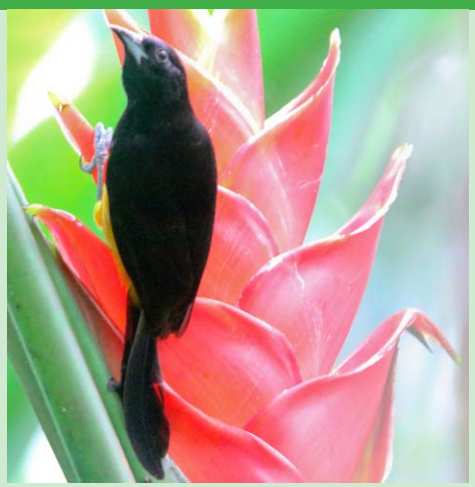
Saving Our Special Nature of Montserrat

Newsletter 2, October 2016



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

Foreword

Welcome to the second issue of the newsletter about the new project entitled "Maximising long-term survival prospects of Montserrat's endemic species and ecosystem-services." This is a good and reasonably concise title for technical use - but is a bit of a mouth-full for everyday use. So we thought that, for the latter, we might try something shorter - but meaning much the same thing, as well as trying to capture also the wider aspects. You see it above. It has not skipped our notice that it does lend itself to an abbreviation relevant to the urgency and importance of the matter: *SOS Nature of Montserrat.*

We are very grateful for the many kind and encouraging comments from people welcoming the first newsletter. We hope that you enjoy this one too. In it, we highlight the start of local projects and invite wide participation. We look forward also to the second intensive period of work in late November and early December when again visiting experts will work alongside local people. We touch on some of the project work going on all of the time in Montserrat, UK and elsewhere. We continue to profile more of the partner organisations and members of the joint team, as well as some of Montserrat's special wildlife.

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 cwensink@ukotcf.org.

For more information on the project, the main contacts are:

Dr Mike Pienkowski & Catherine Wensink, UK Overseas Territories Conservation Forum: m@pienkowski.org cwensink@ukotcf.org . See also www.ukotcf.org

Nicolas Tirard & Mrs Sarita Francis, Montserrat National Trust: nicolas.tirard@gmail.com mnatrust@candw.ms

Adopt a Home for Wildlife

- an important part of this project that will continue after the project ends

What is *Adopt a Home for Wildlife in Montserrat*?

The Montserrat National Trust (MNT) aims to conserve and enhance the beauty of Montserrat; preserve the fauna and flora of Montserrat; make the public aware of the value and beauty of the island's heritage; pursue a policy of preservation and act in an advisory capacity.

MNT is looking for partners in the community to lend a hand in keeping our island beautiful, clean and full of unique wildlife and habitats.

MNT is grateful for the support of UK Overseas Territories Conservation Forum, the Darwin Plus fund and the other

Marguerita Bay, context of one of the first sites for adoption. The seabird colonies of Pinnacle Rock and adjacent cliffs are at the far right, with the mouth of the valley with wetlands at the left, viewed from Lookout.

All photos in this section and the next by Nicolas Tirard

Mating damselflies Protoneura romanae *at Runaway Ghaut*

partners in the present project in setting up this programme.

The *Adopt a Home for Wildlife in Montserrat* programme allows individuals, organisations, community groups and businesses to agree to maintain and protect a public space for a year at a time, with renewals annually. The programme runs all year round, and gives you the opportunity to make a difference in your local area.

Why *Adopt a Home for Wildlife*?

Montserrat is a special island with much to celebrate. Montserratians are renowned for our welcome and hospitality. We are connected to our island's environment as we depend on it for so much, e.g. the water from the Centre Hills, and the natural remedies from our plants. Some areas, which are so important to our way of life, are under threat because of the actions of a few: for example, dumping of rubbish, which stops the flow of the streams after heavy rains and attracts flies and mosquitoes. This programme gives us a chance to put these things right by caring for our island and showing others that we appreciate what makes us so special.

In addition:

- Adopting an area promotes a cleaner, more liveable neighbourhood and gives YOU an active role.
- You can give your group/business/family positive attention for the valuable service you provide.
- You help Montserrat, your island, by volunteering to clean up and maintain its uniqueness.

Who can *Adopt a Home for Wildlife* in Montserrat?

