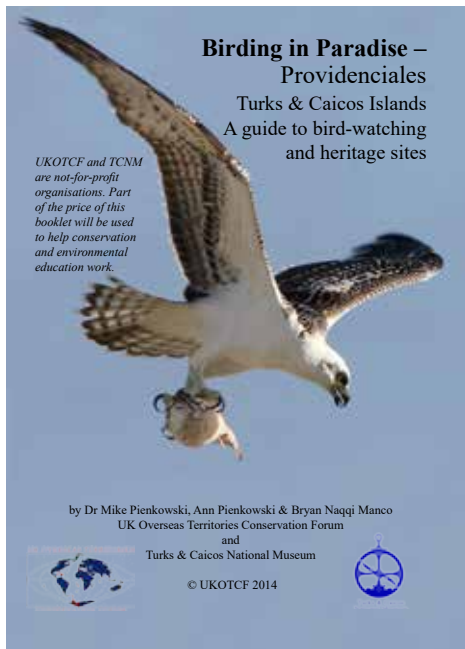


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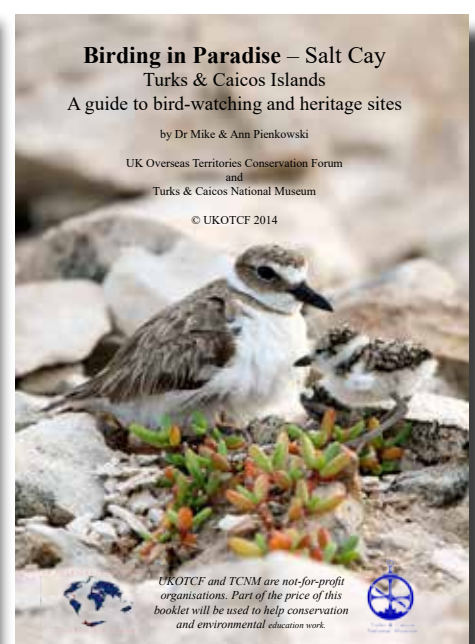
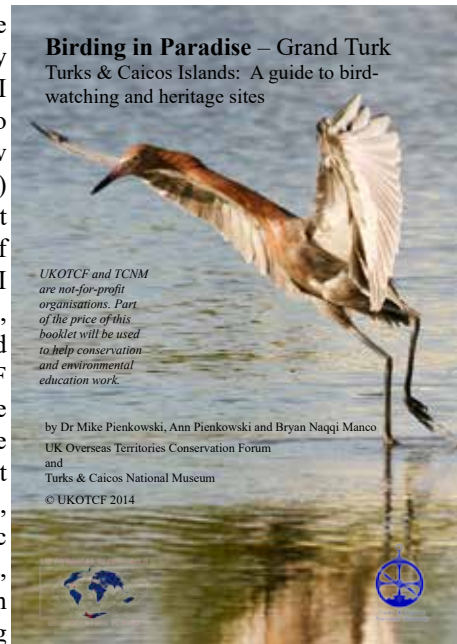
NOVEMBER 2018

• www.ukotcf.org.uk

Turks & Caicos Government and UKOTCF provide nature guide-books for schools and public buildings in TCI



The luggage of UKOTCF Chairman, Dr Mike Pienkowski, was severely – and deliberately – over-weight on the first leg of a visit to TCI and Montserrat in October. This was not due to any regard for a range of garb (those who know him are aware that he is not a fashion icon!) or more than the usual load of equipment. It was due to about 75 kg (approx. 165 lb) of books. On a previous visit, Mike and TCI Minister of Tourism, Environment, Heritage, Culture & Gaming, Hon. Ralph Higgs had agreed that TCI Government and UKOTCF would share the costs of supplying sets of the 5 guide-books to bird-watching and heritage sites *Birding in Paradise* (for Grand Turk, Salt Cay, South Caicos, Middle & North Caicos, and Providenciales) to schools and public buildings in TCI. This mode of transport, rather stretching of Mike's arms, had been found to be the most economic way of getting the books to TCI.



The books, illustrated by photographs taken in TCI, were produced by UKOTCF with Turks and Caicos National Museum. This series of books have been exceptionally well reviewed: “They are excellent and could be used as prototypes for guides to other Caribbean islands.” “These books will make my birding much easier and more successful. The booklets are each about 50 pages long and contain detailed maps, numerous photos of the local birds, instruction on how to get to local birding sites, and brief summaries of island geology and history.” They have inspired a similar book for Montserrat, produced by UKOTCF with Montserrat National Trust.

Copies of the books for the relevant territory can be bought from both Grand Turk and Providenciales branches of the Turks & Caicos National Museum (as well as some other outlets) in TCI and the Montserrat National Trust Gift-shop in Montserrat. Copies can be purchased, either for mailing to other countries or as a digital download, from <https://www.ukotcf.org.uk/pages/shop/departement/all>.



Meeting at Turks and Caicos Ministry of Tourism, Environment, Heritage, Culture & Gaming, Grand Turk, March 2018: from left (front) Dr Mike Pienkowski, UKOTCF Chairman; Hon Minister Ralph Higgs; (back) Michelle Fulford Gardiner, Deputy Permanent Secretary; Brian Been, Tourism Risk Manager. Photo: TCI Government

UKOTCF and Turks & Caicos National Museum review hurricane damage to nature trails and investigate repairs

Grand Turk is one of the best bird-watching locations in the world, with normally shy waterbirds allowing close views (all the pictures in this article were taken on the old salt-pans there in a few hours between meetings on two days in October 2018).

In 2010, UKOTCF and Turks & Caicos National Museum Foundation established bird-watching trails (see <https://www.ukotcf.org.uk/turks-and-caicos-islands#TCIOutreach>). These featured also in our bird-watching and heritage guides to TCI (see previous article: see <https://www.ukotcf.org.uk/pages/shop/departement/all>). Even our sturdy trail markers suffered in last



Above: not many capitals have wild flamingos feeding in their centres. Below: after diving to catch a fish, a tern really needs to shake the water off. All photos in this article: Dr Mike Pienkowski



September’s hurricanes Irma and Maria, both of which hit TCI (and some less-than-careful truck-driving!).

With the repairs to homes and other buildings well under way, Dr Mike Pienkowski took the opportunity of his visit to Grand



Above: a black-bellied plover from high-arctic breeding grounds moulting its solid black front to its grey winter plumage.

Below: Even a marker on a recycled section of power pole (gleaned from the 2008 hurricane damage) and set 50cm into the ground is not immune!





*Above: tiny least sandpiper from arctic breeding grounds refuels on minute shrimps.
Left: snowy egret preens its feathers.*



Turk in October to survey the damage to the trails and explore the securing of resources to restore the trails, as well as to train more local people to benefit from them as tourist guides to these internationally important wetlands. TCI's Governor's Office has made the first contribution to this, for which UKOTCF and TCNMF are most grateful. Further support is welcome. (see <https://www.ukotcf.org.uk/turks-and-caicos-islands#TCIChallenges>).

Archaeological dig discovering more about Lucayan networks and their relationship with the sea

An archaeological dig took place in October 2018 at Long Bay on the south side of Providenciales, which is set to become a new real-estate development. It is being led by Dr Shaun D. Sullivan, President of the Anthropological Research Council, USA. He has



long been involved in TCI and had earlier seen this site's potential. The present dig was organised by two UKOTCF Associate Organisations, Turks & Caicos Reef Fund and Turks & Caicos National Museum Foundation. and is being supported by local developer Windward Long Bay Ltd, Sail Beluga and non-profit, Turks and Caicos Reef Fund.

UKOTCF's Chairman, Dr Mike Pienkowski, had the rare opportunity while on a brief visit to Turks and Caicos in October to drop in on the first day of the archaeological dig. A keen team of volunteers, including students, were working under the direction of Dr Shaun Sullivan. The Museum Director, archaeologist Dr Michael Pateman, was leading one of the teams digging a series of small test pits on a grid across the site. Even the test pits were rich in fragments of tools made by the pre-Columbian Lucayan people from conch shells, tiny early pottery fragments and fire carbon which will be used to date the site. These early finds bode well for the dig.

The unusually large amount of clay, not common in the area, cause the archaeologists to consider this may actually have been a manufacturing area. In the pre-Columbian period, apparently trade in pottery and other materials between the islands, including what became Hispaniola, was developing.

The Turks and Caicos Islands were a centre of the Lucayan people. The indigenous Lucayan population were eradicated, by slavery and disease. However, much evidence exists of their presence



Left: Dr Michael Pateman (left), Dr Shaun Sullivan and other local volunteers start a test pit.

Above: pottery fragment found in sieving tray.

Below: local student volunteers sort finds, under Dr Sullivan's guidance.

Photos: Dr Mike Pienkowski



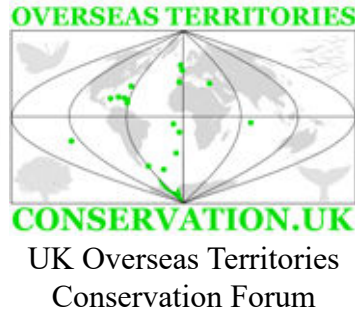
throughout the islands for some time. Dr Sullivan also believes that the story of very short term extinction of the Lucayans in TCI is mythical. As soon as local people realised the threat from the Spanish invaders, news would spread so that sighting of ships would probably cause people to run and hide inland, which they would know much better than the Spanish.

Dr Sullivan has been leading digs throughout the area since the 1970s. During test excavations at the South Bank Site, he found

that it was the location of a Lucayan village, occupied during the 14th Century AD and found it to be unusually rich in ceramics imported from Taino in the Greater Antilles.

The team is particularly interested in finding out more about Lucayan relationships with local marine resources, kinship networks and trading partners among the indigenous people from Hispaniola and Cuba.

We look forward with anticipation to their results.



Saving Our Special Nature of Montserrat: Adopt a Home for Wildlife continues

The first two years of this current programme (see *Forum News xx*) of Montserrat National Trust, UKOTCF and the Government of Montserrat were supported in part by a grant from UK Government's Darwin Plus fund, under the title *Maximising long-term survival prospects of Montserrat's endemic species and ecosystem-services*. At present, the programme is not in receipt of outside funding but this is being applied for. Meanwhile, UKOTCF and MNT are keeping the programme going at a maintenance level using just their own limited resources – because it is important to maintain the excellent momentum built up and support the committed and effective efforts of local partners, especially in the *Adopt a Home for Wildlife* component of the work. UKOTCF Chairman, Dr Mike Pienkowski, arranged to spend 9 days Montserrat during a visit to the region, to help with this.

News from Corkhill Reunion Committee

Over a year on from the opening of access to the Corkhill area, the ambitious work of the Corkhill Reunion Committee, as part of *Adopt a Home for Wildlife*, continues. The Committee organised an extra meeting to coincide with the visit in October of UKOTCF's Chairman, Dr Mike Pienkowski.



*Some of the members of the Corkhill Reunion Committee at a meeting with UKOTCF to explore progress and future developments.
Photo: Dr Mike Pienkowski*

At the meeting, Mike assured the Committee of UKOTCF's and MNT's continuing support, despite the funding gap meaning that



Above: An impressive start has already been made at Corkhill by the clearance of the overgrown cricket ground and certain other areas, where native plants from the MNT nursery will be grown, such as around the edges of this ground. Photo: Dr Nicola Weber.

Below: But a great deal remains to be done: black-berry trees overwhelming the formerly residential area at Corkhill, with houses now almost hidden behind the invaded front gardens. Photo: Dr Mike Pienkowski





Rose Willock and Roland Irish (and Mike's mic) in the ZJB Radio Studio broadcasting Rose's Saturday show on 27th October 2018.
Photo: Dr Mike Pienkowski

there was no local project officer at present. Mike explained that he works as an unpaid volunteer in the project. As there was no travel budget at present, he had arranged the opportunity of a visit to the region funded from elsewhere to spend 9 days in Montserrat to encourage progress.

The meeting discussed with Mike the increased opportunities to develop the work, especially once there is a MNT/UKOTCF project officer in place again, and outlined the further work that the Committee would be undertaking in the interim.

A couple of days later, Committee member, Mr Roland Irish joined Mike Pienkowski on Rose Willock's ZJD Radio Montserrat Saturday show to inform Montserratians and others on island and across the world of progress. Mike and Roland were able to explain that invasive plants are those which do not occur naturally on Montserrat but have been introduced deliberately or accidentally by people. In some cases, these invaders spread widely, and threaten native plants and animals. Because humans brought these aliens, we have some responsibility to overcome their negative effects.

At present, we do not have the technology to remove the invaders from the whole island – and, for some of them which are useful (if kept under control), we would not want to anyway. By looking after their areas of Montserrat, the participants in *Adopt a Home for Wildlife* are helping locally native plants and animals survive in the long term – especially important because some of these species occur only on Montserrat and nowhere else in the world: if Montserrat loses them, so does the world.

Some species, such as the Australian pine *Casuarina*, are



Tim Orton (left) speaks with Mike Pienkowski, both standing in an area from which invasive acacia plants have been removed. This is now the area of gradation from the conventional garden to the restored tropical dry forest. Photo: Dr Mike Pienkowski

particularly harmful because they shade out native plants and also kill them by poisonous chemicals secreted by their roots. The *Casuarina* plants are also very liable to be uprooted and add to erosion during hurricanes. So, they have no human uses (except shade, which can readily be achieved using native plants). In contrast, a plant like black-berry is important for making drinks and foods. However, for over 20 years, people have been unable to manage this area. Black-berry trees have spread hugely, at the expense of the loss of much native vegetation. In this situation, we need to get the area of black-berry reduced to just what we need, so that native species can be given space to recover, helped if necessary by planting additional specimens from the MNT native plant nursery.

We look forward to further developing this co-operation.

***Adopt a Home for Wildlife* project and Tim Orton help the Durrell team work to conserve the mountain chicken**

Tim Orton continues his work, as one of the partners in *Adopt a Home for Wildlife*, on progressively removing the invasive plants from his land on Garibaldi Hill. This is an area of tropical dry forest, one of the most threatened ecosystems in the world – even more so than tropical rain forest. The native plants from natural seeds are being encouraged and supplemented by native plants from Montserrat National Trust's nursery.

Tim was one of the inspirations for *Adopt a Home for Wildlife*. Early in the project, while the project partners were working out how best to deal with invasive plants, Tim bumped into Mike and Ann Pienkowski, when all were waiting for friends and colleagues to fly into the airport. That discussion was very productive! Later, Tim enthusiastically welcomed entomological project-partners Montana State University to undertake some of the studies on his land. As far as we know, tropical dry forest has rarely been studied here, but is very different habitat to the Centre Hills, and the results from these surveys will be very interesting once analysed.

When Luke Jones, of Durrell Wildlife, was looking for experimental sites in relation to possible restocking of the Critically Endangered mountain chicken frog, Tim volunteered again.

