccoloba uvifera*
- Lantana
- Agave

2. Encourage more invertebrate fauna found in this habitat by providing suitable micro-habitats, *e.g.* allowing small patches of tridax daisies to grow to attract sulphur butterflies

3. Establish a prickly/spike hedge (*e.g.* plant agaves) on the southern side of the property to deter trespassers, .

4. Control invasive pests that are impacting the ground:
 a) control fire-ants by regularly using bait and insecticide such as Amdro and Ortho
 b) control mole crickets.

5. Make the pool-deck aesthetically pleasing, *e.g.* by planting native flowers in the planters, such as lantanas.

6. Control invasive plant species, *e.g.* by maintaining the lawn with *Zoysia* grass to prevent invasive grasses and weeds from growing (like the guinea grass and the little ironweed).

Kathryn and Mark are delighted to have mature mahogany trees on their plot, and hope that as the *Adopt a Home for Wildlife* project becomes more widely known, developers on other sites will work to keep existing mature trees and other native plants.

If you would like to see and hear more about this Wildlife Home, there are links to 2 videos (lasting 5 and 11 minutes) at <https://www.ukotcf.org.uk/key-projects/adoptahomeforwildlife/> (scroll down to Project Updates).



View from house over lawn, surrounding natural vegetation and the MNT land to the Caribbean Sea

Supplying some of the native plants for Wildlife Homes

The Montserrat National Trust Native Plant Nursery is providing plants for Wildlife Homes, and for sale to others interested in using native plants. Antwone Sinclair and Samantha Paul, the officers responsible for propagation and care of the plants, told us about their work in this video: <https://www.youtube.com/watch?v=gSPRZyI3w00>.



*Samantha Paul and Antwone Sinclair at MNT's Plant Nursery.
All images: Ann Pienkowski*

Antwone explained how they made compost for propagating the plants, and he and Samantha told us about the different plants they were growing, and how they fitted into a Wildlife Home site.

Plants for Wildlife Homes include:

- the native sea-grape, which grows in coastal and dry situations;
- native mahogany, which grows into a fine tree;
- native lantana, which is able to tolerate dry sunny situations, and is also good in planters;
- native pentas which have a lovely pink-white flower;
- the native broom palm;
- red birch;
- native white cedar, which also likes a sunny situation;
- native lignum vitae;
- the endemic pribby, which grows almost anywhere, and there is a fine hedge bordering the botanic garden. This is a very popular plant for adopters and others to plant.

Some introduced species which do not cause a problem are also grown. Some of these are important cultural and medicinal plants, like blue vervain, which features in the *Hidden Histories* project (see pages 13-17). The nursery also grows herbs, such as rosemary, thyme and tarragon, and coffee. Some attractive flowers, such as hibiscus, impatiense, shooting star (also known



Antwone at MNT's famous pribby hedge



Above: sea-grape seedling at top of steps with, on the floor, herbs at left and lantana centre.

Below: tall plants are pentas to left and hibiscus to right, with red lantanas lower in front



as Q-tips) are amongst other plants which, although introduced, are not a problem and are attractive to butterflies, bees and other pollinators.

The flamboyant tree, a popular introduced species, is also grown, but, as Antwone explained, it needs to be controlled carefully, as it can become invasive.



Above: blue vervain; below: broom palm



Wildlife Home 12: Cassava Ghaut



(From left) Project Officers Ajhermae White, Antwone Sinclair and Elvis Gerald, Project Leader Dr Mike Pienkowski, Gardener Ishmael Farrell, and site-owner Carol Osborne discuss plans. All photos except as indicated: Ann Pienkowski

Carol Osborne's Wildlife Home at Cassava Ghaut is on the edge of the mesic forest edge. The mesic forest typically consists of medium/large-tree-dominated vegetation more than 5m tall in mid elevations, with medium rainfall.

The forested ghauts (streams, usually in steep V-shaped valleys) in Montserrat are a discontinuous series of steep, forested streams that originate in the Centre Hills area. The Centre Hills and Northern Ghauts are proposed to be recognised as a Wetland of International Importance under the Ramsar Convention and as Key Biodiversity Areas. They provide continuous riparian fringe of forests and are an important ecological corridor between the coast, riparian forests and the forests of the Centre Hills.

The site is at the edge of the south-eastern boundary of the Centre Hills protected area. Forest birds often seen in this area include:

- Montserrat orioles, endemic to (found naturally only in) Montserrat, and listed as Vulnerable;
- threatened species endemic to few islands in the Lesser Antilles, with a sub-species endemic to Montserrat: forest thrush;
- presence of 8 species endemic to the Lesser Antilles: brown trembler, scaly-breasted thrasher, bridled quail-dove, Antillean crested hummingbird, purple-throated Carib, green-throated Carib, lesser Antillean bullfinch, Caribbean elaenia.

We would expect to see the presence of the endemic reptile species: Montserrat anole, Montserrat ameiva; and of endemic reptile subspecies: Southern Leeward dwarf gecko.

The *Adopt a Home for Wildlife* team were delighted to interview Carol Osborne, the site owner, and her gardener, Ishmael Farrell, on site to learn about their work and future aims for the site.