- Individuals
- Organisations
- Community Groups
- Local/International Businesses
- Families
- Combinations of any of these

Programme Requirements

- Nominate or select an area in consultation with Montserrat National Trust Project Officer, Nicolas Tirard (and bear in mind ownership considerations).
- Adopting individuals/ organisations/ community-groups/ businesses are required to complete an application nominating the area they wish to adopt. These can be obtained from the Trust office.
- Adopters maintain their area for at least one year and, ideally, much longer.
- Adopters provide regular updates to the Montserrat National Trust on the site.
- After one year, the Montserrat National Trust will (subject to external constraints) erect a sign at the area, recognising your work and commitment.
- If the individual/organisation/community group/business are unable to keep their adoption commitment, their spot is then eligible for someone else to adopt (subject, of course, to ownership considerations).

Which areas are available for adoption?

There are many areas across the island. These are outlined in the latest list of sites. MNT Project Officer, Nicolas Tirard, can help you or your group to select an area. MNT will advise on the best ways to care for it.

Montserrat National Trust responsibilities :

- Provide a plan for the Adopters to follow
- Provide some basic materials
- Assistance with some operations
- Provide native plants, where applicable
- Provide advice on caring for your space
- Create a sign recognising your group's commitment after one year.

Safety considerations

You are responsible for your own safety. If you are working on your own, please inform others of where you will be. Groups are advised to review safety before undertaking their work.

- Use caution when picking up debris
- Wear gloves
- Use caution when cutting back vegetation - please seek advice on identifying which plants should be removed/cut back/planted.
- Be aware that mosquitoes/wasps and other insects may be found in some areas.
- Carry a cell phone for emergencies
- Bring plenty of water and snacks
- Avoid midday working
- Wear a hat in exposed areas
- Work on clear days and in daylight hours
- Dress appropriately. Wear long trousers, long sleeves, hat, and boots / good hard-soled shoes - do not wear sandals.
- Wear bright-coloured or high-visibility clothing when working on roadways

For further information

Please stop by the National Trust Office at the Botanic Gardens on weekdays (excluding Wednesday) or email Nicolas at nicolas.tirard@gmail.com

Adopt a Home for Wildlife - outline of the first sites to be launched

1 RUNAWAY GHAUT

1.1 WHY IS IT IMPORTANT?

1.1.1 An easy access to the Centre Hills

Runaway Ghaut is the only place offering a direct access to the forest reserve from the main road. It offers the possibility for visitors and residents to discover and enjoy this special ecosystem easily, while having a family picnic or a lunch break.

1.1.2 A fragile and valuable ecosystem

The site is important for several endemic and patrimonial species, and is one of the few documented historical locations for the critically endangered galliwasp and mountain chicken.

1.2 WHAT ARE THE PROBLEMS?

1.2.1 Pollution

As the site is located on the main road, a lot of garbage is disposed of in the ghaut by people passing by. Because of the proximity of the Montserrat Secondary School, a lot of students throw away bottles or lunch boxes in the forest around the ghaut. This is mainly an education issue.

Those wastes provide a nesting ground for mosquitoes, causing health issues, and favour the proliferation of rats, threatening the wildlife.

1.2.2 Invasives species

Several plant and animal species have been introduced and represent a threat to the native fauna and flora, as they tend to replace or eliminate them.

1.2.3 Habitat destruction

During the road works in 2012, a lot of material was dumped in the downstream part of the ghaut. This might have destroyed some of this fragile ecosystem.

The amount of water flowing down the ghaut is greatly reduced by the fact that there is a water-capture area in the forest to supply water to residents. The aquatic ecosystem is therefore only relict.

Dry, concreted stream-bed of Runaway Ghaut

1.3 WHAT IS THE PROJECT GOING TO DO?

1.3.1 Control human pollution

Having volunteers, including students from the MSS to remove the existing waste during one or several “cleaning days”.

Provide recommendations for the construction of a protected bin, so that people have a possibility to throw away stuff without damaging the environment or feeding rat populations.

1.3.2 Tackling invasive plants

The adopter will be given recommendations and training as to which species are OK to plant, and which ones should be removed in order to keep healthy populations of native species.

1.3.3 Restoring habitats

Negotiation will be initiated with the Montserrat Water Authority to evaluate the feasibility of an increase in the flow of water going down the ghaut, in order to restore a functioning aquatic ecosystem.

1.3.4 Botanical trail, education area

The feasibility of displaying interpretative signs in the picnic area will be assessed. Those signs would provide explanation about the ecosystem and the plant and animal species living in it.

1.4 WHAT THE PROJECT HOPES TO ACHIEVE

Create a welcoming environment where visitors and residents can spend quality time while discovering a functioning ecosystem without damaging it.

Create a sense of community and pride amongst the volunteers involved in the conservation and restoration of the site.

Educate the students of MSS, to make them understand the richness and the vulnerability of their environment.