The mountain chicken is the largest native frog in the Caribbean. Previously spread across several islands, it was reduced by hunting for food (hence its name) and by predators such as rats, introduced by humans, to survive on just two islands, Montserrat and Dominica. The volcano and ash-fall had some impact on the mountain chickens in Montserrat, and a number were taken into captivity, as an insurance policy, for captive-breeding in Jersey and UK.



Mountain chickens used to be abundant on Montserrat, with their calls a characteristic sound, and the frogs relatively easy to find in many of the ghauts. Photo: Dr Mike Pienkowski



Deeper into Tim's tropical dry forest, he and Luke Jones inspect one of the experimental ponds described in the text. Photo: Dr Mike Pienkowski

The chytrid fungus has had a major negative impact on amphibians around the world, causing the total extinction of some species. Human trade, especially when inspections and quarantine arrangements are inadequate, has unwittingly spread the chytrid fungus to many countries where it does not naturally occur.

In 2002, this deadly fungus reached Dominica (which is 10 times larger than Montserrat), and reduced the mountain chicken population there by 80% in just 18 months, and subsequently to no detectable frogs in Dominica in 2006, although small numbers have since been detected.

This horrible disease arrived in Montserrat in 2009, leading to a rapid 85% decrease in the population – one of the most marked declines ever recorded in an animal population over such a time period. Despite continued surveys in difficult terrain, survival of mountain chickens has not been confirmed, although hopes remain, noting what happened on Dominica.

Nevertheless, the frogs on both islands need help to ensure their long-term survival. There are good captive populations of both Montserrat and Dominica populations (kept separately to preserve any genetic differences) at several zoos (including Durrell in

Jersey, the Zoological Society of London and Chester in the *Mountain Chicken Project*. However, there is no point in releasing any of these frogs into the wild if they are just going to be killed by the fungus.

Intensive research has addressed this issue in recent years, trying many approaches. As one of these, Mike Hudson discovered in his PhD work that, above 28°C, mortality of the fungus increases. Therefore, the *Montserrat Mountain Chicken Project* is experimenting with providing ponds at high temperatures, using a combination of black plastic piping to heat water and solar panels to pump the water, as well as other simpler approaches. They are removing the canopy over some such areas to increase solar heating, and providing warm basking sites on rocks, it having been discovered that several species of amphibian suffering from chytridiomycosis increase basking behaviour. This can be beneficial in that it is often the underside of the frogs

which suffer most from the fungus.

And this is where Tim's site comes in. The work is at the stage of experimenting with the effectiveness of providing warm pools and monitoring these, so no frogs have been released yet. This will not happen until the team know that suitable pools can be provided to raise the chances of the frogs' survival.

In line with some other work helping sensitive species recover from a human-introduced alien disease, experiments will be made also to help the frogs overcome other stresses. This may include provision of additional food (native insects, rather than bringing in other aliens and creating a new conservation problem!) Such measures may help the frogs adapt to the presence of the chytrid and overcome it. As in all such experimental approaches pioneering new conservation measures, monitoring and adapting the techniques will be crucial. This will include measures like rat-proof refuges.

We all agreed that this work is very complementary to *Adopt a Home for Wildlife*, and we look forward to further co-operation.

Saving Our Special Nature of Montserrat: **review and building on the successes so far**

One important aspect of our work has always been to meet requests for assistance. As UKOTCF has such a wide network of specialists and technical experts it can call upon, this can be used to great effect should a partner seek help. Over the past few years, we have been continuing our over-20-year relationship with those on Montserrat in a project which you may have read about in *Forum News* (issues 46, 47 & 48). Project work is beneficial to the Forum in many ways, but perhaps most significantly it enables us to really keep a very good grasp of some of the issues the UKOTs are facing. Of course, the individual challenges differ between each territory, but implementing a project on time and within budget with demonstrated impact requires a monumental effort from all involved.

In the sixth newsletter *Saving Our Special Nature of Montserrat*, activities in the final months of the phase of the programme part-funded under Darwin Initiative grant DPLUS049 were reported. We continue to seek funds for the continuation of this work and some of the major priorities identified by stakeholder consultation on-island. All newsletters are available online (<https://www.ukotcf.org.uk/news/project-newsletter-1>).

Over the summer months work continues on the Montserrat Virtual History Museum (see next page).

It is unfortunate that, as a consequence of no further funds being

available, the Project Officer, also supporting the Montserrat National Trust with a wide variety of work, will no longer be supported by project funds in March 2018 beyond the project and left the island in June.

The final report on this grant was submitted to the Darwin Initiative, on schedule before the end of June. It received a grade A, which means the independent reviewer felt that it had met its objectives.

Here are a few extracts from the independent review of the final report on this Darwin Plus grant:

The project's "design involved extensive community consultation with the Minister, the Department of Environment and Montserrat National Trust, Montserrat's civil society environmental body, in the year running up to the project start date. While ambitious, the design took into account what would be feasible within the timeframe."

"The project had four stated Outputs, each of which was achieved to a greater extent."

"The emergent Montserrat Virtual Museum of Natural History (verified through Annex 19) is a good example of the repatriation of data to the host country through data sharing and open access."

"the 'Vision for the South of Montserrat' included in Annex 9 is a very comprehensive and detailed statement of goals and

Montserrat Virtual Museum of Natural History

Insects

Home Insects Invertebrates Plants Vertebrates Geology Library People About Us



• [Coleoptera \(beetles\)](#)

A page from the online Montserrat Virtual Museum of Natural History (MVMNH). Because of the project and the work of its partner, Montana State University (MSU), Montserrat's data (initially beetles) will be curated at no cost to Montserrat. A series of events has converged to delay full public availability of the insect data now uploaded to the MVNHM. The powerhouse of the project is the data warehouse and program centre at the Ohio State University. The Montserrat data are a tiny fraction of this overall service system that serves data from millions of specimens from many institutions and projects around the world. The first problem was the departure of the original, long-time programmer and "fixer" Joe Cora. Replacing Cora was difficult, and the position went empty for a long time. This resulted in a large backlog of data accession, and this backlog was not cleared as two new people went through the hiring and leaving process in short order. Then, a hard disc failure brought administrative attention to this ageing system, although all data were safe on the duplicated system. New equipment required approval from the University computing administration, and the old system was woefully out of date. Lengthy negotiations resulted in the University computing administration accepting responsibility for this project, but then new hardware had to be obtained, and the Oracle-based system migrated to a new platform, with new personnel. The system was down for months, but is now coming back on-line with new and all-around better hardware, software and security. The backlog is still in place, and training has been undertaken for data-entry people, like MSU, for the higher security requirements. All of this is better for the long term of MVMNH but involves some delay in restoring capacity to update content, analyse results and show updates in information as they happen. Dr Ivie has obtained internal funding for a full-time museum data specialist to clear this issue as soon as the system is fully available. This is in progress. Limited functionality has been restored at this time, but the interface between the OSU system and the public face of the MVMNH will have to be fully reprogrammed after the OSU system is fully functional. Mike Ivie has programming personnel in place for this task. This complex of problems was not predictable by the project or the leader of this part of it, MSU. However, the commitment, dedication, extra work, and securing of external resources that MSU have shown in recovering this situation demonstrate well the commitment of project partners to the legacy of long-term functionality of the outcomes. The products this element of the project had expected to deliver have been achieved, despite challenges, although Dr Ivie's team would have wished for the draw-down of data for the portal to have been fully operational by project end.

requirements that provide a very useful point of reference for future work within the exclusion zone."

"The detailed narrative of the Final Report does however, indicate a project that has been well managed both from the UK and within Montserrat. The project (and the people of Montserrat) were unfortunate to endure such extreme weather events during the time of the project, but it appears that the consequences and emergent challenges have been navigated successfully."

"The project identifies both immediate and long-term strategic outcomes. The former has been to identify and agree priorities with key stakeholders as to the most sustainable approach to the ongoing recovery of Montserrat's ecology and economy. The latter is to establish capacity on island to enable this to happen. Both have been achieved which is a credit to the project and all those involved. As set out and described in the consultant report, there exist the legislative and political frameworks to enable appropriate governance decisions to be made on Montserrat and there is an ongoing political support for sustainable change to occur. Grade: A"

"The Adopt a Home for Wildlife scheme is one example of a grass-roots initiative to both remove invasive non-native species and facilitate the recovery of native species. Indirectly, this should

lead to a more naturally biodiverse ecosystem from which services would be derived. Recovery and stabilisation of the terrestrial environment on Montserrat has implications for the surrounding marine environment (much of which is an ongoing exclusion zone to the South of the island). While the marine environment has not been a key focus of this project it will clearly need to be included in the strategy for the wider recovery and sustainable development of Montserrat. It is good to see this recognised in the Vision Statement and as part of the Marine Spatial Planning exercise and the Blue Halo Project."

"An important output from the project has been the consultant report (Annex 7) and the promotion of this to discussions with the Government of Montserrat. Further responses to the document were made as shown on Annex 17. This in turn, has led to the creation and agreement of the Vision for the South of Montserrat' (Annex 9). This is more than a vision statement and sets out a framework for subsequent action/management plans."

"a signature of the project has been the continued inclusion and participation of stakeholders from local community to ministerial level. While this might be a positive attribute of smaller, isolated, island communities there is still an important message in terms of project design and management."

“Perhaps the key legacy of this project is the increased capacity, but also the will, to embark on a programme of recovery, habitat restoration and economic development on Montserrat. This will be facilitated by the opportunity to fully adopt and implement the main strategies and agreements that have emerged from the project’s mission and to strive towards the detailed Vision for the South of Montserrat. As a consequence of the significant effort to disseminate and communicate the key project activities and to include local communities at grass-roots level through the Adopt a Home for Wildlife initiative, ongoing engagement with and commitment to, environmental sustainability is likely to endure. Private ownership of large parts of South Montserrat within the current exclusion zone has been addressed through direct engagement and a shared understanding of the importance of these areas for future biodiversity conservation on island including the management of invasive non-native and feral species.”

“The Montserrat Virtual Museum of Natural History represents a significant, secure and accessible biological and education resource that will enable end-users to record new discoveries and changing ecosystems and inform environmental management decisions.

The Adopt a Home for Wildlife initiative is a highly transferable and commendable, community lead scheme to encourage local people to understand and value local biodiversity and plan an active part in its conservation.”

The application to Darwin Plus for immediate follow-on work was unsuccessful. A new application was made in the following Darwin Plus round, whose applications closed on 3rd September 2018. This was after the independent reviewer’s comments were available. At the time of writing, the outcome is unknown. However, in view of the rating of the completed work (see above) and the fact that the new proposal was based on the conclusions of a series of local stakeholder consultations over two years, rejection by Darwin Plus would be illogical.

Nevertheless, UKOTCF is looking to novel funding methods to help continue this important work. This includes via UKOTCF’s new website and other initiatives. The likelihood of success through these routes are, of course, unknown.

Some facts and figures from this project:

- The project enabled €88,810 of additional funds to be sought and received from the European Union for the Montserrat National Trust to set up a native-plant nursery to support this programme;
- 23 native species so far are being cultivated here for use in *Adopt a Home for Wildlife* (fewer than planned, due to seed loss in the hurricanes, but numbers of species will increase over the year re flowering seasons);
- 75 acres (30 ha) are being managed actively for conservation by the community;
- MNT has started to give away native palms, reaching about 100 of them given away before the end of summer;
- MNT opened the (second) greenhouse at the same time as the biodiversity exhibition, in an attempt to get more people interested in native species;
- the team are aiming to give away a thousand plants as they get ready during the summer, and then about 3000 in November, when they add native species to the “Tree Planting Day” organised by the Montserrat Department of Environment (and previously limited to orchard trees);
- over 300 children have taken part in education sessions learning about Montserrat’s biodiversity, including practical work

on cultivation;

- over 13,000 specimen records have been entered in to the database on beetles;
- the project’s most popular Facebook posts were seen by over 4000 people;
- two scientific papers have so far been published on fly species new to science discovered during the project;
- in addition to this partners, Montana State University, have sent information on the portal created as part of the project, which had had some unforeseen delays out of their control (but they have secured extra funding from elsewhere to recover this).

See more on project videos

Many other aspects of *Adopt a Home for Wildlife* continue. In addition, we have made a series of videos about several aspects of this initiative. At present, those available are:

One features the work of the Cork Hill Reunion Committee in restoring the area of their former homes where access has recently been restored:

https://www.youtube.com/watch?v=1L0dFD_PkqU

Another features Dwayne Hixon’s site at Old Road Bay:

https://www.youtube.com/watch?v=gDsDmg_Vrb0

A third features Montserrat National Trust’s native plant nursery, which is vital in supplying the young plants for *Adopt a Home for Wildlife* and other sites:



<https://www.youtube.com/watch?v=2YyBY0F31II>

Especially for those who like an old-fashioned slide-show, UKOTCF’s Chairman gives the background, purpose and overview of activities of *Adopt a Home for Wildlife*:

https://www.youtube.com/watch?v=rVSZUU_NOvo

We look forward to adding further ones soon, including on Tim Orton’s tropical dry forest (see pages 5-6) and the mountain chicken work.

These will be available also through our new web-site, which already has sections on the ongoing work, previous work and Montserrat generally.

Montserrat Governor builds on UKOTCF visit to encourage further collaboration

The Governor, H.E. Andy Pearce and Mrs Pearce took the occasion of the visit to Montserrat of UKOTCF’s Chairman, Dr Mike Pienkowski, to host a dinner for those involved in environmental work, with the intention of enhancing communication and collaboration, in a light and informal way.

Following the Governor's introductory remarks, stressing the importance of the environment and the need to communicate, he asked Mike to speak on the special natural environment of Montserrat and UKOTCF's long support to Montserrat conservation organisations. Mike noted the many collaborations over nearly 30 years, the continuing work and the challenge of funding it, even though most UKOTCF specialist personnel donate their time. He went on to note that, biologically, Montserrat is particularly rich, despite its small size and the loss of habitat to the volcano. It has species which occur nowhere else, like the Montserrat oriole and several species of lizards. Work by Montana State University – as part of UKOTCF's recent and, one hopes, continuing work to help strategically and practically to keep this globally important wild nature in the long term – found that Montserrat has as many species of several taxa as does Dominica, which is ten times larger and rises to higher altitude, providing extra ecosystems. Mike looked forward to UKOTCF maintaining its long-term help to Montserrat, both through visits and continual remote working to progress projects in support of conservation of Montserrat's exceptional environment – for its own sake, for the local quality of life, and for the economic benefits to the local community from the ecosystem services which depend on it, whether this be water, plant products, fish, sustainable tourism or many other things.