Carol explained that, before the site became a Wildlife Home, the area was completely forest with many alien species, with no open areas. As Ishmael started clearing the forest of non-native species, native species which would contribute to increased biodiversity were discovered, and these would not be disturbed. As the area was opened to sunlight, they were seeing a lot more wildlife, including the Montserrat oriole. So the aim was to create a forest clearing. Native trees such as lignum vitae and white cedar would be planted, as well as some others which would encourage wildlife, and provide fruit, both for wildlife and people.

Christmas-tree palms, with little red berries which the birds loved, had been planted. 30 of the endemic pribby plants, from

the Montserrat National Trust plant nursery, had been put in at the boundary of the site, which would eventually create a hedge. The existing mango tree, although not a native species, would be controlled so that it did not become invasive, but it would not be removed. Some other fruit trees and pineapples had also been planted, but these would also be controlled, as advised by the lead project officer for this site, Elvis Gerald. All actions were designed to add to the biodiversity of the area.

As part of the management of this Wildlife Home, several trees had to be removed or cut back as they were dead/dying and were considered to be at risk of falling in high winds. Ishmael, pictured next to one of the trees, shows the team here some of the resin still being excreted from the tree. He recalled that, when he was a child, this was used as an adhesive for sticking things into school books. This natural glue is one of many ecosystem



services; in this case a naturally occurring material which can be of benefit to humans.

The felled trees were going to be turned into charcoal, and intern Antwone Sinclair explained how the leaves and twigs were being turned into compost. Ajhermae White explained the importance of having native vegetation on the sides of the Ghaut, to prevent soil erosion and soil wash into the stream. Additionally, native trees provided good leaf litter to the stream, supporting micro-organisms and small water animals, essential components of the food web.

Some native trees already on the site, would be kept, of course. One of these is a fine large Spanish Oak, which Elvis Gerald explained was a native, although it would benefit from some careful pruning. Another native tree on the site, a gum tree, would also be kept.

Elvis Gerald demonstrated the problem caused by the invasive golden pothos vine which was killing mature trees, and explained that any removed pieces of vine needed to be burnt, as it was very aggressive, and could regenerate from the smallest piece.

If you would like to see and hear more about this Wildlife Home, there are links to 2 videos (lasting 9½ and 6 minutes) at <https://www.ukotcf.org.uk/key-projects/adoptahomeforwildlife/> (scroll down to Project Updates).

For this site, the aim is to restore a piece of mesic forest and forest clearing, to remove invasive species which are preventing native plants from establishing, and to provide a series of micro-habitats for invertebrates and other wildlife.

The site surveys were conducted during July 2022. Given the location on the edge of the dried ghaut and proximity to the Centre Hills protected area, the canopy layer is dominant with many native mature trees. The shrub layer is less pronounced,



Elvis explains the problem of invasive non-native vine, golden pothos.

but saplings in the ground layer were noted.

Overall, 82 plant species were found on this site with a mix of native, introduced and invasive species. The average percentage cover of the sample areas of invasive species was 7% of the ground layer; 7% of the shrub layer and 0% of the canopy.

The invertebrate surveys were conducted using methods developed for use by non-technically trained persons (Open Air Laboratories; OPAL) so that they could contribute towards scientific data collection, this approach often called citizen science. Early trials found that these surveys were best conducted early in the morning as these times were when many invertebrates were more active and easily recorded.

This mesic forest-edge site has an invertebrate fauna that would be expected with a forest site, for example high levels of leaf litter and so abundance of woodlice – plus high numbers of true bugs (Hemiptera), plant-feeding invertebrates which would be expected in a site with good vegetation coverage. There is also a high abundance of ants, common in a range of habitats including forests. However, if the ants are of invasive species, then they



Ajhermae discusses the importance of vegetation on the banks of the ghaut.

may be impacting on other invertebrates; this is because they are highly efficient predators and so can have a big impact on an area. Other invertebrate groups are present but not in high numbers, e.g. spiders, beetles, butterflies. Therefore, a reduction in invasive and introduced plants back towards native and endemic mesic-forest species would encourage a more diverse invertebrate fauna. Also, an increase in native invertebrate abundance may also lead to a natural suppression of ants (if they are invasive species) due a rebalance of ecosystem function.

The Project Team aims to assist Carol and Ishmael to:

1. Identify and remove invasive, non-native plant species in the mesic forest and replace with native species that thrive in the conditions, either from the seed-bank or by planting saplings from the MNT nursery. Aim is to reduce invasive species by 10% on the land by 2025. Other native species appropriate for planting at this site include:
 - Spanish cedar *Cedrela odorata*
 - Lignum vitae *Gaiacum officinale*
 - West Indian mahogany *Swietenia mahagoni*
 - Montserrat pribby *Rondeletia baxifolia*
 - Pepper cinnamon *Canella winterana*
 - Fiddlewood *Citharexylum fruticosum*
 - Trumpet bush *Tecoma stans*
 - White cedar *Tabebuia pallida*
 - Birches *Myrcia splendens/Eugenia* spp
 - Barbados cherry *Malpighia emarginata*
2. Encourage more invertebrate fauna found in this habitat by ensuring there is a leaf litter and shrub area typical of the habitat.
3. Investigate the area around the ghaut to ensure it is not blocked or being altered by presence of invasive species.
4. Look at suitable walkways to enjoy the area but to limit disturbance.