2 MARGUERITA BAY

2.1 WHY IS IT IMPORTANT?

2.1.1 A recreational area for Lookout Village

The Lookout area is a new, densely populated area, and the Physical Development Plan assessed that it needs more recreational area. Getting the local community involved in the conservation and beautification of the site would be an element towards completion of this goal.

2.1.2 A high value ecosystem

Since the filling of Piper’s Pond, Marguerita Bay holds one of the very last pieces of permanent wetland in Montserrat (photo below). This is especially important as it is located in the very dry Silver Hills.

2.2 WHAT ARE THE PROBLEMS?

2.2.1 Waste coming from the sea

Exposed to the Atlantic Ocean, and the constant tradewinds, the beach gets a lot of floating plastic items deposited on a regular basis. As a result, it becomes very unattractive for visitors and residents alike.

2.2.2 Sewage water treatment

The wastewater treatment plant in Lookout has apparently reached its peak capacity, and as a result, it is believed that untreated contaminated water might be released in the environment. This might pose a threat both to the ecosystems and the health of the local population.

2.3 WHAT IS THE PROJECT GOING TO DO?

2.3.1 Organise a beach-cleaning day

Ideally, such events should be organized several times a year, to prevent the pollution accumulating to very high level. (Such events used to be organised by DoE.) Montserrat Island Dive Centre is willing to help.

2.3.2 Provide interpretative signs

The beach is a perfect place for birdwatching or naturalists, and the beautiful landscapes of the northern cliffs have tourist potential, but the public needs to be informed of the danger posed by the abundance of manchineel trees and the fragility of this small ecosystem.

2.4 WHAT THE PROJECT HOPES TO ACHIEVE

Create a sense of pride and community amongst volunteers living in Lookout village, and set up a beach cleaning routine.

Get the Public Works Department to improve access to the beach, for locals to be able to use it and value it, and install interpretive signs regarding the danger of manchineel and the diversity of the ecosystems.

3 CARR'S BAY

3.1 WHY IS IT IMPORTANT?

3.1.1 Importance for people

Carr's Bay is one of Montserrat's economic centres, with the presence of several construction companies, hardware stores, the gas distribution company as well as numerous often temporary snackettes. It is an important place in the life of many inhabitants.

3.1.2 Importance for wildlife

The mouth of Collin's River (photo below) and Piper's Ghaut are probably the last places on Montserrat where a few mangrove trees can still be found. They represent what is left of an ecosystem that has been for the most part wiped out by the filling of Piper's Pond.

3.2 WHAT ARE THE PROBLEMS?

3.2.1 Garbage

Pollution on the beach and in the coastal water comes from mainly two sources:

- take-away markets installed along the road. A lot of customers will just throw away their detritus (plates, empty bottles, cans…) after eating. All this debris will end up being washed away on the beach.

- materials brought from the densely populated areas above the beach being carried by the Collin's River, especially during heavy rainfall.

Migrant semipalmated plover has to feed amongst the carelessly discarded human garbage at a pool at Carr's Bay.

3.2.2 Unattractiveness of the site

The land between the beach and the main road is registered as "unclaimed" crown land. It is used by many, but belongs virtually to "no one", and therefore suffers deeply from the "tragedy of the commons." The vegetation is almost non-existent, apart from the surviving mangrove tree and the dangerous manchineel tree.

As an attempt to improve this aspect, a concrete picnic table has been installed, but is posing a threat to potential users as it is installed under the canopy of a manchineel tree.

3.3 WHAT IS THE PROJECT GOING TO DO

Adopt a Home for Wildlife would complement the existing project implemented by the Montserrat Island Dive Centre: "Adopt a dive site". This organisation has organised monthly beach clean-ups, both above and under the water, for almost a year.

Potential adopters for the site will have the responsibility of keeping sections of the beach clean and attractive, to restore its perceived value and discourage dumping behaviour.

3.4 WHAT THE PROJECT HOPES TO ACHIEVE

- A high level of participation to monthly beach clean-ups, both under the water and on the beach.

- At least one adopter with a team of volunteers to beautify a specific section of the public space, according to generic guidelines, including dealing suitably with manchineel trees, ecologically important but very dangerous in such a high traffic area.

- Construction of a durable bin to provide a clean solution for people willing to throw away garbage.

Experts on incorporating environmental considerations into physical planning to (re) visit Montserrat

Some activities of our project are in operation continually. The preceding article describes the start of an important aspect locally, with an invitation to join Project Officer Nicolas Tirard, Montserrat National Trust and other local colleagues.