Others then took turns during the meal to outline their own projects. One notable feature was the businessman who was bringing in veg-plastic materials to replace conventional plastic and the horrible "clam-shell" food packaging. The Darwin-supported glass-recycling project was also noted, as was the long-term turtle work, dedicated local fund-raising activity, the new mountain chicken work, the swimming and water-based training for children, and of course the work of Montserrat National Trust – as well as several other activities. There was good, lively debate. There was enthusiasm for such a gathering over dinner perhaps every 3 months. Mike offered the services of the UKOTCF Wider Caribbean Working Group to complement more informal internal Montserrat arrangements.

Mike Pienkowski took the opportunity of the visit also for valuable meetings, to follow-up on using results of earlier work and exploring future collaborations with: Hon. David Osborne, Minister of Agriculture, Trade, Lands, Housing & Environment, and Ms Eulyn Silcott-Greaves, Permanent Secretary of the Ministry; Ms Ernestine Corbett, Director of Environment; and Ms Lavern Ryan, Acting Director of Lands & Surveys and Chief Planning Officer; and Mrs Sarita Francis, Executive Director, Montserrat National Trust, as well as follow up with Alwyn Ponteen, Chief Fisheries Officer, his request for UKOTCF advice on turtle conservation.



An informal environmental dinner, hosted by Montserrat Governor, H.E. Andy Pearce (far end of table)

Dr Erica Gibbs, stalwart of Montserrat National Trust



Dr Erica Gibbs. Photo: Jean Handscombe

As this issue of *Forum News* was being completed, we received the sad news of the death of Dr Erica Gibbs. In addition to her own role as a doctor of medicine and the support to her late husband, the Administrator (the then equivalent of Governor) of Montserrat, Erica played a key role in the founding of Montserrat National Trust and its long-term development.

Sarita Francis, Director MNT, said:

With the passing of Dr Erica Gibbs, the Montserrat National Trust mourns the loss of one its main benefactor members and its longest serving volunteer, spanning the years 1970-2018. The Trust was formed and signed into law in 1970 by her husband Dennis Gibbs, a former Administrator (Governor equivalent) of Montserrat. They came to Montserrat in 1965.

Erica became actively involved in the Trust in the early 1980s, serving in the capacities of Secretary, Recording Secretary, and Editor of the Trust newsletter. She served also on several subcommittees for many years and represented the organisation at regional and international meetings at her own expense. Many overseas experts who provided support to the Trust were accommodated gratis at her home in Olveston.

Erica was our greatest champion and was still volunteering in the Trust gift shop up to her brief illness and passing on 8th November 2018. Her friendship, generosity, wisdom, her smile and warmth will be missed by the council, members, staff, and supporters of the Trust. Her contributions to the Trust and to Montserrat are deeply appreciated.

We extend sincere condolences to her family.

UKOTCF's Chairman, Dr Mike Pienkowski, added:

Erica was a quite remarkable person, a small lady with a formidable personality. I was not the only person to admit to being slightly intimidated when I first met her; such was her determination to support Montserrat's National Trust, and encourage others to do so. However, we all soon realised that this determination was backed by a genuine warmth, friendship and generosity. This was built on a wide base of wisdom, knowledge and experience across a range of subjects. She also made the best rum punch most of us have ever tasted! For all these things, Erica will be greatly missed by all who met her – and is a loss also to those who never did. We offer our deep condolences to her family and many friends.

Parliament's Foreign Affairs Committee inquiry: *Future of the UK Overseas Territories*

The House of Commons Foreign Affairs Committee launched an inquiry in July into *The future of the UK Overseas Territories*. This sets out to consider: “the resilience of the Overseas Territories, how effectively the FCO manages its responsibilities towards them, and how it envisages their future”.

The Chair of the Committee, Tom Tugendhat MP, said at the launch of the inquiry: “*The Overseas Territories have a special place in our constitution. They are self-governing but part of the United Kingdom. As our place in the world changes, we need to think about the effect on them and whether the structure of our relationships still work. The Committee will look at these distant parts of our community and look at how we work to support all our communities.*”

Written submission on the following were welcomed:

- The governance of the OTs, including their adherence to human rights frameworks;
- The benefits to the UK and the OTs of the relationship between them;
- The financing of the OTs;
- Representation of the OTs in the UK and in the Commonwealth and other international fora;
- Assets and liabilities (including but not limited to ecological richness and the effects of extreme weather, and natural resources such as minerals and fish).

After the Inquiry was announced, UKOTCF advised its member and associated organisations (insofar as possible in that holiday season) suggesting that they might like to submit evidence directly or offer comments to UKOTCF to consider for inclusion in its evidence. UKOTCF drew attention to this also via its regional Working Groups and various other means.

The submission from UKOTCF largely reinforced material provided to the Environment Audit Committee in previous inquiries, and was based on consultations with its members and associates, conclusions from the 2015 Gibraltar Conference, and the statements from the series of meetings of the UKOT/CD Environment Ministers Council (for which UKOTCF provides the secretariat) – all as ways of incorporating collective views on environmental matters.

We outline here a summary of UKOTCF's written submission as well as its eleven recommendations. The latter are in bold italics below. (For those who wish to read the full submission, they are available online, together with the other 85 written submissions: <https://www.parliament.uk/business/committees/committees-a-z/commons-select/foreign-affairs-committee/inquiries1/parliament-2017/inquiry13/publications/>)

Summary of UKOTCF's written evidence

The UK Government has international responsibilities for UK Overseas Territories (UKOTs) and Crown Dependencies (CDs). Good governance by the UK of its Overseas Territories requires political and administrative structures that promote healthy social, environmental and economic outcomes for the territories. However, all the permanently inhabited territories have their own social, economic and political institutions. This inquiry by the FAC will naturally matter to those who live in the territories, even though, as non-UK residents (but mainly UK citizens), they do not have opportunities to vote in UK elections. However, this inquiry is taking place during the final months before ‘Brexit’. With so much uncertainty about how that unfolds and the consequences

for all parts of the UK as well as the UKOTs and CDs, it would be unrealistic to expect an inquiry to be able to gather sufficient evidence to make many detailed recommendations of fundamental structural changes in the relationships between the UK and its UKOTs.

The decisions as to whether or not a territory is included in UK's ratification to an international convention is a matter for the territory concerned, and that, if UK is asked by a territory government to include it, or not include it, in a convention, that request should be fulfilled. We believe that the level of administration and reporting for a territory to meet convention requirements should be scaled to that territory's size and not necessarily to the scale of Britain itself. Smaller UKOTs and CDs face difficulty in developing and enforcing appropriate environmental policies as they typically have few civil service resources of their own. They also have little access to external resources.

1. UK Government should assist in resourcing UKOTs to fulfil environmental convention reporting requirements and press for these to be scaled appropriately for UKOTs.

In meeting these international commitments, some report on progress is needed. UKOTCF has periodically conducted reviews. Its last one was published in 2016, and included progress against the Environment Charters and the Aichi Targets. It is available to view online <https://www.ukotcf.org.uk/Pages/Category/environment-charter-commitments>

2. UK Government should use UKOTCF's review of progress towards Environment Charter commitments and Aichi Targets, even if simply to assess what further information remains to be collated. UKOTCF recommend also that UK Government fund future studies of this sort at regular intervals, in order to maintain an updated picture of UKOTs/CDs conservation progress including, but not limited to, the marine environment.

The role of the FCO remains an important one, particularly in the good governance of the UKOTs, provision of technical and financial assistance, engaging with other HMG Departments and in its facilitation in ensuring UKOTs interests are recognised in the UK and internationally. However, shortly before the FAC's previous report on this topic, FCO drastically cut its environmental staffing for UKOT matters. This appeared to have been done in expectation that DEFRA would assume responsibility for this aspect. However, it seems that resources were not transferred, and the number of DEFRA personnel allocated to coordination of key aspects in the overseas territories is extremely small, even once this was started after several years of delay. Also prior to FAC's 2007 report, DFID had engaged constructively in environmental conservation in UKOTs, but subsequently reversed this position. This included removing initially half the post, and then the whole post of the officer concerned with the environment in UKOTs, and disengaging itself from engagement with the UKOT conservation bodies including UKOTCF, with which it had previously dealt. The situation was not helped in that, following the start of establishment of good communications between NGOs, FCO, DFID and DEFRA on UKOTs, in 2010, DFID moved its OT Department 400 miles away from the offices of the others, leading to total personnel change, effective loss of coordination, and the loss of interest by DFID in UKOT environmental conservation. The stresses on DEFRA and FCO staff have also led to reduced communications with some NGOs and some UKOTs. An attempt

to increase liaison in this area in bodies based in UK failed largely because UK Government departments did not generally participate, instead delegating to one of their agencies, which was not authorised to address the policy matters which were the subject of the meetings.

3. UK Government should seek to increase collaboration with, and support of, NGOs active in UKOT conservation, to facilitate their highly cost-effective work and long experience of working with UKOT partners.

The importance of environmental impact assessment and good planning policies to international standards, which lead to 'no net loss' of biodiversity, was outlined and the role which Governments can play in making the case for sustainability. The issue of good governance was addressed with some examples of how different approaches can lead to positive or negative outcomes for the environment.

Some of the benefits to the UK and the UKOTs of the relationship between them were outlined including family ties, students studying in UK, wide geographic spread which can enable the UK to influence action on global issues such as climate change.

When the UK leaves the European Union, Gibraltar will lose the only effective technique it has – via EU regulations and procedures – of moderating the environmentally damaging activities of Spain. UK Government should provide additional support to HM Government of Gibraltar, should it be requested. In 2014, HMGOG adopted science-based Marine Protection Regulations. To enforce these, support from UK is needed because of incursions by Spanish fishermen, Spain not recognising British Gibraltar Territorial Waters (BGTW). During designation of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) under EU Directives, it was a requirement for Gibraltar's designations to be passed via HMG. Unfortunately, it took so long in sending these that Spain designated overlapping areas as SACs/SPAs, including in BGTW. HMG then missed the deadline for objecting to this situation, meaning that the EU accepts both the Spanish and the later UK/Gibraltar designations (until the latter no longer apply if the UK leaves the EU).

4. UK Government should fulfil requests from HM Government of Gibraltar in addressing infringements from Spain in British Gibraltar Territorial Waters, as well as facilitating Gibraltar's request to join international environmental agreements, including – but not limited to – the International Commission for the Conservation of Atlantic Tunas and the Barcelona Convention for the Protection of the Mediterranean Sea Against Pollution.

Financing the UKOTs was another area where the environment features highly. This is due to their inability to access a wide variety of international funds because of their status as UKOTs. Since FAC's previous report, two separate sources of modest UK Government funding (FCO/DFID Overseas Territories Environment Programme and part of DEFRA's Darwin Initiative) have been merged into one fund, Darwin Plus. This was done without consultation and has effectively narrowed the range of opportunities and reduced the involvement in decision-making as to funding of those experienced in actually undertaking this sort of work. Increasingly also, available funds are being allocated to UK Government's own agencies (which did not apply for



The members of the House of Commons Foreign Affairs Committee present on 6th November 2018 (in semi-circle, left to right: Bob Seely MP; Rt. Hon. Priti Patel MP; Chair of the Committee, Tom Tugendhat MP; Clerk of the Committee; Stephen Gethins MP; Mike Gapes MP) interview Dr Mike Pienkowski (left) and Jonathan Hall. Photo: parliament.tv

funding to some predecessor funds), with reductions in funding to NGOs – which can give very high value for money because of major donated resources which funding can release. The UKOT Environment Ministers Council has expressed concern about these aspects.

5. UK Government should address the recommendation of the UKOT/CD Environment Ministers Council and discuss with them a better approach to granting decisions, involving UKOTs as well as more persons with wide experience of operating UKOT conservation projects.

It is unfortunate that the fund set up by the European Commission Biodiversity and Ecosystem Services in Territories of the EU Outermost Regions and Overseas Countries and Territories (BEST), after many years of lobbying by UKOTCF and others including French and Dutch equivalent bodies, is unlikely to be available to UKOTs after UK leaves the EU. This is despite the efforts of those in the UKOTs involved in developing this pilot fund, which included the publishing of a series of ecosystem profiles and the design and implementation of several on-the-ground projects to benefit biodiversity. This source of funding has been very popular in the UKOTs and has enabled resources to be deployed directly to many NGOs in order to carry out on-the-ground projects a varying scales: swift (<€50k), small (>€50k) to medium sized grants (>€100k).

6. An additional fund of at least the same value to previous EU funding should be made available by UK Government to those undertaking conservation work in the UKOTs.

In relation to climate change and the wish of UKOTs to transition to renewable sources of energy, there seems to be an apparent reluctance by DFID to support non-fossil-fuel energy generation on Pitcairn. At present, not only does Pitcairn depend on fuel oil, but this must be shipped from New Zealand across most of the Pacific to reach Pitcairn. At the request of Pitcairn, as long ago as 2010, UKOTCF helped the island develop an initial proposal to explore renewable energy sources. However, DFID could not be persuaded to support this for many years. Eventually, the European Union agreed to support initially exploration of feasibility, and then to meet two-thirds of the cost.

7. DFID should now commit to funding the remaining one third of Pitcairn's renewable energy installation, as also recommended by the UK Overseas Territories Environment Ministers Council in 2017 and 2018.

While we welcome the steps taken as part of the *Blue Belt* Programme, we expressed some concern that this should not take away from the resources deployed to conserve biodiversity in the UKOTs terrestrial environments.

8. UK Government should increase its funding for terrestrial conservation in the UKOTs so that threats to endemic and other restricted species and ecosystems can be addressed.

DFID seems also not to understand current trends in transformational investment, which is directly related to environmental sustainability. The World Bank and the non-governmental investment banks coming together in the International Finance Corporation (IFC) have increasingly required strong environmental safeguards on their financing support. However, when two senior advisers to these bodies happened to be present (providing *pro bono* support to other work on Montserrat) during the initial presentation by DFID to their annual budget visit to Montserrat in late 2016, they were shocked that this made no mention whatsoever of environmental matters. Not only is this bad for the environment, but it is also minimising the chance of Montserrat (and presumably other UK overseas territories) securing transitional investment in such sources. This is at odds with DFID's Overseas Territories policy, which aims to attract investment and stimulate private sector-led growth in the aid-dependent Overseas Territories, while still providing direct support. The Independent Commission for Aid Impact has previously shared the view that Montserrat is not being served well by DFID. It is a matter of great concern that the advice being given by DFID to at least some UKOTs about attracting transitional investment seems to be decades out of date, by making no mention of environmental factors which most international investors now insist on being central.

9. DFID should take steps to bring its advisers up to date on the central nature of environmental aspects in international transitional funding.

Since the previous FAC inquiry, and subsequent Environmental Audit Committee inquiries, there has been little movement in introducing freedom of information legislation in those UKOTs, which have not yet done so.