As invertebrate work additional to the standard surveys, Wolfgang, Jodey and Rebecca check the moth trap put up the evening before on the site. The lights for the trap are on a timer and, although they are designed to be attractive to moths and night creatures, their blue flashing appearance would have been at home in any nightclub in town. The lights were positioned in a way that would not impact the neighbours in the area. Wolfgang took some samples and will analyse these. The team helper for the day can be seen in the images. Photo: UKOTCF

Wildlife Home 05: EcoPlay



Part of the EcoPlay area adjacent to the Montserrat National Trust property

In 2021, the Montserrat National Trust became owners of a parcel of land adjacent to the Montserrat National Trust Botanic Garden, in the village of Salem. It is opposite the Montserrat Secondary school and is situated on the corner of a main road in a residential area. The area of the site is approximately 14000sq ft (about 1300 m²).

The site will be transformed throughout the project. The Montserrat National Trust has decided to dedicate the space as a place where members of the community, especially children and young people, as well as visitors could come and learn about biodiversity, ecosystem services and sustainability in a safe environment.

With the help of UKOTCF, the Trust secured the *pro bono* services of an architect to develop plans for the site, including

the building necessary to fulfil its functions. Developing and implementing a management plan for this Wildlife Home therefore provides an opportunity to provide a model of how to develop an approved building while maintaining – and striving to enhance – the native wildlife and its importance to biodiversity.

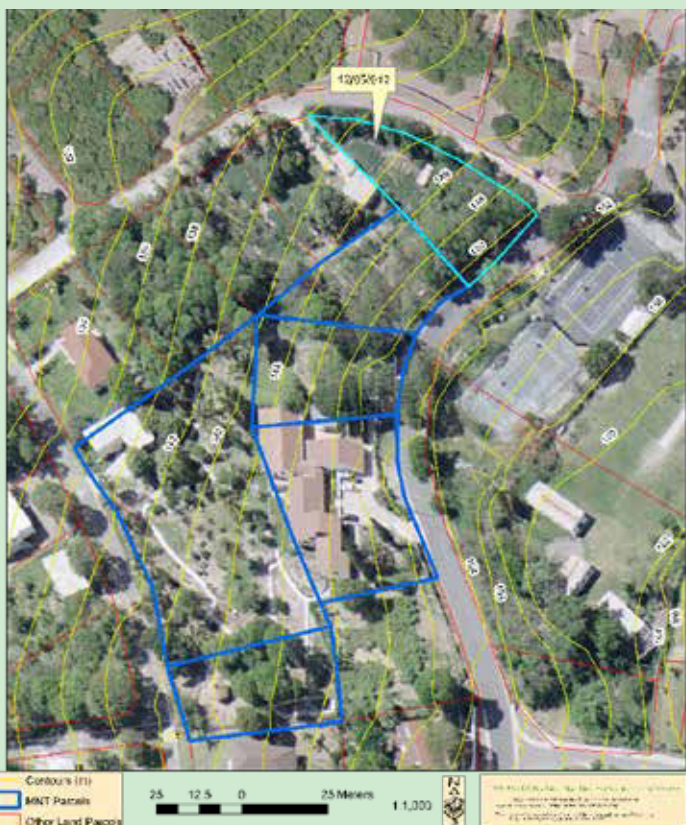
The north-western area of the site (as well as borders) will provide space for exploring nature and sustainability by areas dedicated to nature including growing endemic species as well as cultivating food and medicinal plants. The aim of this management plan is to ensure that key natural features are retained and enhanced, and integrated with the physical development of this environmental education facility.



Mrs Sarita Francis, Mrs Delmaude Ryan and Dr Mike Pienkowski at the EcoPlay site. Photo: Ann Pienkowski

In December 2022, Mike and Ann Pienkowski interviewed the Montserrat National Trust Executive Director, Mrs Sarita Francis, the project officer for the EcoPlay site, Mrs Delmaude Ryan, and the outreach and communications officer, Ms Vernaire Bass, for an update on plans and progress at this site.

The interview included information about special aspects of the site, such as near the south-eastern boundary where there are rows of established trees including birch trees, which shelter the site but are also being utilised as nesting and foraging sites for the endemic stingless bottle-bee *Melponia variegatipes lautipes* (photos below, Catherine Wensink), and a tour of the Creole garden, adjacent to the EcoPlay site, where Monty’s Messengers had been doing some practical planting. The aim of this exercise



Parcel of land (light blue border) owned by the Montserrat National Trust (Map produced by GIS Department)





Above: Vernaire Bass explains Monty's Messengers' plantings.
Below: Sarita Francis describes some of the traditional foods, here sorrel, in the Creole Garden. Photos: Ann Pienkowski



was to demonstrate that vegetables have to be planted, they don't just appear on supermarket shelves. Before the planting, they were told about seed germination, so they became aware of the process from beginning to end. The EcoPlay site will be a home for Monty's Messengers.