In parallel, a lot of work is being carried out remotely by UK Overseas Territories Conservation Forum and other project partners. This is to support current local activities (see above), prepare other aspects and plan and coordinate the project. One aspect of this is described in the next article. This relates to the work coordinated by UKOTCF's Catherine Wensink on preparing for the integration of satellite-imagery information into the project. This includes finding and securing suitable images (and devising ways of doing this at minimal cost for these normally expensive items). Other aspects include securing technical training, and the article on page 7 focuses on a kind donation of this.

At four key points during the 2-year project, some of the outside experts join colleagues in Montserrat for a few days of very intensive work - to make best use of the costs in travel and donated time in undertaking this.

In May, the first of these gatherings was held, to launch the project, tighten up on the planning especially of various elements, including the local ones (see the previous article).

One important aspect was the first workshop on the future of the south of Montserrat. This was extremely successful, as reported in *SOSNature of Montserrat Newsletter 1*. As part of the December visit, we will hold the second of these workshops to build on the outcomes of the first. UKOTCF's Emma Cary and Sarah Barnsley (who facilitated the first workshop) will be present again, to help with this and all other aspects of the project. So will UKOTCF's Dr Mike Pienkowski, overall project leader.

We are particularly pleased that Dr Jo Treweek and Jennifer Hruza will be joining the team. As with all visiting experts, they are donating their time and expertise to the project to help Montserrat. Both are world experts in integrating environmental and social aspects into physical planning. There are profiles of both later in this newsletter. Many readers will recall Jo from early 2015 when UKOTCF again arranged, at the request of Montserrat and UK Government for Jo and UKOTCF personnel to donate their time to give a course on making good use of Environmental Impact Assessment processes. Jo and Jennifer will be building on this with Montserrat participants, to take forward further steps for integrating environmental and social aspects into physical planning - see the following article.

Montserrat Departments of Environment and Physical Planning, as well as Montserrat National Trust and others, have been closely involved in this. We are grateful to these, especially to Tracy Lewis of DoE, whose work links these areas.

Images from UKOTCF Montserrat workshop on Environmental Impact Assessment, January 2015.
Above: A light-hearted moment in a workshop session, shared by (from left) Dr Jo Treweek, Minister Claude Hogan, Director of Agriculture Melissa O'Garro, Director of Environment Gerard Gray, and Stephen Mendes.
Below: Sarita Francis addresses the opening, with other speakers: Gerard Gray, Hon Claude Hogan, and (chairing) Mike Pienkowski (right).
Photos: Catherine Wensink, UKOTCF

SOS Nature of Montserrat project partner organisations

In this regular section of our newsletter, we will profile, in turn, the organisations which are partners in the project.

Treweek Environmental Consultants

Treweek Environmental Consultants (TEC) is a small consultancy specialising in ecological aspects of environmental assessment and planning. TEC works with clients in many sectors and countries to help them achieve sustainable outcomes for biodiversity and ecosystems affected by their operations. TEC also carries out due diligence reviews for financial institutions and works with NGOs to

develop innovative and practical approaches to mainstreaming biodiversity and ecosystems in development. TEC is a project partner in the Darwin Plus-supported project coordinated by UKOTCF. In this work, TEC is acting in a *pro bono* capacity. Jo Treweek and Jennifer Hruza are TEC consultants supporting the Darwin Plus Project in Montserrat.

TEC will work with the Government of Montserrat, its departments, the Physical Development Authority, Montserrat National Trust and other stakeholders to develop a set of environmental tools to help operationalise the existing regulatory framework, protect Montserrat's threatened biodiversity and safeguard priority ecosystem services. The tools may also be used to advance strategic planning efforts throughout the island, including for potential development in the south. The objectives are fourfold:

- To support Government decision-making and environmental planning in a resource-constrained environment;
- To strengthen private sector engagement in safeguarding Montserrat's nature and supporting project development that aligns with international good practice;
- To deliver tools that aim to avoid significant impacts on priority biodiversity values and ecosystem services, are user-friendly and support a stepwise change in the project approval process; and
- To support island development that integrates economic, social and environmental considerations, 'looking after every little nook and cranny of the island'.

The tools may include project scoping, ESIA (Environmental & Social Impact Assessment) review and mitigation checklists, with biodiversity mainstreamed throughout. Checklists may be designed to cover generic and sector-specific issues. Other tools potentially include biodiversity screening criteria, habitat mapping and ecosystem screening templates. The tools could be used at the following entry points:

- Environmental planning at the strategic level
- EIA review and issuance of the Certificate of Environmental Approval
- Project monitoring

Working in collaboration with partners in the Government and others, TEC will leverage their experience with regional and national level environmental planning, environmental and ecological impact assessments, biodiversity mitigation design, and environmental monitoring, to deliver tools tailored to the Montserrat context. To underpin sustainable planning efforts, TEC will also lead a workshop on how to identify priority ecosystem services so that these are incorporated into the ESIA process.