10. FAC reiterates its previous recommendation that FCO should strongly encourage all Overseas Territories which have not yet done so to introduce freedom of information legislation

The importance of NGOs to conservation efforts in the UKOTs was repeated. The recent increase in funding for oceanic marine conservation is welcome but, as we understand it, this money has largely gone to UK Government's own agencies, not to the NGOs and UKOT conservation bodies which have been struggling for years to conserve these assets. In addition, UK Government agencies did not previously apply for the UK Government grant funds for UKOT conservation (EFOT, OTEP, now Darwin Plus), but now do so and indeed receive significant funding from it. This squeezes out NGOs – which tend to multiply the funds by pulling in in-kind and other additional support – but cannot do so without basic grant support. Thus overall cost-effectiveness is being reduced by this change in UK Government practice. There are also questions of conflict of interest when UK government bodies are both the decision-maker and applicants competing with others.

11. The capacity of NGOs to deploy their skilled volunteer capacity and huge cost-effectiveness should be restored by UK Government returning to the situation whereby its own agencies do not apply for the limited grant funds available for conservation in the UKOTs.



Dr Mike Pienkowski, Chairman UKOTCF, when asked at the start of the session to outline the biodiversity found in the UKOTs said: "In terms of biodiversity, the normal relationship is reversed. Britain is important, but it is a minor player compared with the Overseas Territories in world terms, and that is a point of some reflection. You were talking about Montserrat earlier and, as it happens, I have just come back from Montserrat, having been running some programmes there. To take that one example, which is tiny—it is 11 miles long—it has one unique bird species, another unique sub-species of bird, two unique reptile species, five unique sub-species of reptile, three unique plant species, and over 1,200 invertebrate species, of which 81 occur nowhere else in the world—they are endemics in our term—and that is just one of our territories. That richness is reflected in many others. There are some things in both our written submissions about this overall, but it is worth adding that, for example, large sections of "Blue Planet II" and "Planet Earth" were filmed in our Overseas Territories, although I do not think they said so on the commentary, so it is certainly worth noting that."

Jonathan Hall, Head of the UK Overseas Territories, RSPB, added: "Many of these territories have natural resource-dependent economies. Several territories in the South Atlantic derive a vast proportion of their GDP from fisheries. Many more territories derive a very significant proportion from tourism or their natural assets. There is a great need to invest in those underlying assets, upon which those economies are based. There is a common issue of limited capacity to manage and make those investments and the funding to secure them. Across the board, they face similar threats from climate change and invasive species, because as islands they are hotbeds of unique species and evolution. Uncontrolled development with limited planning frameworks is also a difficult area in many of the territories." Photo: parliament.tv

We concluded by saying how massively dependent the local communities are on the environment in the UKOTs. Their fragile ecosystems, which support local economies are vulnerable to climate change and events such as Hurricane Irma and Maria and every effort should be made by HMG to support them.

Oral evidence and next steps

In late October, UKOTCF was asked to provide oral evidence to the Committee in the session on environment together with RSPB's Jonathan Hall. Video recordings (<https://www.parliamentlive.tv/Event/Index/e2fd46fe-6270-4c04-a122-da37f8e5724a>) and transcripts (<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/foreign-affairs-committee/the-future-of-the-uk-overseas-territories/oral/92311.pdf>) of this session and other sessions are also available online. The other half of this session was on the economy, deliberately so as to stress sustainability.

South Georgia stakeholders meet in London

On Thursday 27th September, the Government of South Georgia and the South Sandwich Islands (GSGSSI) held its annual stakeholder meeting at the Foreign and Commonwealth Office (FCO). It was chaired by Helen Havercroft, new CEO of GSGSSI. Catherine Wensink and Ed Lim of UKOTCF participated. The meeting was opened by Jane Rumble, Head of the FCO Polar Regions Department, who noted that there were more people in the room than would be on South Georgia this year; this represented a growing interest in South Georgia. Nigel Phillips CBE, Commissioner for the South Georgia and South Sandwich Islands (SGSSI) and Governor of the Falkland Islands, then summarised the activities and achievements of the past year, including the new four-year toothfish-licensing scheme for the South Georgia and South Sandwich Islands Maritime Zone. He said it was fantastic that the island had been declared rat-free and congratulated the team effort. In order to protect the gains made, it was important to ensure that biosecurity measures were in place, especially with the predicted increase in tourism. He cautioned that, with an increase in visitors, there was a need to ensure that activities did not impact negatively on its unique character, pleading: “Don’t love South Georgia to death.” Of the fisheries, he said that science must underpin every decision and would be the building blocks to success.

The meeting commenced with a focus on biosecurity. Alison Neil, from the South Georgia Heritage Trust, gave an update on the successful rodent eradication project. Complete eradication represents a monumental achievement and it was excellent to hear that South Georgia pipit and South Georgia pintail numbers are already recovering. One of the SGHT Trustees had recently visited and reported that, in some areas, the sound of pipits was drowning out the sound of elephant seals. SGHT is now focusing its efforts, including its fundraising, on assisting with biosecurity and pre-border measures are considered the only feasible way to achieve this. Following on from this, Helen Havercroft commended the high level of awareness, engagement and collaboration between stakeholders regarding biosecurity which is now needed to ensure no rats return, but stressed the importance of improving and expanding biosecurity systems and facilities in order to cope with



“Team Rat” surveyed the island, sometimes in rather challenging conditions, to check for rat-free status. The monitoring devices were a network of wooden stakes (one at bottom right of the photo), with a wax tag and a square piece of plastic with peanut butter smeared inside to attract rats. Once each was numbered and in the ground, the team marked it on GPS, walked 200m to place the next. Photo: Matthew Phillips & South Georgia Heritage Trust

the expected increase in traffic to and from South Georgia. Helen reported on a recent review of biosecurity in SGSSI, undertaken by the GB Non-Native Secretariat (GBNNS), *Tackling Invasive Non-Native Species in the UK Overseas Territories: Technical Support to the Government of South Georgia and the South Sandwich Islands*. This included 27 recommendations to improve the biosecurity systems and identified weak points. This, alongside a ‘horizon scanning’ workshop in October 2018, which aimed to identify the priority non-native species most likely to arrive, and will be used to guide efforts to improve biosecurity. In a review of all the UKOTs, South Georgia fared remarkably well in terms of countering pathways for invasion, as it was possible to reach only by sea. However, having said that, rats are able to swim up to 3 km and vessels docked close to shore have to comply with the same measures as those landing. There is a risk that rats could be re-introduced via the Falklands Islands, but there are high levels of awareness, engagement and collaboration taking place.

GSGSSI is looking into expanding the biosecurity detector-dog programme, in collaboration with various stakeholders and Working Dogs for Conservation (WD4C).

Stakeholders then heard about opportunities for increased tourism in SGSSI and its potential for adventure tourism, calling South Georgia a ‘world class adventure resource’ that is still in the ‘golden age’ of mountaineering due to many peaks remaining unclimbed. However, it is vital that tourism is suitably managed to ensure that its environmental impacts are minimised. In relation to this, Helen Havercroft spoke about a project, led by the South Atlantic Environmental Research Institute (SAERI), to map the coastal margins of SGSSI in order to identify and manage the vegetated terrestrial areas. Furthermore, Dr Damon Stanwell-Smith of the International Association of Antarctica Tour Operators (IAATO), informed stakeholders about the association’s involvement in promoting responsible travel in the Antarctic, vessel coordination, scientific support, education and outreach. He reported on a regulated permit system for vessels visiting SG, which was introduced 2 years ago. It takes into account the impact the proposed activity of the permit holder would have on the environment. Understanding patterns of growth is an important part of IAATO’s work. They report that tourism in South Georgia is growing; currently there are 30 bespoke polar expeditions cruise ships being built (this information can come from shipyard reports/announcements). These vessels are specialised with low emissions and with biosecurity facilities built-in.

An app has recently been updated which includes lots of information on South Georgia. It was originally designed to provide information to the hundreds of IAATO guides, which



South Georgia pintail, one of the species benefitting hugely from the rat eradication. Photo: Dr Mike Pienkowski

accompany the vessels, but it has proved very popular with all visitors.

Stakeholders were also updated on the state of SGSSI's fisheries and their management. Research is being undertaken to increase knowledge of the ecology of the South Georgia and South Sandwich Islands Maritime Zone, and to ensure that fishing is conducted sustainably. One project, which is part of the *Blue Belt* programme, is to study the sea-bed environment and identify any impacts of longline fishing, using deep-water cameras. Peter

Thomson, Operational Director at Argos Froyanes Ltd, spoke about the company's two new fishing vessels and commitment to sustainable fishing and research, with each new vessel containing berths and space for up to six scientists. Following on from this, Jason Bryon of Archipelago Marine Research reported on the use of electronic monitoring systems, in the form of CCTV cameras and sensors, on board each fishing vessel to ensure compliance.



Humpback whale near South Georgia. Photo: Dr Mike Pienkowski

There was also a talk by Dr Jennifer Jackson of the British Antarctic Survey, who spoke about the BEST-supported Whale: SWIM project. This project is looking to conduct a 'health check' of the southern right whales which feed around South Georgia, measure their genetic diversity and estimate population size.

Finally, Helen Havercroft gave an update on plans regarding heritage conservation, including the development of the *Grytviken Conservation Management Plan*.

International Year of the Reef: Organisation in Focus – Turks and Caicos Reef Fund

More than 300 km of barrier coral reefs surround the Turks and Caicos Islands, which are considered to be some of the best remaining reefs in the Caribbean region. Thanks to the efforts of dedicated volunteers, more information is being gained about their distribution and health – and effort is being made to protect them. 2018, which is the Year of the Reef, has been a particularly busy year so far for the leading environmental non-governmental organisation, the Turks and Caicos Reef Fund, with many successful projects implemented or under way. Some of these achievements are highlighted:

- Helped to raise \$54,500 in hurricane relief funds for the Turks & Caicos hurricane recovery effort.
- Completed a project funded by the Cornell University Sustainable Asset Management Program (STAMP) which focused on identifying eco-tourism business opportunities for South Caicos residents and helped five individuals prepare preliminary business plans for new eco-tourism businesses on South Caicos.
- Completed a comprehensive underwater survey of the pristine coral reefs of the coast of East Caicos to help the Turks and Caicos Islands Government Department of Environment and Coastal Resources (DECR) develop a management plan for the area.
- Continued an EU funded (through the BEST scheme – see *Forum News* 46) coral nursery project with a total of 10 nursery structures installed (6 off the NW Coast of Providenciales and 4 off the coast of Grant Turk).
- Renewed its Memorandum of Understanding with the Department of Coastal and Environmental Resources (DECR) to extend management of the dive, snorkel and yacht moorings throughout the TCI.
- Facilitated the participation of the US Fish and Wildlife Service in the annual Piping Plover Migratory Bird Census.
- Continued educational outreach programmes with Clement Howell High School and British West Indies Collegiate.

- Secured funding to initiate a coral reef health monitoring effort in the Princess Alexandra National Park and surrounding waters.
- Secured a financial commitment to revitalise and improve the Smith's Reef Snorkel Trail.

Chairman Don Stark reflected on the efforts over the last 8 years



East Caicos reef survey: the Turks & Caicos Reef Fund (TCRF), the only active environmental non-governmental organization in the Turks & Caicos Islands, in association with SWA Environmental and Marine Environmental Services, completed a week of quantitative coral-reef field studies on East Caicos in August 2018, facilitated by Explorer Ventures and the live-aboard dive vessel Turks and Caicos Explorer II. Studies were made possible by a grant from the EU BEST 2.0 Programme, entitled "Understanding East Caicos KBA's Corals and Coasts: A Key to Safeguarding TCI's Future." The grant seeks to establish an ecological baseline for East Caicos coral reefs, as well as understanding how people use them, in order to inform sustainable management and use. TCRF thanks the crew:- Kathleen McNary Wood, Marsha Pardee, Richard Green, Tina Randall, Alizee Zimmermann, Mateo Turks Slat, Richard Archer, Oshin Whyte, and all the other volunteers.

Photo: David Stone for TCRF

which have paid off, as now TCRF is becoming recognized as a lead research, advocacy and education provider related to the TCI environment: “We are pleased that securing grant funding for various projects has been successful, but we still need the support of local residents and businesses in order to keep up our efforts.

“Our goal from day one was to invest at least 85% of every dollar raised into the projects we undertake. Every year since we started,

we have met or exceeded that goal with 89% of total expenses invested into specific projects this year. We keep our overheads low by relying heavily on volunteers to help us complete all of our projects and we are greatly indebted to all those volunteers.”

TCRF has an active Facebook page, which is used to promote their work and to share information on all matters relating to ocean health and sustainability.

Ramsar COP13 in Dubai

The 13th Conference of the Parties of the Ramsar Convention took place from 20-29 October 2018 in Dubai. Every three years, representatives of the governments of each of the Contracting Parties meet as the Conference of the Contracting Parties to agree on a work programme and budgetary arrangements for the next triennium and to “consider guidance on a range of ongoing and emerging environmental issues.”

The Convention on Wetlands (called Ramsar after the city in Iran where it was signed in 1971) is the main international forum for action on wise use of wetlands and one of the oldest international environmental treaties. The United Kingdom has the most Wetlands of International Importance (Ramsar Sites), with 175 sites in total. There are 24 designated sites in the UK Overseas Territories and Crown Dependencies. Sombrero Island on Anguilla is the most recently added site and was added since the last COP. A study by UKOTCF, for the governments of UK, UKOTs and CDs and in conjunction with local organisations, identified many additional sites in the UKOTs and CDs which should be designated. UKOTCF has helped territories progress these, and continues to do so.

The UK’s delegation included seven people from Defra’s international team and its agencies. A number of NGOs also attended the COP as observers. In advance of the meeting, the UK Government’s Department of Environment Food and Rural Affairs (Defra) organised a pre-COP meeting with NGOs in order to discuss how to strengthen co-operation in order to achieve shared aims and targets. UKOTCF took part in this meeting, providing some background on Ramsar in the UKOTs/CDs and

some information relating to the agenda, notably turtle nesting sites (for which Senegal and France had put forward a draft resolution), as well as some areas where the UK could be leading, e.g. managing sites in remote areas.

For more information, including the review of UKOT/CD Ramsar Sites, see: <https://www.ukotcf.org.uk/ramsar-convention-on-wetlands>.



Flamingo, great egret and black-necked stilts feed beside the road at Red Salina, Grand Turk. The salinas and wells of Grand Turk and Salt Cay are among several sites in the Turks & Caicos Islands waiting for designation as Ramsar Sites. At these internationally important sites, bird species normally shy of people throughout the rest of their range, are used to people, and allow a close approach - great for both novice and experienced bird-watchers – see page 1. Photo: Dr Mike Pienkowski

Dark Sky status for Pitcairn following in footsteps of Sark?