Already the site is being used to raise awareness of biodiversity, such as being the venue for a very popular bioblitz. Areas of the site are being left unmown, to encourage insect life. The adjacent Creole Garden is certainly benefitting from the large numbers of pollinators that the EcoPlay area hosts. Development of the site is being carefully considered, so that the construction work keeps as much of the existing vegetation as possible. Where important vegetation needs to be removed, seeds will be collected and cuttings taken, to be propagated in the Montserrat National Trust plant nursery, and replanted later. This careful development would hopefully provide a model for other building developments.

A key aspect of the EcoPlay project is it has been designed to be self-sustainable. The Montserrat National Trust is about 90% solar powered at present, and the EcoPlay centre will follow that.

The site can be categorised as anthropogenic, given that it is likely to have been modified as housing or an area which has been used for cultivation.

It has a variety of microhabitats, including soil, grasses less than 12cm, rotten fallen leaves, and large stones. It contained paving, fencing and some garbage. Parts of the site have long grass over 12cm, wild flowers, shrubs, trees, climbing plants. It is near man-made structures, e.g. buildings, roads.

A first step is to understand the ecology of the site through plant and invertebrate surveys and in what quantities. This information will be used to manage the site so it provides habitat for Montserrat's biodiversity particularly its native plants and insect pollinators.

At this particular site, the surveys have indicated quite a rich fauna and flora at the site already. It will be important to

incorporate these into the site to ensure that they are not removed or damaged when any works commence.

The site surveys were conducted during the period March- July 2022 with several repeat visits. Overall, 23 plant species were found on this site with a mix of native, introduced and invasive species. The average percentage cover of the sample areas of invasive species was 7% of the ground vegetation layer; 27% of the shrub layer and 3% of the canopy.

There were a good number of bees recorded on site, plus some butterflies/moths, indicating there is a good level of nectar-rich plants. The survey showed that the black birch *Myrcianthes fragrans* was very important for bees on this site. Ideally any native planting should include some nectar-rich shrub and tree species to continue to support pollinator species.

Currently there are a number of invasive trees and shrubs present; there should be an attempt to remove these invasive species and replace them with native trees and shrubs. This will also increase the presence of other invertebrate groups such as beetles and bugs, and help to improve ecosystem balance as a high number of ants were recorded.

The management objectives are:

1. Identify species: ensure that those which remain important are not felled when building is constructed, and add to these. Trees which would do well on the site include:
 - Spanish cedar *Cedrela odorata*
 - Lignum vitae *Gaiacum officinale*
 - West Indian mahogany *Swietenia mahagoni*
 - Montserrat pribby *Rondeletia baxifolia*
 - Pepper cinnamon *Canella winterana*
 - Fiddlewood *Citharexylum fruticosum*
 - Trumpet bush *Tecoma stans*
 - White cedar *Tabebuia pallida*
 - Birches *Myrcia splendens/Eugenia* spp
 - Barbados cherry *Malpighia emarginata*
 - Sea grape *Coccoloba uvifera*
2. Encourage more invertebrate fauna found in this habitat, paying particular attention to the boundaries of the property given the building which will take place.
3. Ensure that the plans for EcoPlay are implemented in a way which is compatible with the management plan.

If you would like to see and hear more about this Wildlife Home, there are links to 3 videos (lasting 11½, 6 and 10½ minutes) at <https://www.ukotcf.org.uk/key-projects/adoptahomeforwildlife/> (scroll down to Project Updates).

Donations to fund the EcoPlay building (architect's preview below) are going well but more is needed. UKOTCF continues to assist by providing a route for donations. Whilst donations from Montserrat can be paid directly to MNT, this is difficult for payments from overseas. Accordingly these can be made via UKOTCF's website, where contributions can still be received via PayPal at <https://www.ukotcf.org.uk/eco-play-montserrat/>.



Videos from the pilot study of Adopt a Home for Wildlife

The *Adopt a Home for Wildlife* project arose from an earlier 2-year project in 2016-18. In the first year of that project, we identified what we now call Wildlife Homes as an approach to address some of the key challenges and opportunities of conservation in Montserrat. In the second year, we tested this successfully on a small number of pilot sites with our first Adopters. Three of those first sites stayed with us during the following three years while we tried to secure funding to employ local project officers, key to continuing. They became Wildlife

Homes 01 (Garibald Hills), 02 (Belham River Mouth) and 03 (Cork Hill) in the continued new phase of the project.

There are a number of videos about these (and a few other pilot sites) from the first phase still available. There are links to these at: <https://www.ukotcf.org.uk/key-projects/sos-montserrat/>. We shall soon be adding new videos on these sites, but meanwhile enjoy these videos of those who helped get the work started. (See also page 17.)



Dwayne Hixon looks at migrant shorebirds attracted to the shallow wetland he recreated at Belham River Mouth (now Wildlife Home 02), replacing rare habitat lost by volcanic action and inappropriate human development. From one of the videos noted above. Images: Ann Pienkowski

SOS Nature of Montserrat team

In previous *Newsletters*, we introduced many of the local and visiting members of the projects. Here we give brief profiles of some of the scientific specialists contributing to the work.