Summary work programme

Project initiation

- The team from Treweek Environmental Consultants (TEC) will:
  - (i) Review of the Montserrat regulatory framework, existing diagnostics and results of previous UK Overseas Territories Conservation Forum-coordinated work;
  - (ii) Use the results to **develop a set of tools** aimed at supporting the implementation of existing environmental and planning legislation (e.g. CEMA, Planning Act, Turtles Action, Fisheries Act) and guiding development in Montserrat to environmentally sustainable outcomes: Toolkit v.0

Fact finding & validation

- TEC will travel to Montserrat for a **fact finding mission** November 28 – December 6, 2016.
- While in Montserrat, TEC will meet with stakeholders in order **validate the conclusions** of the preliminary analysis and **solicit stakeholder input** to inform the form and content of the toolkit. TEC will also participate in the 2nd workshop on the future of the south planned for December 2nd.

Revision & workshop

- Stakeholder input will be used to revise the draft toolkit and develop Toolkit v.1.
- **Toolkit v.1 presented to stakeholders in a workshop** on December 5th prior to the end of TEC visit. The workshop will include two agenda items: (i) the presentation of the tools, with time for participant feedback, and (ii) an introductory clinic on identifying priority ecosystem services.

Toolkit delivered

- TEC will make revisions to the toolkit and **deliver Toolkit v.2** to Montserratian stakeholders for road-testing.

Satellite imagery for the environment in Montserrat starts – with a little help from our friends

Dr Katie Medcalf is Environment Director at Environment Systems, a UK-based environmental consultancy company. She has over twenty years of experience in projects particularly in geographic information systems (GIS) and remote sensing, a method used to obtain information about an area from a distance, e.g. by using satellites or aircrafts.

Katie has worked on a number of projects in the UK Overseas Territories. Recently, she has been working with the Anguilla Department of Environment on habitat-mapping in Anguilla. The project produced detailed habitat-maps of the island, provided information on the role of the habitats and biodiversity, and built understanding about the value of the green economy (or sustainable development) to the island.

In 2015, she attended her first UKOTCF-organised conference for conservationists, held in Gibraltar, where she met several representatives from Montserrat. Her presentation outlined project work and identified several ways in which remote sensing and GIS could be used as a cost effective way to record and display biological information elsewhere.

Katie is keen to support work in the UKOTs as she recognises some of the difficulties they face: for example, lack of baseline data on environmental systems and few resources locally to carry out survey work, which are needed to inform management decisions. She has donated several hours of her time to this project, particularly to the Project Officer, on the use of a free online GIS tool. This will make it possible to display biological information as maps. This can then be used to see patterns and understand relationships in the data, e.g. what is the distribution of vegetation on Montserrat? Where can our unique vegetation be found? Do we have a lot of vegetation that has been introduced?

The project team would like to thank Katie for her expert advice given so far, and is very grateful that she remains on hand to provide further assistance whenever possible.

Did you know...?

This project centres on Montserrat's special nature – especially its native plant and animal species. Many of these occur nowhere else in the world. So, if Montserrat loses them, they will become extinct and so no-one in the world will ever enjoy seeing and hearing them again. We all want to avoid that.

But not everyone, even on Montserrat, knows all of these native plants and animals. As well as those which occur only on Montserrat, others depend on Montserrat to provide some of their essential needs.

One of the animals which most Montserratians will recognise is the Montserrat oriole (see photo on page one with a male oriole on one of Montserrat's special plants, the red heliconia).

In this series of articles, we want to highlight a few of the many other special animals and plants of Montserrat. If you want to see even more of these, many of the birds and mammals, plus a few of the insects and plants, can be seen in the book *Birding in Paradise: The Caribbean Emerald Isle of Montserrrat – A guide to bird-watching, nature and heritage sites* (by Mike & Ann Pienkowski, Catherine Wensink, Sarita Francis & James 'Scriber' Daley). This can be purchased on island from Montserrat National Trust (EC$27 or US$10) or by post or download from www.ukotcf.org/birding-in-Monserrat/index.htm.

Did you know that Montserrat's consistent rainfall during the year is not only an important source of water for humans but also some of the pollinators that provide us with delicious fruits to eat? Pools of rainwater generated by short downpours are temporary feeding stations for butterflies. They can be seen gathering along the roadsides all over Montserrat. Although they get most nutrients from nectar in flowers, they also sip moisture from mud puddles, as they contain additional salts and minerals needed for physiological functions such as reproduction. Next time you see this wonderful sight, you will know that these are mainly male butterflies gathering together to fill up on important nutrients while there is plenty to go around.