It was last April on a beautiful evening in Alderney, at the meeting for Environment Ministers (*Forum News 47*), when Richard Axton of Sark discussed the staggering light-show, with which his island is now becoming synonymous and the reason for it becoming one of only two island Dark Sky sites (the other being Coll in the Inner Hebrides of Scotland). Michelle Christian, Natural Resources Manager for the Pitcairn Islands, could relate to a number of challenges, which were a daily part of living on a small island, but one they both shared and cherished was the night display of stars viewed due to lack of light pollution. The Pitcairn Island Development Plan aims to make the most out of tourism opportunities to enable the island to be economically sustainable and

this could certainly be a unique feature given that there are few Dark Island Sanctuaries in the Southern Hemisphere.

This year, the Pitcairn Tourism Department is aiming towards Dark Sky accreditation. The certification process is overseen by the Arizona-based International Dark-Sky Association (IDA), in order to protect against light pollution and preserve the night sky.



Part of the Milky Way

John Barentine, IDA’s Director of Conservation, has said that Pitcairn’s application is a valid one given the islands’ isolation and quality of the night skies. He believes that Pitcairn just needs to make the world aware of its great resource.

Hopefully, this process will be complete by the end of 2018 in preparation for a total solar eclipse in 2019.

Continuing to promote and protect biodiversity in the UKOTs online

The Forum website has been online since the 1990s and has functioned as a place for looking up material, initially designed for conservation practitioners and researchers, but soon widely used by the general public too.

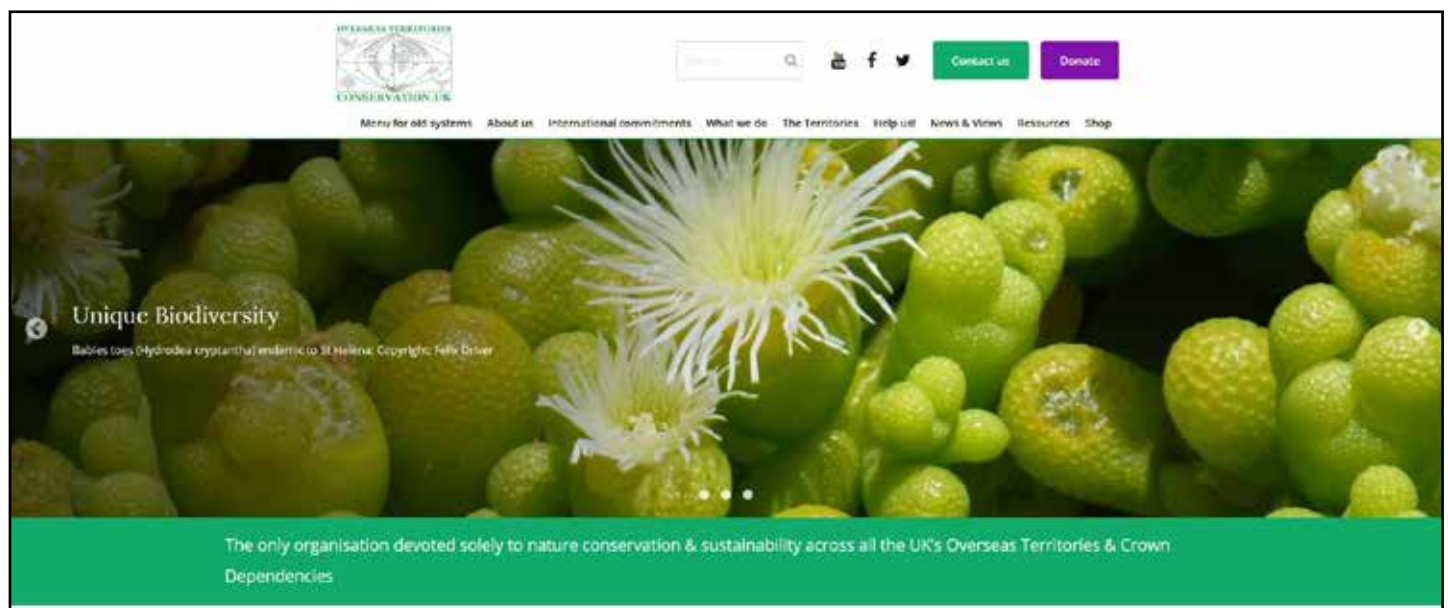
The original website was designed over 20 years ago, mainly to fulfil a need to exchange information between conservation practitioners. Public use and selling via website was, at that time, more the exception than the rule. Over time, the website has become used as a source of information by a much broader audience – but was not optimised to allow the Forum to benefit from that. The earlier role of the website is arguably the most important function particularly because information with regards to the UKOTs and CDs is limited.

In 2017, UKOTCF was awarded a grant from the Transform Foundation for website redevelopment. Transform Foundation provides information technology grants to charities in order to work with its technology partner, RaisingIT, to “make a step change in digital and online marketing”.

The redesign of the new site gave us an opportunity to improve and build on the information we have, where practicable, while adding modern and updatable functionality for wide public awareness and fundraising capabilities. Discussions between the team noted some of the functions a new website should maintain as well as potential improvements and additions. Some of the priorities were: to link information to fundraising and conservation efforts; to improve access to historical archive of information for conservation practitioners, decision-makers and public; to integrate social media and YouTube videos linked to website; to add features not currently being fully utilized including: linking people with stories, travel, mailshot capacity, capacity to fill in Gift-Aid forms online.

The first stage after being awarded the grant was to take part in a workshop, together with other NGOs (working in other fields), to develop a strategy for the new website. One of the major strengths of the RaisingIT platform is the ability to interact with social media and information online. Another is that their sites are designed to be mobile responsive. This is important because since 2017, Google has penalised sites which are not designed to be viewable on smart phones or tablets (things which did not exist when our earlier website was designed). At the same time, they also provide assistance with certain aspects of the new rules around General Data Protection Regulation (GDPR) which came in to force in May 2018.

By August 2017 we had completed the site design by working with the web-designer. The structure was in place and so we moved in to the next phase, which was to populate the site with content. Seven UKOTCF personnel received the training on how to populate the site. A plan of how to divide up the work was developed, but was initially quite slow to implement due to deadlines of ongoing project proposals and reports, which had to take priority.



Part of home-page

It was planned all along that the new website was not going to be made live until it could access material available on the original site, either by transferring and updating that material or including links to it from the new site. The original site will continue to run so that links are not lost and also because constraints on the new platform prevent our original intention of redirecting existing links into the new site. Also, a few features cannot be implemented on the new platform but, for these, the new site will include links directly to the correct page on the original site.

The new site www.ukotcf.org.uk went live in June 2018. Although there were a few teething problems which were resolved within a few days, and we are told that in just over a year from the grant being awarded to the site going live, this is pretty good going for converting an existing site with much content.

During the process we realised yet again how much support we had received over many years from the designer and long-term manager of that original site (still at www.ukotcf.org), John Wheeler. John, although now essentially retired, is continuing to help us with features still on the original site. John encouraged and advised on the transfer, on a largely voluntary basis, and continues to provide support for the features remaining on the original site.

Others included in the project are Mike Pienkowski, Catherine Wensink, Wylie Horn, Nicola Weber, John Wheeler, Ann Pienkowski, Eric Boyd, Iain Orr and Ashleigh Atkinson.

Our home page is now vibrant and engaging and in a modern style (even if a few of the oldies miss the compact style of the original site!). We have ensured, for example, that all the information with regards to International Conventions and the Environment Charters

have prominence as they are still recognised by many as important in terms of the commitments to the environment where legislation locally may be lacking.

Environment Charter Commitments

The Environment Charters signed in September 2001 between the UK Government and the Governments of UK Overseas Territories (UKOTs) are important documents, which encapsulate the shared responsibility of the UK Government and the Government of individual territories for the conservation of the environment in the UKOTs and international commitments to this.

For Multilateral Environmental Agreements such as the UN [Convention on Biological Diversity \(CBD\)](#), it is the Government of UK, which lodges – and is accountable for – international commitments, but the legislature and executive of each territory, which are responsible for the local implementing legislation and its enforcement. The Environment Charters were created, to reflect these responsibilities, but the point applies equally to the relationships between UK and those territories which do not have Environment Charters.

One of the core elements of the Charters is a set of Commitments by each territory government. These Commitments were not new with the Charters, but brought together existing commitments under other international measures. The other core was a set of corresponding Commitments by UK Government. This section provides some background on their inception and progress in implementing them.



Implementation Progress
Reviews of progress in implementing the



Developing Strategies for Action to Implement Environment Charters



UK Overseas Territories and the Environment Charters

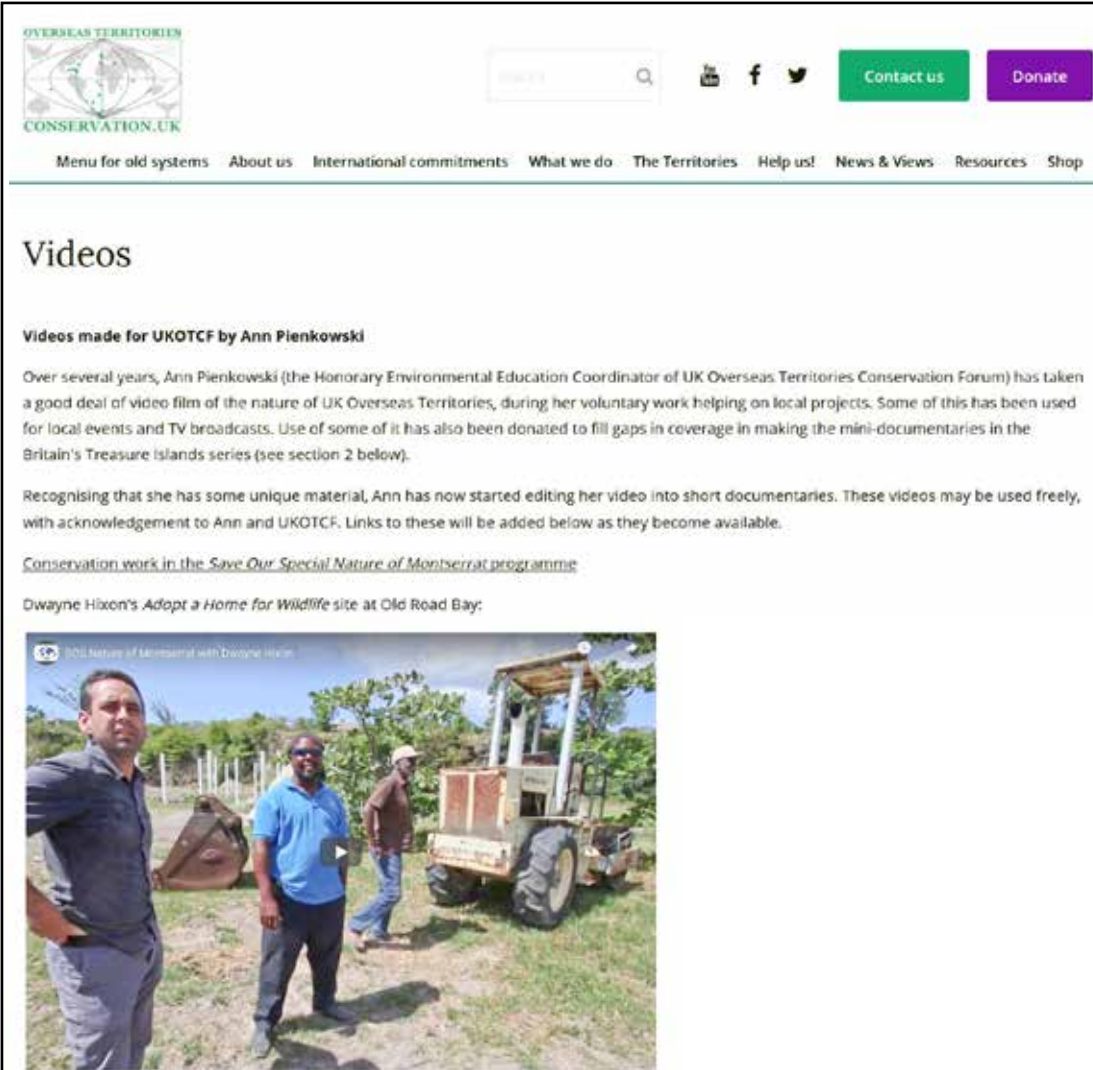
Environment Charter menu page

Users now have the ability to sign up seamlessly to newsletters and make one-off and regular donations. We also have a shopping cart which enables us to sell books in either physically printed or a downloadable version without having to go to a third party website.

Youtube videos can be embedded into the pages, which is a feature we are making good use of in the media section. Both Ann Pienkowski's films and those made by Stewart McPherson for Britain's Treasure Islands appear prominently.

We are able to create appeals and campaigns, which can then be integrated into information pages or projects.

There is still some work to be done on the site – and indeed further improvements will continue indefinitely – but we have launched



Part of video menu page

the site with virtually all functionalities the original site had, and with some exciting new ones. We are still exploring the power of social media in starting new conversations and engaging supporters and the ways in which we can do this through our site.

A mechanism has been created for providing feedback on the website, which we welcome. This is found at the bottom of the new site.

Data Protection

In May 2018, the General Data Protection Regulation 2016/679 came into force. GDPR is a regulation in EU law on data protection and privacy for all individuals within the European Union and the European Economic Area. It addresses also the export of personal data outside the EU and EEA areas.

As a UK registered charity, UKOTCF reviewed the information available on how charities should prepare for the GDPR. Understanding the requirements was not

straightforward, but it did give an opportunity to reflect on how we contact people, what we contact them about and how we store their personal data. We wrote to all our contacts in order to gain consent to contact them and we think this has worked well.

The new website includes updated Terms and Conditions, Privacy Policy and Cookie Policy, with relevant reference to GDPR, using templates suggested by RaisingIT, our website platform host. Each person visiting the site from now on will be asked to accept these when they first visit. Whilst considerable effort has been made to comply with the new rules, the Controller in the UK, the Information Commissioner's Office, has indicated that its main targets are huge organisations (fines for breaches can be 4% of turnover), and it will not be targeting small bodies which are taking steps to implement progressively.

A relatively small proportion of our network maintain contact with us via email or other means but not the web. We have tried to contact all these by other means, and we are grateful for all those who have responded with a simple email of authority. If you have somehow slipped the net of either a website sign-in or sending an approving email to Catherine Wensink (cwensink@ukotcf.org), you are requested to send her a simple email along the following lines (which you can copy and paste into your email):

"I hereby give consent for UKOTCF to:

1. Handle, store and process my personal data necessary to keep me on the circulations; 2. Continue to send me circulations via email."

Local residents concerned at proposed loss of turtle-grass area in Grand Cayman

Edited from The Cayman News Service report in November 2012:

West Bayers have made it clear that they do not want government to approve the coastal works application being made by the owner of Calico Jack's to remove almost 180,000 sq.ft of turtle grass and build a jetty along Barkers Beach. At a local public meeting on 20 November 2018, residents were urged to send in their objections to the ministry, and lobby government to object to the application as, not only do they vehemently oppose the removal of turtle-grass from the area because of the negative impact to the marine environment, but also have fears this project would open the door for much more development.