Leigh Morris will be visiting Montserrat in May 2023 as a volunteer part of the *Adopt a Home for Wildlife* project. He will be working with partners in the project, the Department of Agriculture, Adopters and others to strengthen the botanic gardens and horticultural techniques.

Leigh Morris became CEO of Manx Wildlife Trust in the Crown Dependency of the Isle of Man in January 2020. He is a member of the UKOTCF European Territories Working Group and the Inter Island Environment Meeting (IEM) partnership, and recently joined UKOTCF's Council.

Leigh's career began in horticulture, gaining qualifications in commercial crop production and an MSc in International Horticulture. He managed plant nurseries, before becoming a lecturer and subsequently a Division Head at the Welsh College of Horticulture. He joined the Royal Botanic Garden Edinburgh (RBGE) in 2004, as Head of the School of Horticulture, becoming Associate Director of Horticulture. His role included international botanic garden development and capacity building in several countries including a prolonged period in Oman. He also completed a short-term placement for Voluntary Service Overseas (VSO), delivering training to Ethiopian farmers. Leigh chaired the Grow Careers initiative, and served as President of the Chartered Institute of Horticulture, a period when they were

awarded Royal Charter.

Inspired at RBGE, Leigh's career developed a wider conservation focus, becoming a Trustee of the UK Marine Conservation Society, and Director of Community Conservation at the Royal Zoological Society of Scotland, and was the first CEO of the National Land Based College.

Leigh spent 2 years (2018-19) on the UKOT of St Helena, delivering a training needs analysis of the island's agriculture for the St Helena Government and a subsequent up-skilling programme. Leigh helped guide the establishment of the Marine Team in the St Helena National Trust, and joined their Council as Vice-President. Leigh additionally undertook consultancy on both St Helena and Ascension Islands, supporting the waste management plan on Ascension, reviewing their hydroponic farm, and developing proposals to enhance recycling on St Helena. A keen scuba diver in his spare time, Leigh volunteered as a diver for the SHG on their annual reef surveys and a Darwin Project on lobsters.

On the next page, we introduce three team members who visited Montserrat for the first time in January 2023.

Jodey Peyton is the leader of the *From Blue Iguana to Blue Vervain* project, running from January 2022 to March 2023. She says:

“I am an ecologist (with a passion for plants), undertaking a part-time PhD, on invasive non-native species (INNS), with the UK Centre for Ecology & Hydrology (UKCEH) and the University of Sussex. I am also a Fellow of UKCEH, where until recently, I was leading projects on INNS. During my time at UKCEH, I have been incredibly lucky to visit some of the UKOTs to work with the wonderful communities, undertaking expert-elicitation exercises on INNS. My passion is linking people and nature and looking for opportunities to bring people together to look for solutions to conservation challenges. This passion has brought me to my new role at the International Institute for Applied Systems Analysis in Austria as an External Relations Officer.

“I have been very proud to lead an incredible and passionate interdisciplinary team during a 15-month Arts & Humanities Research Council and Natural Environment Research Council project with fabulous colleagues on Montserrat and Cayman, Belgium and the UK: *From Blue Iguanas to Blue Vervain* (<https://www.ukotcf.org.uk/key-projects/blue-iguanas-to-blue-vervain/>). For this project, the European part of the team were able to visit both Montserrat and Cayman to work with our colleagues on their case studies. I have learned such an enormous amount during this project from our wonderful team, such as the many medicinal plants and their uses in Montserrat and Cayman and the incredible human effort that has led to the conservation success of Blue Iguanas. This project has also introduced me to the world of museum curation and further confirmed how important the materials held in museums and herbaria can be for conservation and how we can use data science to uncover hidden networks of people and species interactions. This wonderful project is one of the many demonstrations of how much skill and knowledge is on the UKOTs and how this leads to incredible conservation success.”



Jodey (right) with Sarita Francis and the booklets resulting from the project.

Wolfgang Rabitsch writes:

“I am an entomologist working in the science-policy-interface on nature conservation topics such as invasive non-native species (INNS) and biological invasions, climate change, biogeography and biodiversity. I work in the Department of Biodiversity & Nature Conservation at the Environment Agency Austria in Vienna and as a private consultant. Over the years, I have contributed to several non-native species projects (e.g. DAISIE, NOBANIS, EASIN), including work on the UKOTs (e.g. IAS-Horizon Scanning and Management prioritization), the development of INNS-risk assessment methods (e.g. GABLIS, EICAT, SEICAT), creating inventories of non-native species, the application of biodiversity indicators (e.g. SEBI2010), national EU reporting obligations (e.g. Habitat Directive, Invasive Alien Species Regulation), and the Austrian Biodiversity Strategies 2020+ and 2030. Most of my current professional work is related to the implementation of the EU-Invasive Alien Species Regulation 1143/2014.