Photo: Catherine Wensink

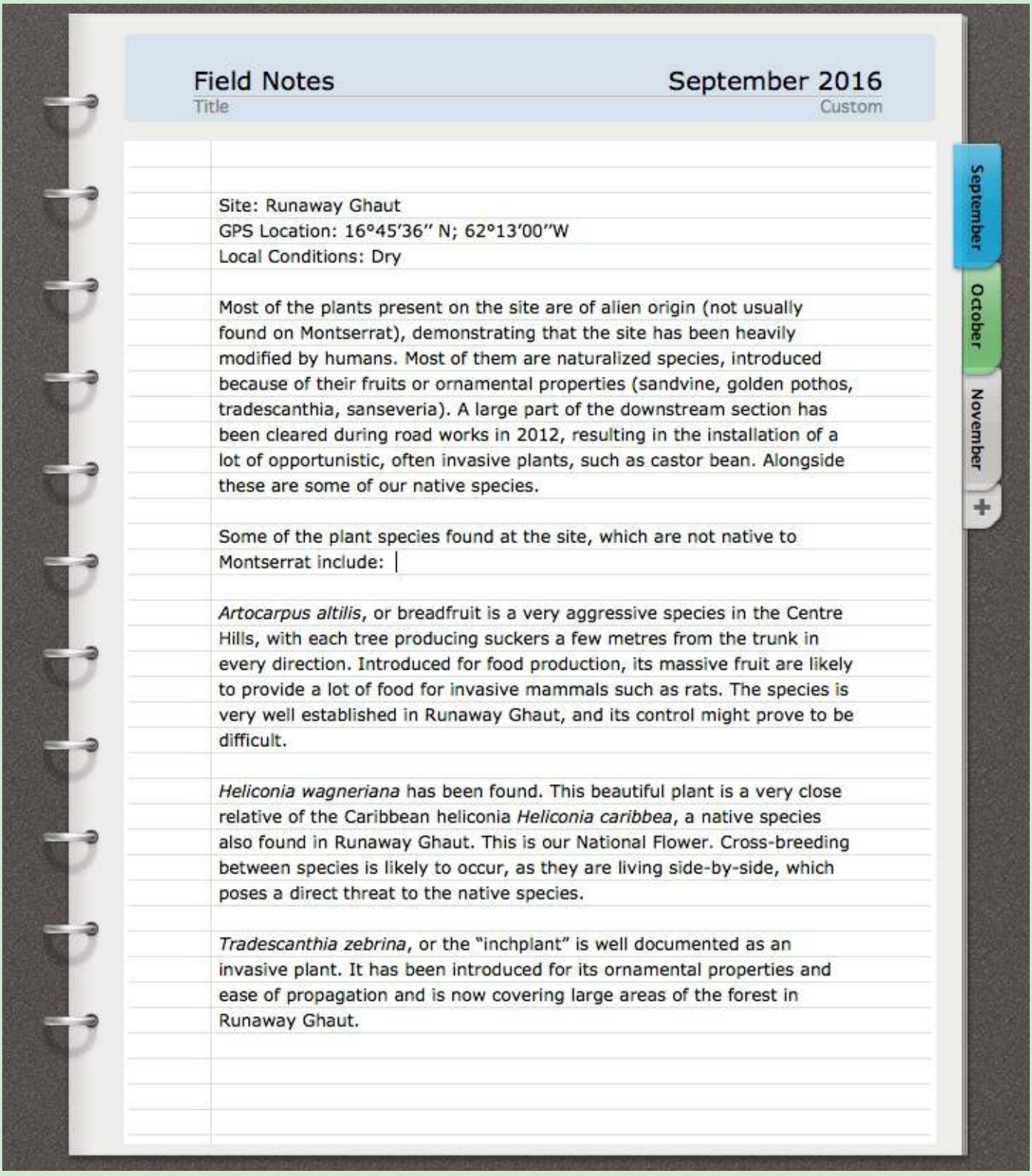
Did you know that the brown trembler is a mainly forest bird, found only within the Lesser Antilles? It is fairly secretive, but can be found in the forested areas of the island. Related to the mockingbird and thrasher it has a bulky upturned bill, downturned tail and drooping wings. As it searches for a wide variety of foods including: fruit and seeds, insects, tree frogs and lizards, it displays a trembling behavior, which makes it very difficult to photograph as it rarely stands still! It is not well understood why they do this, but there is some evidence that suggests it is a means of communication.