Dozens of people came out to the meeting, with a significant number of young people, to make it clear they want some parts of Grand Cayman to remain in its natural state. Ken Hydes, who works for Dart Real Estate, the owners of the land where the proposed removal would take place, attended the meeting to speak for the proposal. He minimised the impact and implied that the removal would be done following best practice.

The coastal works application is being made by Handel Whittaker, the owner of Calico Jack's, a beach bar that has been on Seven Mile Beach for years but is now on land owned by Dart. The lease for the bar at the popular tourist spot ends next year, and, given the bar's proximity to the Kimpton Hotel, Dart's first flagship luxury resort on Seven Mile Beach, the developer is keen to move the bar, which is a hub for cruise passengers in the day and younger revelers at night, away from his high-net-worth guests.

Consequently, Mr Whittaker was offered a lease on land owned by Dart in the unspoiled beach environment of Barkers. He has now made a coastal works application to remove a huge area of the turtle-grass for swimming and to build a dock to allow small boats for water sports and excursions.

Answering questions about the application, Mr Hydes said that the removal of the turtle-grass was necessary to recreate the

experience of Seven Mile Beach and expectations of guests; this infuriated the majority of those at the meeting. Most of the people who spoke made it very clear that the idea of removing the grass was unconscionable and that Barkers was not, and never could be, Seven Mile Beach.

West Bay residents spoke of past mistakes over turtle-grass removal that led to the erosion of beaches in both South Sound and Bodden Town. They pointed to the massive environmental impact removing so much turtle-grass, as it provides a nursery for marine life and is home to a massive array of creatures that help feed the nearby reefs.

MLA Bernie Bush, who represents the constituency of the project's location, urged people to show their opposition, and said it was time to focus on overnight tourism, as he defied the stance of government in which he still serves on the cruise port as well as objecting to this project, which will cater largely to the cruise sector. Mr Bush made it clear he would lobby his colleagues on the government benches.

CNS has learned from other sources that Health Minister Dwayne Seymour, who has responsibility for the environment, appears to be already inclined to support the application, despite its potentially catastrophic environmental impact.

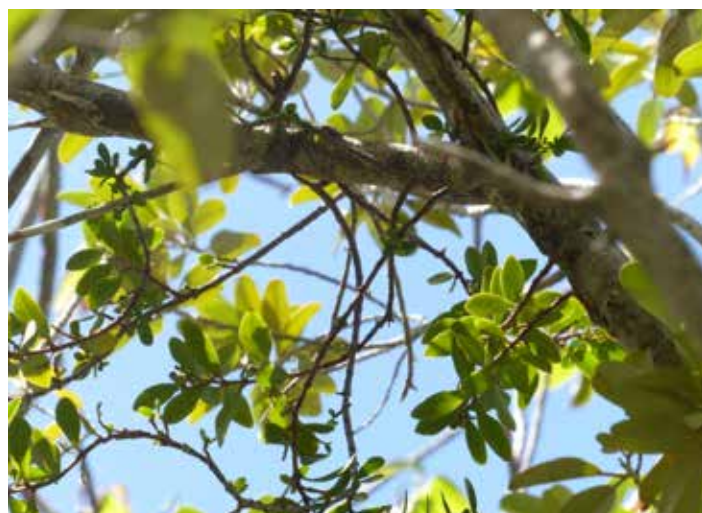
Unlike planning applications, there are no limits on whose objections can be considered for coastal works licence applications, which are ultimately decided by Cabinet. In the first instance, the Department of Environment is tasked with undertaking a review of the application and to assess the environmental impact and complete a report for the National Conservation Council, which will then give its recommendations to Cabinet.

More information: <https://caymannewsservice.com/2018/11/west-bayers-barkers/>

Little Cayman mistletoe re-discovered

Back in 2014, Cayman's Department of Environment Terrestrial Unit, together with Royal Botanic Gardens Kew, embarked on a project to map vegetation in the islands. During this project they were able to predict where the islands endemic mistletoe *Dendropemon caymanensis* might be found. However, it had eluded the team. In January 2018, while looking at some trails on Little Cayman that had recently been opened up, a team including Stuart Mailer of the National Trust for the Cayman Island found the plant. It has since been found in 7 locations.

Read the full article the DoE's excellent Flicker Magazine <http://doe.ky/wp-content/uploads/2018/04/Flicker-36.pdf> .



Dendropemon caymanensis is here seen in the first photographic evidence of its existence. Photo: Stuart Mailer

Personnel changes at the Forum

Many thanks

In December, Liz Charter steps down from Council after many years of voluntary service in that capacity, and even longer as a partner leading conservation work in the Isle of Man.



In 1998, Liz and her family moved to the Isle of Man to set up the statutory nature conservation office within the Department of Agriculture, Fisheries and Forestry. In this period, amongst many other things, she arranged the designation of the Isle of Man's first Ramsar Convention Wetland of International Importance and worked with UKOTCF to identify other proposed sites, negotiated and put in place a biodiversity strategy, and arranged for the Isle of Man to join UK's ratification to the Convention on Biological Diversity. This was the first time that a UKOT or CD had joined UK's ratification, rather than being included from the start, and involved pioneering many aspects of conservation, diplomacy and

administrative blockages. She has since helped other territories navigate this route. She has been involved in regional marine spatial planning discussions in the Irish Sea, and pioneering work on working with the fishing industry to establish protected areas, work that the colleagues whom she recruited continue.

After 18 years as Principal Biodiversity Officer for the Isle of Man Government, Liz is now a freelance island biodiversity consultant. Her career in nature conservation spans 30 years, working first as a freshwater ecologist with the former Nature Conservancy Council. She established the successful Orkney Farming and Wildlife Advisory Group where she worked for 10 years as an adviser, publishing a handbook for farmers and introducing whole-farm nutrient balances to reduce pollution to lochs.

Liz served as the chairman of the UKOTCF Europe Territories Working Group until 2014 when she took over the Chair of UKOTCF, until 2016. We look forward to continuing to work with her.

We say thanks and farewell also to two volunteer Assistants.

Avishka Sendanayake (Environment Assistant) has helped with a range of topics including climate-change and renewable energy, virtual tours, help with meetings and many others. In addition to other volunteer roles, Avishka volunteered for UKOTCF while she was studying for an MSc in Climate Change and Sustainability at Brunel University. With her studies complete, Avishka has now returned to her native Sri Lanka, and we wish her well in her future environmental work.

Eleanor (El) Comley (Conservation Assistant) worked a range of issues, particularly in support of the Wider Caribbean Working Group. In parallel with helping UKOTCF, she volunteered also

for a range of other organisations and worked part-time teaching physical outdoor activities through her employment as an Activity Instructor in Sheffield. El has now taken on more full-time working, and we wish her well maintaining her outdoor and wildlife interests.

Peter Beckingham joins the Council



H.E. Peter Beckingham (right), then Governor of TCI, receives from Dr Mike Pienkowski a set of UKOTCF/TC National Museum TCI bird guides at their launch and at the opening of the UKOTCF/TCNM wise-water-use garden (with one of its information boards behind).

Copyright: Ann Pienkowski

Peter Beckingham was appointed to the Council of the UK Overseas Territories Conservation Forum in July 2018. He was Governor of the Turks and Caicos Islands for three years, from October 2013 to October 2016. His previous positions in the Foreign Office included Ambassador to the Philippines (and non-resident Ambassador to Micronesia, Palau and the Marshall Islands), and Deputy High Commissioner in India.

Peter worked closely with UKOTCF personnel and their related organisations on the islands. He helped to launch, and was an enthusiastic advocate, of their series of books on bird-watching in TCI, and supported the Turks & Caicos National Museum, which promoted the island's environment. Peter and his wife, Jill, participated in voluntary island clean-ups, and they walked some 80 kilometres across all the six populated islands for three consecutive years to raise money for local NGOs, including the Turks & Caicos Reef Fund, of which Peter was a Patron. In the Philippines, Peter was also a Trustee of Coral Cay Conservation, working to protect the country's superb reefs from damage. In many of his diplomatic appointments, including to the three Pacific Islands, which share many environmental challenges in common with the UK Overseas Territories, and which Peter visited on several occasions, he spent a good deal of time – and occasionally HMG funding – helping to develop environment projects with UK NGOs.

Commenting on his appointment as a Trustee of UKOTCF, Peter said: "I was thrilled to be asked to join this valuable and important organisation. This will give me an opportunity to continue my links to TCI, and some of the other Overseas Territories I have visited, and remain involved in the vital task of helping to preserve and sustain their environmental beauty. TCI's slogan of 'Beautiful by Nature' is one it must work hard to retain".

Raising Capacity within the Forum

In September, several Conservation Assistants joined the Forum as volunteers, in order to raise the capacity and provide opportunities for new partners to be involved in its work. They will all be involved in different tasks and we hope will stay with us for at least six months.

Edward Lim



Edward holds an MBiolSci in Ecology from the University of Sheffield. After graduating, he spent time working for the University of Sheffield on a project investigating the diversity of invertebrates in urban green spaces. He then went to Costa Rica where he worked as a field biologist for the Wild Macaw Association and, after that, worked as a research assistant for the Corcovado Foundation on a sea turtle conservation project, also in Costa Rica. Through these experiences, Edward has developed an interest in how community-based conservation projects and eco-tourism can have a positive social and economic impact on local communities. Edward has a strong interest in environmental issues and is a member of the steering group for Plastic Free Eastbourne, a campaign group that is working to gain 'plastic free' accreditation for the town.

Ed has already been at work on virtual tours, representing UKOTCF at meetings, analysing data and various other tasks.

Ashleigh Atkinson

Ashleigh holds a BSc in Biology from Manchester Metropolitan University and an MRes in Biodiversity and Conservation from the University of Leeds. She has studied bats in Mexico, acorn woodpeckers in California and ungulates in Kenya.

She has worked for the British Council and for City of Trees, focusing on heritage projects and inclusive community practice.



An inclusive future, for people and wildlife, and bridging the gap between cultural heritage and the environment is at the centre of her motivation.

Fascinated by the diversity found in the UK Overseas Territories, Ashleigh hopes to contribute to the excellent work of UKOTCF.

Ashleigh was appointed in September 2018 as a

Conservation Assistant for UKOTCF, and has already been at work, investigating optimising the new web-site and various other tasks.

Jamie Males



Jamie graduated with a BA (Hons) in Biological Sciences from the University of Oxford, before completing a PhD in Plant Sciences at the University of Cambridge. His doctoral research focused on the ecology of epiphytic plants in the southern Caribbean; this involved both climbing a lot of trees

and dodging a lot of snakes. He has also carried out fieldwork in Australia, Central America, and Mexico, and has a special interest in the evolution, physiology, and conservation of succulent plants. Back at home he is a keen field botanist, and is involved in local conservation and scientific outreach projects. Jamie currently works in scholarly publishing as a journal editor, and is passionate about open science.

Jamie has already been at work on virtual tours, analysing data and various other tasks.

Schools course *Wonderful Water* updated and free online

The *Wonderful Water* environmental education materials were developed by UKOTCF, the Turks & Caicos Islands (TCI) Department of Education, and TCI teachers. These were to fill the gap perceived by the Director of Education in respect of awareness of school-students about the key role of water in these desert islands. A small start-up grant from the UK Overseas Territories Environment Programme was supplemented by donation of large amounts of UKOTCF volunteer time, and donation of all the photographs – which, unlike most available curriculum material, were primarily pictures within TCI.

The target age group was 9+ years, and the material was put into use in 2012 in all government schools for this group. However, these materials can be used flexibly as best judged by the teacher, and have been used up to senior secondary level. They take account of the curriculum being used in TCI, and have clear objectives for students at different levels of competency.

The materials for a particular unit consist of a pupils' text, a teachers' guide, and supporting illustrative material. All the examples used are from TCI, and are illustrated with many high-quality coloured photographs, as well as appropriate diagrams. They are produced as electronic pdfs, so that they can be used flexibly, e.g. computer-projected or displayed on a tablet, and updated periodically.

UKOTCF has now donated the time to update these materials. The first revised modules, on Wetland Ecosystems and on Mangroves in the Turks and Caicos Islands, can now be viewed or downloaded free of charge here: <https://www.ukotcf.org.uk/wonderful-water>.

UKOTCF is making these materials freely available. However, donations to enable further revision and production of more units would be greatly appreciated. You can donate at <https://www.ukotcf.org.uk/Appeal/discrete-donations>.

Partnerships across the Channel – IEEM Meeting 2018

The Inter-Island Environment Meeting took place on 20th and 21st September 2018, hosted by Jersey at the Crabbé Adventure Centre on the island's north coast. Executive Director, Catherine Wensink, participated for UKOTCF.



Team-building exercise at Jacob's Ladder.
Photo: Alderney Wildlife Trust

It was organised by the Jersey National Trust and the States of Jersey, with sponsorship by Insurance Corporation and the Howard Davis Trust, bringing together more than 60 delegates from Jersey, Guernsey, Alderney and the UK.

The Minister of Environment, Deputy John Young opened the meeting and called for “an action plan on plastics” and hoped for greater cooperation between the Channel Islands.

The theme of this years meeting was environmental partnerships. Its objectives were:

1. to discuss the potential for a Channel Islands Environment Charter.
2. to provide presentations on a range of environmental topics, demonstrating the value of collaboration and partnership, as well as the challenges that arise.
3. to discuss current or future projects, which could effectively be taken place in the Channel Islands and other regions, such as the Isle of Man and UK.

The Director of Jersey's National Trust, Charles Alluto, led a session on the Environment Charter, included breakout groups, to discuss general themes and aspirations shared across the Channel Islands. A draft Charter would be circulated after the meeting.

Highlights of the presentations held in the mornings included: a review of the Jersey National Park around its coastline. It recalled Jersey's most peaceful demonstration, a human line stretching all the way along the sand at St Ouen's Bay, in 2009.

It aimed to slow and stop the excessive development, which was taking place along its coastline. The protest was seen as a massive



Human line in the sand. Photo: Jersey Evening Post

win for the environment as it forced a change of attitude about environment in Jersey. Plastic Free Jersey (<https://www.gov.je/Environment/Ecoactive/Campaigns/Pages/PlasticFreeJersey.aspx>) and Pollinator Project (<https://pollinatorproject.gg>) talked about their recent work, which could be replicated throughout the islands.

The importance of data-management was discussed. The Jersey Biodiversity Centre Manager introduced how data are being brought together from many of the conservation bodies on island to be shared. The RSPB talked about their partnerships that were working well including: Greener UK coalition and Nature Friendly Farming Network.

The Forum talked about its work on Montserrat, which gave a UKOT dimension.



Catherine Wensink gives UKOTCF's presentation.

There were some interesting post-graduate studies, which looked at the marine environment, as well as ways in which citizens can help collect data through Seascope, an initiative with the Marine Conservation Society.