“I have an inordinate fondness of Heteroptera, or true bugs, clearly the most beautiful of all insects! I love being outdoors looking for them and identifying them. A current focus of my passion is the development of a Red List of endangered Heteroptera for Austria.

“Visiting Montserrat this year, and knowing that so little is documented regarding the diversity of Heteroptera on the island, gave me the unique opportunity and joy to search for species in different aquatic and terrestrial habitats. I used sweep nets and beating trays for species living on herbs and trees, a suction sampler for species living on the soil surface, a water net for the aquatic bugs, and a light trap for the night-active species. Identification of all samples is the challenge now, but this work will increase the number of known Heteroptera species of the island. I very much hope to have the opportunity to return and continue with the sampling, using other methods and visiting more locations on beautiful Montserrat.”

Rebecca Machin writes:

I am a natural sciences curator at Leeds Museums and Galleries, looking after and sharing natural heritage from the UK and around the world. I care for a collection of around 800,000 specimens, including rocks and fossils, plants, and animals, including shells, insects, microscope slides and skulls. I am particularly interested in the importance of natural science collections in discussions of decolonisation and repatriation in the museum sector. Being part of the *Hidden Histories* project has been a fantastic experience, and has taught me more about the importance of museum collections in the UK Overseas Territories, and how these can be developed in the future. I enjoy working with the public, and using natural science collections to help them engage with the natural world, improve their wellbeing and help conserve biodiversity.



Rebecca (right) with ‘Grandma’

(continued on next page)

I am in the final year of my PhD on the history of captive gorillas in colonial Africa, and I have also written about the representation of gender and sexuality in natural science collections. Despite working with dead animals and plants for most of my career, I prefer living things, and it has been lovely to work alongside

ecologists and in the field during the *Hidden Histories* project! It was wonderful to learn about Montserrat's biodiversity from the Montserrat National Trust and government staff who we worked with during our visit."

Monty's Messengers take a trip down to the river



It was a mild Saturday in January when staff from the Montserrat National Trust, UKOTCF, UKCEH, Leeds Museums and Galleries, helpers and parents accompanied a group of Monty's Messengers down to a quiet spot at Nantes River.

The MNT team made three preparatory visits in order to ensure that it was safe and appropriate for a walk in and around the area. The area was chosen because there were some key features that could be shown to the children.

After the rains, the river had water in it, which was a good start! There was some plastic rubbish in the river, which meant we could show the children where some of the dumped rubbish nearby had ended up. The river had a bridge crossing it, which would have been the main route for lime producers to get to the processing plant many years ago. The forest habitat around the river was ideal for showing some of the native species and there were just enough rocks and uneven surfaces for the children to get an understanding of sensible walking and adjusting movement for the terrain.

When the children arrived at the Trust conference room, where briefings usually take place, they were given an introduction by Outreach Officer Vernaire Bass. Vernaire had been busy the previous week working with new volunteers at the Trust, as well as some of the older children on safeguarding and developing a policy to ensure that all those attending Monty's have a safe space to learn and enjoy the natural environment.

After this, the bus was packed with 23 eager young ones (and about 10 adults) ready to go. When we arrived, the groups were split into three. The first group would stay at the roadside and test out some of the equipment entomologist Wolfgang Rabitsch had brought along.

Wolfgang is originally from Austria. He brought along his adapted leaf blower (which was put in reverse) to catch insects at some of the *Adopt a Home for Wildlife* sites across Montserrat to gain more information about what insects are found and where. Wolfgang's other equipment included a white sheet and two sticks which he used to beat the vegetation to see what lands on the sheet (see photo on page 16). Most of the things moving after this are ants! Another was a sweep net which he used to sweep across the vegetation at waist height. He joked that you can pay hundreds of dollars (well Euros in his case) for modern pieces of survey equipment, but sometimes the most simple ones are the best. The intrepid Monty's had a go at using the equipment and looking at them in closer detail.

Rebecca, a natural history curator from Leeds Museums and Galleries, took one of the groups on a collecting walk. Armed with a reusable bag, some labels and pencils, the children were



Above: Rebecca and the collectors
Below: the importance of labelling





Above: Down by river: Jodey, Ajhermae and Catherine with some of Monty's Messengers and parents.

Below: Catherine and Monty's sort freshwater invertebrates.



Above: Mappi and some of the team on a forest track

Below: Back in the laboratory (aka MNT's meeting room), examining specimens using a projector microscope.



first time some of the children (and adults) had seen one, so we thought a job well done.

encouraged to look for fallen leaves, cones, and other items on the ground. The purpose was to get them to collect something and then to document what, when, where and who collected it on a label.

Jodey (UKCEH) and Catherine (UKOTCF) took the children down to the river. Delmaude Ryan from the Trust was keeping a careful lookout. Ajhermae White, with waders on, came prepared with trays, nets and collection jars so that we could take a closer look at any freshwater invertebrates we found.