Photo: Dr Mike Pienkowski

Field notes from Nicolas

Some work has begun on the project output that aims to achieve better local capacity to address conservation issues. Project Officer Nicolas has been out-and-about collecting information on the current status of invasive plants in the open zone, which will help the team start to think about how a management and control plan could be developed and initiated. From the initial results, it is clear that some species of plants not normally found on Montserrat are starting to have an impact on the plants that are found here and no where else. Some species might be very difficult to control, and so we may have to think about those that are of greatest concern.

By way of introduction to this aspect of the project, below is an excerpt of some of Nicolas' field notes collected so far in an area of the Runaway Ghaut. Here he has found several species of plants, which could potentially be of concern to Montserrat's native plant species:



Field Notes — September 2016
Title — Custom

September | October | November | +

Site: Runaway Ghaut
GPS Location: 16°45'36" N; 62°13'00"W
Local Conditions: Dry

Most of the plants present on the site are of alien origin (not usually found on Montserrat), demonstrating that the site has been heavily modified by humans. Most of them are naturalized species, introduced because of their fruits or ornamental properties (sandvine, golden pothos, tradescanthia, sanseveria). A large part of the downstream section has been cleared during road works in 2012, resulting in the installation of a lot of opportunistic, often invasive plants, such as castor bean. Alongside these are some of our native species.

Some of the plant species found at the site, which are not native to Montserrat include:

Artocarpus altilis, or breadfruit is a very aggressive species in the Centre Hills, with each tree producing suckers a few metres from the trunk in every direction. Introduced for food production, its massive fruit are likely to provide a lot of food for invasive mammals such as rats. The species is very well established in Runaway Ghaut, and its control might prove to be difficult.

Heliconia wagneriana has been found. This beautiful plant is a very close relative of the Caribbean heliconia *Heliconia caribbea*, a native species also found in Runaway Ghaut. This is our National Flower. Cross-breeding between species is likely to occur, as they are living side-by-side, which poses a direct threat to the native species.

Tradescanthia zebrina, or the "inchplant" is well documented as an invasive plant. It has been introduced for its ornamental properties and ease of propagation and is now covering large areas of the forest in Runaway Ghaut.

In order to decide on appropriate management techniques, more data are needed about the spread and extent of invasive species. Nicolas aims to collect more information throughout the project.

SOS Nature of Montserrat team

In this regular section of our newsletter, we introduce some of the team working on the project. In the first few issues of the newsletter, we will obviously be tending to cover those involved in planning and developing the project. In later issues, we envisage that the balance will change to include more of those implenting the project on the ground.

Dr Jo Treweek

Jo Treweek is an ecologist specializing in mainstreaming biodiversity and ecosystem services in development planning and environmental assessment. She is Director of Treweek Environmental Consultants Ltd and has 25 years experience in many countries of doing environmental assessments of plans and projects, designing ecological mitigation strategies and auditing projects for international development and finance institutions.

In recent years she has been involved in the design and implementation of biodiversity offsets, has undertaken landscape-scale reviews of ecosystem services for clients in the oil and gas and mining sectors and has worked with the World Resources Institute to produce guidance on incorporating ecosystem services into environmental impact assessment.

Jo conducted a workshop on Environmental Impact Assessment in Montserrat in 2015 and was invited to drink from the Runaway Ghaut, hence it is no coincidence that she is planning to return to assist with follow-up to that workshop.

Jo has a PhD in grassland ecology and a BA from Oxford University in Agricultural and Forest Sciences. She is a Chartered Ecologist with the UK Chartered Institute of Ecology and Environmental Management.

Minister Hogan makes sure that Dr Jo Treweek returns by inviting her to join him for a drink from Runaway Ghaut.

Jennifer Hruza

Jennifer Hruza is a consultant with 13 years of experience working as an environmental and social specialist with international development institutions. This work has included the completion of environmental and social scoping and impact assessments, the development of environmental and social management systems, and environmental auditing and monitoring. Her experience has primarily focused on infrastructure projects in West and Southern Africa.

For the last eight years, she has been engaged as an environmental consultant with the International Finance Corporation's (IFC) Environment, Social and Governance Department. IFC, a member of the World Bank Group, supports the private sector in developing countries. Her recent work with IFC has focused on the implementation of IFC's Performance Standard 6, Biodiversity Conservation and Sustainable Management of Living Natural Resources. Performance Standard 6 has become a global benchmark for the assessment and management of biodiversity risks and impacts. Jennifer works with IFC clients to implement good international practices throughout a project life-cycle, from design, construction, and operations.