There was an overview of the Herm Ramsar Management Plan, which was Guernsey's first wetland site, designated in 2016 and of Jersey's Invasive Species Strategy, which gave stark warnings about what can happen when an invasive is introduced and nothing is done. It also highlighted an interesting point in that this issue is not new and has been happening for many years. It was interesting to see some of the posters about Colorado beetles from the early 1930s.

The Alderney Wildlife Trust presented an insight into the pros and cons use of volunteers to increase human resources over the last 15 years of their existence. The meeting ended with an overview of the project to conserve seabirds around Jersey's coast.



Deputy John Young opens the meeting. Photo: Alderney Wildlife Trust

Many of the interesting projects could be replicated across the island and links were made to make this happen.

During the afternoon participants were treated to a chance to have a look at one of the most exciting partnerships on island between the Jersey National Trust, States of Jersey and Durrell Wildlife

Conservation Trust. It combines several aspects but aims at reintroduction of Choughs to Jersey.

Cristina Sellarés and Jon Parks took the group to see Sorel Point on the Island's north coast. Here the National Trust is working with partners in order to provide habitat for birds which will also provide habitat for other biodiversity, including invertebrates and the all important pollinators. Shepard, Arun, manages a flock of Manx Loaghtan sheep, which graze the land up to the cliff-tops. It was here that in 2013 seven sub-adult Choughs were moved into a purpose-built aviary (see earlier issues of *Forum News*). Durrell's Liz Corry showed the group the aviary and provided some background on some of the challenges overcome during the project. What has worked really well is the close partnership between many organisations.



Winter crops for choughs: the fields are planted with a seed-mix composed of a rich variety of plants, high in protein and fat, e.g. buckwheat, mustard, quinoa, chicory, sunflower, millet, gold-of-pleasure, triticale, spring wheat and phacelia. Photo: Catherine Wensink

In the evening, local conservation group, Jersey Bats (www.jerseybatgroup.org) led a walk in to the nearby wood with tracking devices to see if we could locate any of Jersey's 8 species of bats. It was a bit windy for them and bats do not have to forage daily (instead they are able to remain in a state of torpor when conditions are not ideal in order to conserve energy), so no luck! Jersey Bats are currently involved in a project to find out more about *Nathusius pipistrelles* on Jersey. Although tiny, this species is migratory throughout Europe and can travel great distances. A few years ago, one was discovered to have travelled 905 miles from Latvia to Sussex in the UK in just 50 days.



Photo: Jersey Bat Group

Sadly, due to swells and high winds the following day the planned kayak trip was cancelled, but visits to Plémont and the Wetland Centre were possible.

Plémont is found in the northwest corner of Jersey. The Trust's Land Manager and Conservation Officer, Jon Parks, led the group to the former holiday campsite and explained the work being done to return the site to nature. Proposed development on the site had included 140 homes. However, recognizing the importance of the site for its natural features including as the last site on island where puffins are found (although only a handful of pairs), the States and the National Trust purchased the land for £7.5m.

The National Trust for Jersey's Wetland Centre is situated at St Ouen's Pond. The wetland area has been managed by the Trust since 1975 and, in 2014 on World Wetland Day, they opened a 'state-of-the-art' hide as well as an interpretation centre. The entrance to the Centre is through a tunnel, which leads through a dune mound. This opens out in to a reed bed and pond allowing up close and personal views of wetland birds and habitat.

Those attending congratulated the Trust and States of Jersey for bringing partners together and for organising the event. Next year the meeting is expected to be hosted by Alderney.

Cahow successful breeding continues year-on-year

This year the team on Nonsuch Island, Bermuda, recorded 71 chicks successfully fledged out to sea. Hundreds of thousands of CahowCam viewers (<http://www.nonsuchisland.com/live-cahow-cam/>) watched over 12 million minutes of footage through their collaboration with the Cornell Laboratory of Ornithology which aimed to showcase "the hidden lives of one of the rarest seabirds on the planet." Season 6 of this epic followed the transformation of one chick from "fluffball to fledging".



Eat the Invasives!

One of the problems in addressing invasive species, especially as these begin to establish, is finding these challenging exercises. If a market can be found for the invasives, this may help - provided that the economics do not become a rationale for maintaining the invasives. Another challenge occurs if the main market is in other countries, so that export and import requirements come into play. An interesting example that such challenges may be overcome was reported in the Cayman Compass of 26 June 2018 via an article by James Whittaker on Green iguana meat exports to begin:

A Cayman Islands company is beginning to export green iguana meat to be sold to consumers in the United States.

After a lengthy vetting process, Spinion Ltd. has obtained the necessary permits to process both lionfish and iguana at its George Town processing plant for export to the U.S. The business hopes it can help provide a commercial solution to the exploding populations of both invasive species.

The company has established an online store in the U.S. and will ship 200 lbs of Cayman-caught iguana – equivalent to around 100 iguanas – to its distribution center in Illinois at the end of July. Ultimately, it aims to export an average of 500 lbs of iguana a month.

Maria Yapelli, one of the founders of the business, said the company had switched from its initial focus on lionfish in an effort to help deal with the green iguana crisis. At last count, environment officials estimated Cayman's green iguana population at just over one million, warning that unless it is brought under control, the species could cause major ecosystem change.

Spinion is in the final stages of setting up an online store to sell iguana meat direct to homes in the U.S.

Ms. Yapelli said there was a strong and underserved market for the product in the U.S., particularly from immigrants used to eating iguana meat in their home countries. The meat can also be processed and turned into pet food.

Spinion has two people, one employee and one contractor, who catch iguanas for them on a regular basis. The iguanas have to be caught live and processed under strict health and safety conditions at their plant.

Holding pens are being set up in North Side, West Bay, Bodden Town and Prospect for short-term storage, and the company plans to supplement its catch by paying \$2 per head for iguanas.

Ms. Yapelli said it had been a slow and at times frustrating process to get the necessary permissions to establish both aspects of its business.

It has been nearly two years since the company first sought endorsement from the Department of Environmental Health to process both lionfish and iguana at the same site. Approval was finally granted earlier this month.

The company had already been granted approval by the U.S. Food and Drug Administration and by the Cayman Islands Department of Environment to export both species for sale in the U.S.

The lionfish aspect of the business is still a work in progress. Part of the problem has been that the lionfish invasion has been partially brought under control by cullers in the Cayman Islands, meaning it is difficult to catch enough fish to pay full-time staff.

Spinion plans to use subcontractors in Honduras to supplement its yield, processing the fish in Cayman for export and sale in the U.S. They plan to make their first export at the end of September.

Ms. Yapelli said it was satisfying to have reached the point where both species could be exported.

“That first shipment is going to mean so much, because it has taken us a long time to get there,” she said.

“There has been one roadblock after another but you have to get through all the ‘nos’ until you get to a ‘yes.’”

For more details, see <https://www.caymancompass.com/2018/06/26/green-iguana-meat-exports-to-begin/>

The Cayman Islands Government Department of Environment recently embarked on an extensive iguana cull across the islands, to reduce the numbers of non-native green iguanas, thought to be around 1,000,000 individuals. This is in contrast to the native Grand Cayman blue iguana and Little Cayman rock iguana whose numbers are significantly lower. Licenced cullers are being paid \$5 per head in an attempt to decrease numbers of these species, which have become pests. Registered cullers killed more than 40,000 in the first four days of the project. By mid-November, over 100,000 had been culled. Local reporters are following this story closely, e.g. <https://www.caymancompass.com>.

... but perhaps not these: Native trees thrive after rat removal

Chagos Conservation Trust report a recent study by Island Conservation, which shows a 5000% increase in native trees on rat-free Palmyra Atoll, British Indian Ocean Territory, demonstrating that rat-eradication is key to restoring island biodiversity!

Over half of the islands in the Chagos Archipelago have been degraded after invasive non-native black rats arrived with people in the 1700s. Rats are now rife and prey on seabird and turtle eggs, and affect the native vegetation.

It is one of CCT's aims to address this problem so native species can thrive again and the Trust looks forward to working with BIOTA and the Island Conservation team, world leaders in preventing species extinctions by removing rats from islands.

Read the full story at <https://chagos-trust.us12.list-manage.com/track/click?u=052b04bf2e4fed53ad0d7a6a0&id=b0b19c9783&e=2442837403> .



Photo: Jon Slayer & Chagos Conservation Trust

Guidelines for invasive species planning and management on islands

UKOTCF recently helped Alan Tye and Jill Key send out to some UKOT and CD personnel copies of these new guidelines. Copies can be downloaded from: <https://portals.iucn.org/library/node/47764> .

When good things go a bit wrong: *Sargassum* – a tale of good and bad

Sargassum is a pelagic brown algae. According to the US National Oceanic and Atmospheric Administration (NOAA), “floating rafts of *Sargassum* can stretch for miles across the ocean. This floating habitat provides food, refuge and breeding grounds for an array of critters such as fishes, sea turtles, marine birds, crabs, shrimp, and more. Some animals, like the *Sargassum* fish (in the frogfish family), live their whole lives only in this habitat. *Sargassum* serves as a primary nursery area for a variety of commercially important fishes such as mahi mahi, jacks, and amberjacks.”

Some areas where large swathes of *Sargassum* are found, such as the Sargasso Sea – part of which is found in Bermuda waters – are important areas for biodiversity and are protected (see Hamilton Declaration 2014).

When it washes up on the shoreline, as it is doing across the Caribbean, it can create some problems (see images). There have been many reports, which suggest that its occurrence ashore is becoming more frequent.

The University of South Florida uses satellite imagery to try and determine where it is likely to wash ashore within the Caribbean and central west Atlantic, publishing its findings in its *Sargassum Outlook Bulletin*.

Mervin Hastings, Acting Deputy Chief Conservation and Fisheries Officer in the British Virgin Islands, says that *Sargassum* has become a routine fact of life in the BVI each spring and summer. His Department issues information about it on their Facebook page.

They recently shared a leaflet (above) produced by the Gulf and Caribbean Fisheries Institute (GCFI) which provides some advice when to take action and what action to take, depending on the level of *Sargassum* that washes ashore.

There have been various reports from around the UKOTs, Recently in the Turks and Caicos Islands, *Sargassum* has been found all around the windward coastlines. These areas are not popular tourist destinations close to amenities and so it unlikely that removal is feasible. Images here show Goose Hill Creek, a 7-mile tidal creek on the east coast of East Caicos, choked with *Sargassum*.

Local reports indicate that *Sargassum* is killing off all the

Responding to a sargassum influx

If sargassum appears on your beach, what you do next can be good or bad for the beach and business. Important lessons have been learned so far.

Here's what you need to know

Sargassum is a natural seaweed that floats in the Atlantic Ocean. It's an important home for marine life, but fish and sea turtles. It's a problem only when it comes ashore in massive amounts. A compaction is the smell of rotten egg gas as wet sargassum decomposes. There are potential health risks in high gas concentrations.

What should you do? Communication is key!

Inform beach users about sargassum manage their expectations.

Direct beach users to unaffected or clean beaches.

Agree how much sargassum justifies cleaning.

Determine which beaches will be cleaned.

Join with partners and share the job.

Organise wildlife patrols to inspect for stranded sea creatures like sea turtle hatchlings, collect and release them, with some sargassum into offshore currents.

Leave some sargassum for beach nourishment.

Keep in touch with local environmental agencies as forecasting models are in development.

Take care! These actions cause serious harm to the beach.

- 1 Constant beach grooming
- 2 Removing sand from the beach or dunes
- 3 Heavy machinery used carelessly
- 4 Clearing or trampling beach vegetation
- 5 Driving above the high water mark and through sand dunes
- 6 Driving over sea turtle nests
- 7 Clearing before patrolers - Let them check for signs of wildlife before you start clearing

If my beach looks like this...

No action required on this beach

Leave the sargassum alone - let nature run its course. Be patient - it will wash away or get buried. Best avoided - it will pollute your beach and save you money and effort.

Taking action? Manual raking is the approach to take

It's simple, low cost and environmentally friendly. Get communities involved in these beach clean-ups. Run educational awareness events for sea creatures in sargassum.

Separate plastic pollution from sargassum for recycling. Transport using wheelbarrows, bags or burlap and take to designated disposal areas.

Work with partners and plan a mechanical response

Take a multi-stage approach - remove upper layers of sargassum with machinery, without touching the sand. Then take machinery or use mechanical beach raking equipment.

Clean high usage areas first and leave other beaches for nature to clean.

Remove the sargassum as soon as possible after arrival to avoid over accumulation.

Do's & Don'ts

DISPOSE of sargassum!

- Designate sites for the disposal of sargassum.
- Use sunny locations for drying and decomposition.
- Re-transport sargassum to be recycled.
- For sea turtle nesting, don't dump on dunes or nests.
- Use as mulch or compost - wash out salt first.
- Farm uses are being developed - live bio-compost and bio-fuel.
- Sargassum is not suitable for human consumption.

what about... REMOVAL from shallow waters?

Removal from close to shore may prevent sargassum from drifting in the water.

Consider a horse-drawn trap to collect sargassum in suitable sea conditions as an environmentally friendly removal option.

Different methods have been tried but are labour intensive and costly (eg. booms, dredges, vacuum). Results are mixed - stability problems, unloading issues and unwanted by-catch of marine life.

12 Do's & Don'ts:

- 1 Clean as daylight
- 2 Use same route on and off the beach
- 3 Consider public safety and mechanical safety
- 4 Supervise use of machinery
- 5 Use machines with large wheels
- 6 Manual clearing is preferred
- 7 Consider a horse-drawn trap
- 8 Don't clean near dunes
- 9 Use machines with large wheels
- 10 Observe for beach spawning for wildlife
- 11 Clean as low tide
- 12 Keep equipment on dunes and in the tidal zone

NO-GO Areas: turtle and bird nests. Do not enter with clearing equipment.

Source: www.gcfi.org



Right and next page: *Sargassum* at Goose Hill Creek, East Caicos, Turks & Caicos Islands. Photos: Kathleen Wood

fish and potentially other wildlife (e.g. turtles, sharks, bonefish), and bird populations are also affected. Some water quality testing and species survey are needed to see how things compare with results from surveys that have already taken place. Long Bay, Grand Turk and South Caicos are also being seriously impacted, with widespread reports of fish kills and foul-smelling water.

Although *Sargassum* can provide refuge and food for many species when out at sea, under these conditions if sea turtles cannot climb over the *Sargassum* or make their way through it, they may not be able to reach the surface of the water to breathe or nest on beaches which are heavily buried in it.

There have been many articles written about *Sargassum*; the guidance from the GCFI seems sensible. We understand there are several research projects, with UK institutions currently being carried out in the UKOTs. We will provide further reports on this as they become available.