In one of the pre-visits, Mappi from the Trust, had told us that he wanted the children to experience some time by the river as he had as a child. He would spend whole weekends with his friends catching crayfish and snacking on the trees around it. We did find a crayfish, but it was very small. However, this was the

More on the collaboration between *Adopt a Home for Wildlife* and *Hidden Histories* projects

It has long been UKOTCF's experience that projects overlapping in time and subject make the individual projects even more cost-effective. This is for several reasons, including economies of scale, pulling together more expertise in a range of topics, and the fact that grants never cover the real full costs, leaving projects to depend also on huge amounts of time donated by skilled persons.

For the 15 months January 2022 to March 2023, the *Hidden Histories* project *From Blue Iguana to Blue Vervain* (including partners from Cayman, Montserrat, Belgium and the UK) has been operating in Montserrat (and also the Cayman Islands) alongside *Adopt a Home for Wildlife* (which continues). The outputs from the *Hidden Histories* project (funded jointly by the UK Research Institute's Natural Environment Research Council (NERC) and Arts and Humanities Research Council (AHRC)

were recently reviewed and we repeat that list here. There are several work packages as part of this project, with UKOTCF involved in all.

WP1: Knowledge of the human-environment interplay on the UKOTs (Case Study 1: Medicinal plants and biodiversity of Montserrat; & Case Study; 2: Invasive species of the Cayman Islands)

Under WP 1, Case study 1, the following was achieved by the project's end in March 2023:

Under WP 1, Case study 1, the following was achieved between April 2022 and the project's end in March 2023:

1. Completion of colouring and activity guides, available online and as printed materials, for children on medicinal plants
2. Completion of booklet, available online and as printed materials, for adults on medicinal plants
3. Monty's Messengers session on natural history collections and invertebrate sampling attended by 23 children (aged 4-14)
4. Launch of medicinal plants booklets at Montserrat Museum (attended by >30 people including Minister of Agriculture, Lands, Housing & Environment and Minister of Communications).
5. Six radio interviews to promote project.
6. Three meetings during visit regarding developing the Montserrat Museum
7. Training sessions led by Leeds Museum and Galleries on online training resources and using Google Arts & Culture (attended by 8 persons)
8. Oral Histories training to at least 10 persons on Montserrat, with a follow-up advanced training on Oral History collecting (attended by 5 persons)
9. UK team lead Monty's Messengers wildlife session at Nantes River.
10. Pilot Bioblitz event at Montserrat Botanic Garden with over 20+ participants.
11. More records added to iNaturalist page – there are now over 2,500 records of 866 species, generated for Montserrat – this platform is being used to help document and learn about the biodiversity of Montserrat. The project team are the top 5 recorders.
12. Successful funding application to the IPT Biodiversity Challenge Fund from Montserrat National Trust, with support from Meise Botanic Garden and Royal Botanic Gardens, Kew for setting up a herbarium collection in Montserrat. (Total grant amount secured \$10k).
13. Successful funding application to Defra Darwin Plus (DPLUS192) from Montserrat National Trust, UKOTCF, Leeds Museums and Galleries and UKCEH for project: Delivering biodiversity and human well-being gains for Montserrat's sustainable development (Total grant amount secured £485,986).

Under WP 1, Case study 2, the following was achieved by March:

1. Training in Oral Histories equipment was undertaken by the Leeds Museums and Galleries team, particularly on the impact of the green iguanas on local ecology.
2. A bioblitz event held at the MNT Botanic Garden with partners and representatives from the Meise Botanic Garden.



Jodey Peyton (left) and Wolfgang Rabitsch collect insects as part of the work in support of Monty's Messengers and biological surveys.

3. A workshop on perception of invasive and endemic iguana species on the Cayman Islands was held on 6th December 2022. The workshop led key informants through a series of discussion questions around their views and perceptions of endemic blue and invasive green iguanas.
4. Workshop report was published.
5. Completion of colouring guides for Cayman Islands available online and as printed materials
6. Additional biological records made for the Cayman Islands via iNaturalist
7. Training arranged for Luke Harding at Iguana Conference in Gephy held in January 2023. This programme helps users to generate interaction maps.

Other WP1 Outputs included:

1. Draft of *The environmental consequences of colonialism, case studies from islands and the UK Overseas Territories* was shared with co-authors in January 2023
2. Draft of a data paper on iguana interactions
3. Draft of a paper that characterises collections and collectors of the island's biodiversity.

WP2: Develop best practice template for equitable biodiversity, ecological and biological research collaboration and data sharing between the UKOTs and UK – developing a Framework of best practice for environmental research and conservation for the UKOTs

Under WP2: Following several wide rounds of consultations (involving all inhabited UKOTs) on drafts, the Framework was endorsed at a practitioner workshop in July (with 9 UKOTs represented – well over half those not administered by UK Government appointees).

4. The UKOT/CD Environment Ministers' Council meeting

in October formally encouraged all others to adopt the Framework.

5. Article was published in December in Ecos: <https://www.ecos.org.uk/ecos-43-3-2-1-the-uk-overseas-territories-moving-away-from-colonialism-in-the-environment/> looking at the relationship between the UK and UKOTs with respect to conservation.
6. Paper drafted on methods and background to drafting framework of best practice.