Prior to joining IFC, Jennifer was a specialist with the Environmental and Social Performance team at the Millennium Challenge Corporation (MCC), a U.S. government agency. At MCC, she worked in partnership with environmental experts from the countries where MCC invested. With her counterparts, she integrated environmental impact assessment, mitigation and planning into the design and implementation of a wide range of projects – water supply and sanitation, transport infrastructure, power, waste management, land tenure, irrigation, and agribusiness.

Jo Treweek of Treweek Environmental Consultants invited Jennifer to join the *Saving Our Special Nature of Montserrat* Project. Jennifer and Jo worked together for a number of years on an IFC-financed project in the Gobi in Mongolia.

She holds an M.A. in African Studies/Environment and Development from Yale University, a B.A. in French Studies (Francophone Africa) and a B.A. in International Relations from Colby College. She lives in London, United Kingdom.

Emma Cary

Conservation Officer; Secretary Europe Territories Working Group, UKOTCF

Emma holds an MA(Hons) in Social Anthropology with Development from the University of Edinburgh and an MSc Conservation Biology from the Durrell Institute of Conservation and Ecology. Her interests lie in sustainable development and capacity building for conservation action. In 2010, she spent time working for a conservation research charity in Malaysian Borneo, but since 2011 has been based in the UK. During this time Emma has worked on various projects in South West England, including the National Trust's coast and countryside land-holding in South Devon and RSPB farmland bird projects in Cornwall. Emma joined UKOTCF in 2014 and has supported a number of projects, including the 2015 Gibraltar conference, a review of progress in implementing the Environment Charters, and the creation of the UKOTCF Wikipedia page. As Secretary of the Europe Territories Working Group, Emma usually deals with issues closer to home, although she was fortunate to visit Montserrat

with UKOTCF in May 2016 where she enjoyed the island's beautiful scenery, and the famous Montserratian hospitality! Highlights included scuba diving the reefs and caves of Little Bay and exploring the hills with Scriber. Emma is also a Pilates instructor and works as an ecological assistant during the summer, carrying out surveys for protected species on proposed development sites. In her spare time, she enjoys sailing on the Norfolk Broads, cycling and open water swimming.

Emma (right) and Project Officer Nicolas Tirard study vegetation in the forest in Montserrat (Photo: Sarah Barnsley)

Sarah Barnsley

Conservation Officer; Secretary Southern Oceans Working Group, UKOTCF

Sarah has always loved being outdoors and, having grown up in the Alps, she was able to explore the mountains and the wildlife that they offer. This developed her love of nature, therefore leading her to choose a BSc degree in Animal Science from the University of Reading and then an MSc in Conservation Science from Imperial College London, which she completed in September 2014.

Since joining UKOTCF in October 2014, Sarah has thoroughly enjoyed learning about the conservation work in the UK's Overseas Territories and Crown Dependencies. During that time, she has been part of the conference team for UKOTCF's 'Sustaining Partnerships' conservation conference held in Gibraltar. She worked also on a recently completed review of Territories' progress towards Commitments listed under the Environment Charters and those under various UN conventions. As Secretary of the Southern Oceans Working Group, Sarah has been involved with writing newsletters, organising meetings, and acting as the first point of contact for this network , as well as developing the Virtual Tour for Ascension Island. Sarah has recently returned from Guernsey where she attended the Inter-islands Environment Meeting. Knowing Jersey well, but having never visited any of the other Channel Islands, Sarah greatly appreciated this opportunity! It was great to hear about all of the projects - from new Protected Area designations, to the many environmental education opportunities available to students. She also had the opportunity to visit Herm Island and the newly designated Ramsar site.

In May 2016, Sarah visited Montserrat for the first time, where she was involved with the setting up of this Darwin Plus-funded project. While here, she was lucky enough to explore the rainforest of the Centre Hills and the dry forest of the Silver Hills, and even to have a go at diving for the first time! Other interests include skiing, travelling, yoga, dancing, and hiking up in the mountains.

Did you know...?

Did you know that bromeliads are a family of flowering plants? Some are epiphytic (meaning that they grow on another plant without causing them harm) living in a variety of conditions, like those seen in abundance at the start of the Rendezvous Trail. This is quite a dry area compared to the Centre Hills where they can also be seen. They are not part of the tree they cling to, but are in fact individual plants with their own root systems. They have various adaptations, which does not limit them to growing in soil. A perfect example of this ability to grow almost anywhere is on your route along the main road into Brades, where you can see them living on the telephone lines overhead.

Photos: Catherine Wensink