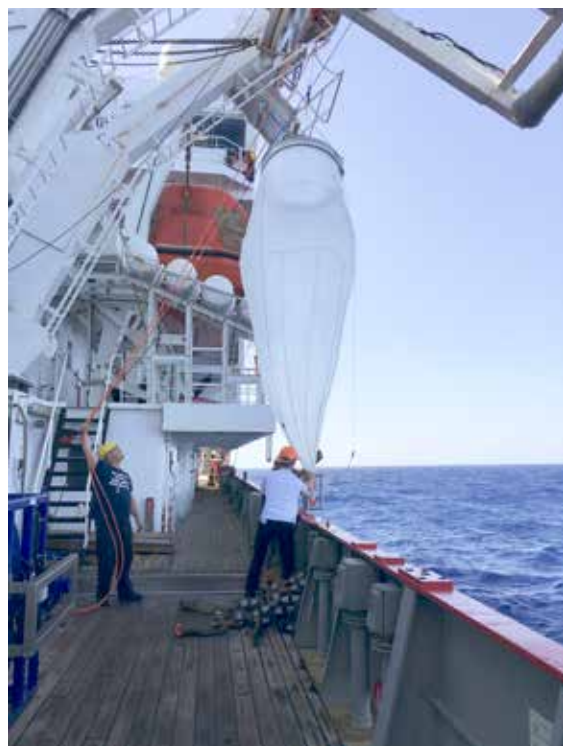
Blue Belt programme update

We have followed with interest, the activities of the *Blue Belt* programme over the past year; this supports the delivery of the UK Government's commitment to enhance marine protection over 4 million km² of marine environments across UK Overseas Territories by 2020. It is initially focused on seven UKOTs: British Antarctic Territory, British Indian Ocean Territory, South Georgia and the South Sandwich Islands, St Helena, Ascension Island, Tristan da Cunha, and the Pitcairn Islands.

The UK linked territories of St Helena, Ascension Island and Tristan da Cunha comprise six main islands spread across a huge distance of the South Atlantic Ocean that are different in climate, biodiversity and marine management needs. St Helena declared a sustainable-use MPA across its 445,000 km² maritime area in 2016; Ascension Island has committed to closing at least 50% of its waters to commercial fishing in 2019; and Tristan da Cunha is currently collecting evidence and considering possible regimes for protecting the waters across its maritime zone of 750,000 km² by 2020. In all cases, the *Blue Belt* programme has facilitated the collection and analysis of data to address gaps in the knowledge and understanding of the territories' marine environments, to enable them to move forward with their marine management, biodiversity conservation and sustainable development.

For Ascension Island, the *Blue Belt* programme is working with the Ascension Island Government (and their Conservation and Fisheries Department), researchers at the University of Exeter, and other partners to develop a strategy and timetable for the designation of the Ascension Marine Protected Area in 2019. This has involved the collation of existing data on both biodiversity and fishing activities in the Ascension EEZ (Exclusive Economic Zone), and also the collection and analyses of large amounts

of new data to enable scientifically robust and evidence-based management options to be developed. The Island Council is due to be consulted imminently on the proposals. Advice has been provided also on amendments to the existing Protected Areas Ordinance that will enable the legal designation of MPAs in Ascension's waters, and training has been provided on compliance and enforcement best practice.

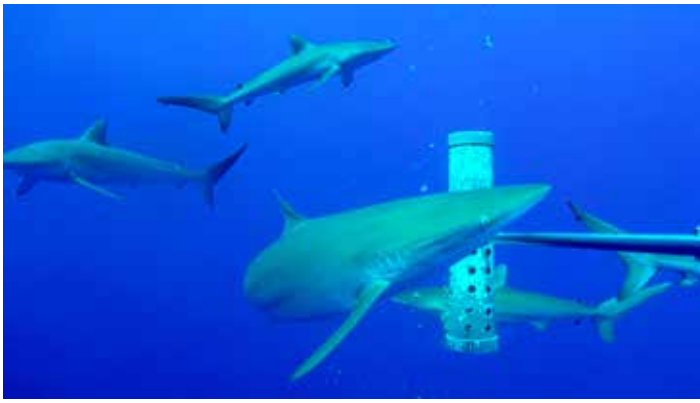


Plankton sampling net being deployed in the James Clark Ross. Photo: Sam Weber



RV James Clark Ross at Ascension Island. Photo: Sam Weber

In January 2018, marine scientists visited Tristan da Cunha as part of the programme, to engage the local community and discuss priorities and plans for moving forward with their marine management regime. For this territory, the fishing industry provides the island's main source of revenue, jobs and food, in particular the MSC-certified Tristan lobster fishery, and so it is important for the island that biodiversity protection happens in such a way that it also supports the sustainable livelihoods of the island's residents. Various new data have been collected including mapping of the benthic ecosystems using equipment on board the Research Vessel the *James Clark Ross*, and also biological data to inform a biomass assessment of their bluenose warehou fishery, of which the island supplies around 25% of the total global catch of this species.



*Silky sharks around Ascension's seamount.
Photo from a Baited Remote Underwater Video System*

In August 2018, Dr Emily Hardman, an Integrated Marine Management Manager on the *Blue Belt* programme, visited Pitcairn Island to raise awareness of the programme on the island. The visit was also to find out local opinions about proposed marine protections, in particular in relation to activities that affect the community directly. Examples are marine recreation, ecotourism, potential responses to any marine pollution incidents, and control of illegal fishing. Information gathered from the visit will be used by Dr Hardman and colleagues to draft an MPA Management Plan in continued consultation with the local community. Dr Hardman and colleagues also facilitated a workshop in March 2018, organised by the British Indian Ocean Territory Administration for key stakeholders to begin the process of developing a new strategic and ambitious Conservation Management Plan for the Territory to be published in autumn this year.

It is encouraging to see that the management plans are being based on a reliable evidence base, and in areas where this does not currently exist. Then expeditions to collect the necessary data are being undertaken and/or the research capacity of on-island Government Conservation and Fisheries Departments and NGOs is being increased. However, another important consideration is that the MPAs will not be 'paper parks,' and that there will be the necessary legislation, monitoring and enforcement capabilities in place. The size and remoteness of the proposed MPAs in the waters of the UKOTs is likely to make enforcement challenging and costly. In July 2018, OceanMind, a not-for-profit organisation that works to provide actionable insights into fishing and fishing vessel compliance, was awarded a contract from the UK *Blue Belt* to monitor the waters surrounding the UKOTs in the current programme by using remote satellite surveillance. Nick Wise, CEO of OceanMind, said: "*Understanding maritime domain awareness in relation to fishing vessels is an important part of marine protection. Being able to analyse suspicious activity quickly and effectively is vital to help with patrol planning and enforcement for the UKOTs.*" OceanMind previously provided actionable intelligence during the monitoring of Pitcairn's waters, and a noticeable change in vessel behaviour is reported to have ensued.

Reports, updates mentioned above and further details on the *Blue Belt* programme activities can be accessed here: www.gov.uk/government/publications/the-blue-belt-programme.

This work comes at an interesting and promising time for marine management and conservation, as September 2018 saw UK Government Environment Secretary of State, Michael Gove, call for a third of the world's oceans to be protected by 2030. Globally, less than 10% of the world's seas are currently designated as MPAs, and now the UK is backing ambitious calls to treble internationally-agreed targets for protected areas to safeguard 30% of the world's seas by 2030.

Although not in the current *Blue Belt* programme, marine management and conservation work also continues to progress in the Caribbean UKOTs, and UKOTCF continues to provide advice, support and resources where possible to the work in this region being carried out by the territories' Government Departments and also a number of NGOs.

Bertarelli Foundation Marine Science Symposium

Members of the UKOTCF team, Dr Nicola Weber and Dr Mike Pienkowski, were pleased to attend the Bertarelli Foundation's inaugural Marine Science Symposium on 11th September 2018 at London's Royal Geographical Society, where they heard from scientists about current research from the British Indian Ocean Territory. The presentations were highly informative and showcased the level of collaboration between scientists from different disciplines to produce cutting-edge research on the marine biodiversity in this territory, which will both inform marine management and conservation decisions, and enable the effectiveness of marine protected areas to be assessed. This included the tracking of marine megafauna, the biodiversity, connectivity and productivity of coral reefs, and the importance of seamounts and their oceanographic features. It was interesting also to hear from those working on the policy development, public outreach and enforcement side of things, and encouraging to hear the evidence-based approach to management decisions. It is anticipated that the research findings and development of best practice approaches will be used also to inform other projects in the UK Government's *Blue Belt* programme, and marine protected areas management more globally. Outside of the presentations, it was also great to have the opportunity to catch up with a number of colleagues working on biodiversity conservation projects in the UKOTs.

Videos recordings of the presentations can be viewed on the Bertarelli Foundation YouTube page: www.youtube.com/channel/UCZ2x8tnBQG2b9cjX8ghbMqA..

Blue Marine London-Monaco ride

BLUE Marine Foundation's annual ride from London to Monaco took place in October, in support of marine conservation projects. The ride crossed eight countries in seven days and covered a distance of over 1,000 km, ending at the Prince's Palace in Monaco. So far, their riders have raised over a quarter of a million pounds for BLUE's projects, including on Ascension and St Helena.

Blue Belt Charter (again from IUCN-UK report):

This month, the Great British Oceans initiative is launching its *Blue Belt Charter* (<https://greatbritishoceans.org/>). It has gathered support from a cross-party collective of 284 MPs and many organisations in the UK and internationally (including UKOTCF) to sign-up to its Charter. This calls on UK Government to continue to support the UKOTs in declaring and managing large marine protected areas, which it does via the Blue Belt Programme (see article on pages 25-26). UKOTCF has tried to remind UK Government that the more complex inhabited UKOTs with artisanal fisheries and sea-borders with other countries should not be forgotten – and that the welcome extra support for marine conservation should not reduce the already very limited support for terrestrial conservation, where most endemics are situated – there being some worrying signs that this may be the case."

Tracking Seabirds to Inform Conservation Measures At Sea

UKOTCF's part-time Conservation Officer, Dr Nicola Weber, spent several years on Ascension Island, first studying turtles and then as the Island's Conservation Officer. Here she recalls one aspect of her work there, on tracking seabirds, in the context of a recently published collaborative paper across many countries and territories to which she contributed.



Masked boobies and endemic Ascension frigatebirds nesting on Boatswainbird Island, Ascension. Photo: Dr Nicola Weber

Having studied and worked in biodiversity conservation with a marine focus, I have had the opportunity to work with a number of marine megafauna species, but it was not until a move to Ascension Island (to work with sea turtles) that I forayed into the world of seabird ecology. Seabirds are known to be sentinels of the sea, with a number of studies demonstrating how they can be used as indicators of the “health” of the marine environment. While seabirds nest on land, they generally find all of their food at sea, so any changes in the availability of their food resources can have a significant impact on their health and reproductive success.

As with many marine species, advances in technology have made it possible to study the largely unseen journeys and behaviours of seabirds at sea using increasingly small tracking devices that are normally attached to the feathers of the bird. These devices then either need to be retrieved to download the data or can transmit it using satellite technology. During my time working on Ascension Island, we attached tracking devices to a number of seabird species including the endemic frigatebird, the masked booby, sooty terns and yellow-billed tropicbirds. These projects involved many people, including supervisors at the University of Exeter who conceived ideas and secured funding, experienced colleagues at the RSPB who helped with study design, deployment of devices and interpretation of data, and of course those working on the ground at the Ascension Island Government Conservation & Fisheries Department who know the area and the birds better than anybody else. Expeditions to tag seabirds, in particular on the offshore islet, Boatswainbird Island, that the local boat drivers skilfully got us on to, remain a highlight of my 5 years on Ascension Island.

Over the last 20 years, researchers have equipped over 100 species of seabirds with tracking devices to follow their movements at sea. As such studies become increasingly common, a wealth of information is being collected and many of these data have been contributed to the BirdLife Seabird Tracking Database and can be used for conservation planning or research, for example by identifying areas at sea that are important foraging grounds, and hence may benefit from protective measures being put in place. It



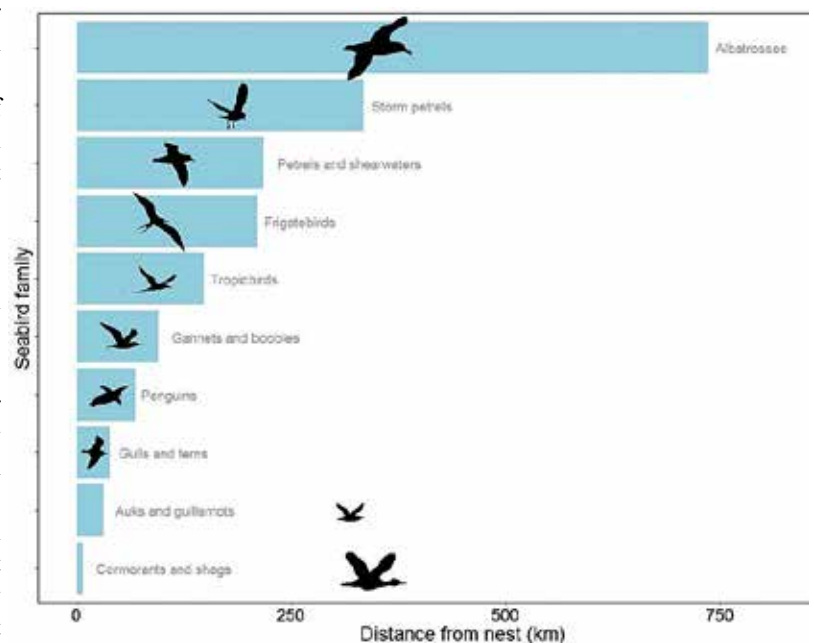
Tracking tag being attached to the feathers; it will be lost at the next moult within a year. Photo: Dr Nicola Weber

is only in this collaborative way that we can carry out holistic research projects to gain real insights into marine ecology and conservation at a more global scale.

In a [new study published recently](#) in the journal *Marine Policy*, researchers from RSPB and BirdLife International summarised the tracking data of 52 species from 10 families across the Atlantic Ocean (including those from the Ascension Island birds) to highlight the differences in the spatial scale of their movements during the breeding season. This summary, based on more than 12,000 foraging trips from over 5000 breeding birds, highlights the enormous differences between seabird families: while cormorants and shags often only travel 5-10 km out to sea, albatrosses, petrels, and frigatebirds routinely travel more than 200 km to find food during the breeding season. As there is a variety of options to protect seabirds at sea, it is thus important for policy-makers and conservation practitioners to understand which approach is most suitable for which species, based on their behavioural ecology. For example, birds that travel very far and exploit vast areas at sea may require conservation measures at a much larger scale than birds that travel only a short distance and remain in a smaller area.

This study highlights one of the aspects of academic research that I find the most interesting and rewarding – the collection of reliable data that can be used to inform management decisions and lead to tangible conservation actions being implemented, through the collaborative efforts of many people and organisations.

Please see the paper for full acknowledgements of people, organisations and funding bodies.



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