WP3: Mapping the representation of UKOTs data and materials in overseas collections. Methods to share data equitably to informing research and nature conservation

Under WP3:

1. Poster created representing articles held for the Cayman Islands and Montserrat
2. Google Arts & Culture page created for the Cayman Islands.
3. Catalogue of collections from the UKOTs that are held around the world, uploaded to UKOTCF website see: <https://www.ukotcf.org.uk/key-projects/blue-iguanas-to-blue-vervain/>

The project has certainly strengthened many relationships and is leading to a lot of follow-up work. A final project meeting took place at the end of March via Zoom and was attended by more than 25 persons.

Book launch

The launch of the *Hidden Histories* Herbal Medicine Booklet and Children’s Colouring & Puzzle Book took place on 26th January at the National Museum. As part of the opening ceremony, Mrs Sarita Francis presented Environment Minister Crenston Buffonge with a copy of the book (*below, photo: MNT*).



Some local vendors were invited to sell their products, some of which included some of the plants described in the booklet.

The full launch event can be seen at: <https://m.youtube.com/watch?v=j-BKg89jzP0&mbixextid=Zxz2cZ>.

MNT thanked the following persons for contributing to the herbal medicine booklets.

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CONTRIBUTORS

Eleanor Silcott, Ellen Lindsey, Daniel James, John “Cannon” Fenton, Vereen Woolcock, Philemon “Mappie” Murrain, Cynthia White - Manager of Golden Years

MONTSERRAT TEAM

Alecia Allison, Antwone Sinclair, Anya Jeffers, Dr Clarice Barnes, Danny Joseph, Delmaude Ryan, Eulyn Silcott Greaves, Gracelyn Cassell, Jaedon Buffonge, Jo-Diaz Tye, Sarita Francis, Mary Blake, Orettha Greenaway, Samantha Paul, Shamal Peters, Taeshawn Greensword, Vernaire Bass, Victor Brown

UK AND BELGIUM TEAMS

Alan Gray, Catherine Wensink, Erin Hussey, Jodey Peyton, Quentin Groom, Rebecca Machin, Simon Norman, Sophie Meeus and Dr Mike Pienkowski

Opposite: left column: cover and two example pages from book for adults; right: corresponding pages from kids’ book.

This was followed up with an appearance on the Montserrat National Trust Heritage show with MNT Outreach Officer, Vernaire Bass, interviewing two of the vendors, Ms Julia Maria Pozo and Ms Evelyn Searles on “Turning your passion into profit”: <https://fb.watch/jyJgEkp6z9/>.



Belham River Mouth ponds (WH02) – every visit something new

The visiting teams from the UK and Austria in December 2022 and January 2023 made several visits to the ponds at Belham River Mouth (Wildlife Home 02; see page 12). Wolfgang found lots of true bugs; those comprising groups such as the cicadas, aphids, planthoppers, leafhoppers, assassin bugs, bed bugs, and shield bugs.



The heavy rains in January made the levels of freshwater quite high around the roadside and the bridge area. These were teaming with what they thought were cane toad spawn (see image opposite; photo: UKOTCF).

Whether cane toad management is a priority for Montserrat remains to be seen, however, Kaysie Ryan and POs, including Delmaude, attended a webinar (co-organised by UKOTCF) on cane toads in March. Prof. Dr. Richard Shine, a renowned expert

in the field of invasive species management and the control of cane toads provided a key note speech. He shared knowledge and insights on the impact of cane toads on local ecosystems and the latest strategies and techniques for controlling their spread.

When asked, Rick said that with more heavy, frequent rains there are likely to be more cane toads as they need freshwater and are able to reproduce quickly. What impact they are having on Montserrat is unknown. There were some interesting facts about cane toads that any management of them could be informed by. The recording of the webinar is available here: <https://www.ukotcf.org.uk/other-territory-support/seminars-training/webinar-invasive-species/>



Success as partners from *Adopt a Home for Wildlife* and *Blue Vervain* strike again!

A proposal in partnership with the Montserrat National Trust, UKOTCF and the UK Centre for Ecology and Hydrology (UKCEH) was developed throughout 2022 going through two rounds of applications. The project has been successful and will be supported by the UK Government's Darwin Plus fund. It is titled *Delivering biodiversity and human well-being gains for Montserrat's sustainable development*. It builds on current and earlier projects, including *Adopt a Home for Wildlife*, and ideas generated with the team on Montserrat and other newer partners, e.g. UKCEH, Leeds Museums and Galleries and Meise Botanic Gardens. The project will commence in April 2023 and will

finish in March 2026. It aims to (1) bring together voices that may not otherwise feed into public consultations; (2) create a biodiversity and human-well-being toolkit for the community, physical planners and developers; (3) monitor and evaluate outcomes for biodiversity and human well-being; (4) share outcomes with other UKOTs via existing knowledge-sharing networks.

The team is eager to get started on the project and this newsletter will continue to give updates periodically. If you would like to know more about the project please get in touch with the Trust or with UKOTCF's Catherine Wensink cwensink@ukotcf.org.

The current phase of *Adopt a Home for Wildlife* project (DPLUS155 *Securing Montserrat's threatened endemic species and natural capital through community-action*) is 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:

