

FORUM NEWS 53

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• www.ukotcf.org.uk

Staying Connected for Conservation in a Changed World: **UKOTCF's 6th conference for conservation practitioners and decision-makers will be online in early March 2021.**

UKOTCF will hold the next in its series of renowned conferences, for the first time online, on Tuesday 2nd, Wednesday 3rd, Tuesday 9th and Wednesday 10th March 2021. Further announcements, with details and booking arrangements will be made on www.ukotcf.org.uk/onlineconference2021/ as information becomes available.

Introduction

Consistently over several years, one of the most frequent enquiries from UKOTs and CDs to UKOTCF has been "when is the next UKOTCF conference?" This is because, as reported by UKOT

participants, the conferences have proved invaluable in enabling successful conservation initiatives which would not otherwise have occurred.

For those new to the topic, UKOTCF organised conferences for conservation practitioners in the UKOTs, CDs and a few territories of other states or small independent states in 2000 (Gibraltar), 2003 (Bermuda), 2006 (Jersey), 2009 (Cayman) and 2015 (Gibraltar). UKOTCF also helped FCO in organising and running a conference arranged at short notice in London in 1999. The conferences until 2009 received major financial support from UK Government, as well as from the host territory (with



Above: the conference participants in Gibraltar in 2015; and next page: what the conference photo might look like for 2021 (made up from a few examples of UKOTCF regional working group and Council meetings, which have been held successfully by Zoom in recent months).

- by building resilience
5. Nature-based solutions for the UN Decade of Ecosystem Restoration: Terrestrial
 6. Nature-based solutions for the UN Decade of Ecosystem Restoration: Marine
 7. Funding mechanisms – tourism and alternatives
 8. Plugging the gap: innovative approaches and capacity-building

The overall title for the conference was also drawn from several of the suggestions.

We plan that the conference will produce proceedings, as did previous UKOTCF conferences (see www.ukotcf.org.uk/our-conferences/).

We propose to model our approach on that used successfully in the 2015 Gibraltar conference, itself evolved from that used in our previous conferences. That is that topic sessions are structured to reach useful conclusions or recommendations, rather than just present interesting and potentially useful studies (as occurs in conferences of scientific and some conservation organisations). Hence, speakers will be selected in relation to relevance to themes (and will include, wherever possible, contributions from the territories themselves – so that all territories will be represented across the conference although, for practical reasons, not within every topic session).

To ensure that we have good involvement from those closest to the issues and with relevant experience, for each topic session at the conference, a small team is helping prepare for that topic at the conference. We have invited appropriate personnel to join these topic session teams, and managed to arrange it that persons from or closely associated with all 21 UKOTs and CDs have been invited to join these teams (although they are acting in individual capacities, not as representatives).

For each topic, the topic session team will draw together wide experience with some knowledge of the topic and/or how to phrase conclusions and recommendations to give the best chance of these being adopted by others. As was done for the 2015 Gibraltar conference, Mike Pienkowski and Catherine Wensink, as overall conference coordinators, will sit in all such teams, in order to ensure overall conference coherence. However, whilst they may each act as a coordinator for a team, they have asked others to coordinate the other 6 teams.

The main task of the session team is to produce a first draft of the conclusions and recommendations for each session. In doing this, they will take account of:

- Current important issues and priorities for conservation in the UKOTs/CDs;
- The importance of noting the views of speakers and others from the territories, supplemented by those of outside speakers where necessary;
- Posters will be included in the conference (with fewer constraints on numbers); these will be allocated to topic sessions (but viewable longer term within the conference period) where appropriate, and a general section where not.

As for the 2015 Gibraltar conference, to allow proper consideration of conclusions and recommendations, we want to give participants the chance to discuss them with colleagues before the conference, and indeed to be able to feed in ideas during the conference, not just throw the load entirely on to the discussion period within the topic session.

We aim to circulate a late draft to participants by a month before the conference. We aim to revise that in the light of any comments received by mid-February, so that a final draft can be circulated

immediately before the conference. This will be considered and final comments received in the discussion period at the end of the appropriate topic session. (We are in consultation with the Chair of the UKOT/CD Environment Ministers Council with a view to organising a meeting of that Council about a month after the conference, so that conclusions can be fed into that, as well as to other target audiences.)

Each talk will be limited to a maximum of not more than 15 minutes (some may be slightly shorter), with up to 5 minutes of questions and introduction of the next speaker. Speakers will not be allowed to over-run their speaking slot into the question period. Indeed, to avoid the delays and difficulties that have plagued the online conferences of some other organisations, the talks will be pre-recorded, but the questions & answers (and general discussion sessions) will be live. (This arrangement worked very well at a short conference of another organisation with which some of the UKOTCF conference team were involved recently.) The purpose of talks is to stimulate those discussions. Speakers can give fuller accounts in the proceedings. Speakers and other participants can also supply posters, which can be drawn into the discussion. (Procedures for submitting posters will be indicated soon.)

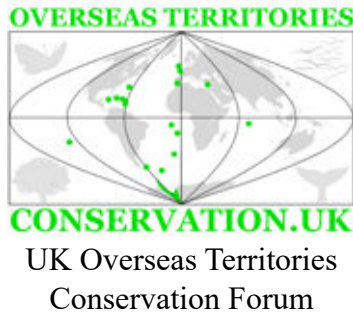
Funding

To keep conference costs as low as possible (bearing in mind that UKOT/CD conservation workers and their organisations are not generally well funded) and to give the opportunity for other organisations to be associated with this successful series of conferences, UKOTCF is offering sponsorship opportunities for other organisations (see www.ukotcf.org.uk/wp-content/uploads/2020/11/Note-for-Sponsors201117.pdf). For more details of these (or to suggest organisations from which to invite sponsorship), please email jmales@ukotcf.org (Dr Jamie Males) and copy to hello@ukotcf.org.

Whilst UKOTCF depends heavily on large amounts of unpaid work, some costs are unavoidable, including many to make the conference happen. Many people responding to the questionnaire made it clear that they would be happy to pay a reasonable conference fee. Therefore, we will be charging a conference fee, with reductions for some categories, and with some free places for persons involved in conservation in the UKOTs/CDs but genuinely unable to pay. The fee will be per participant. We recognise that, subject to local anti-Covid-19 regulations, some people will wish to meet together and join the conference by a shared computer. We have no objection to this and can indeed see certain advantages. However, we should note that the costs are worked out on the basis of the fee relating to the number of participants – so we would hope for honesty here. We would prefer this to be done by individuals registering separately regardless of whether or not they connect to the conference separately or with others. Amongst other things, this will ensure that participants receive all advance and follow-up materials and consultations. However, if it is agreed that a local coordinator wishes to register a group of persons, we will still need those persons' contact details and fees. We are aware too that certain territories, especially in the South Atlantic, suffer exceptionally high internet fees set by the monopoly supplier. We would be happy to negotiate whether it is possible to offset some of these fees against a reduction in the group's total conference fees.

Booking and payment will be available at a later date online at www.ukotcf.org.uk/onlineconference2021/, where further details will appear, as these become available.

We look forward to seeing as many of you as possible in March, online at the conference.



Montana State University, partly from UKOTCF-led study, describes 11 species new to science (6 endemic) from Montserrat

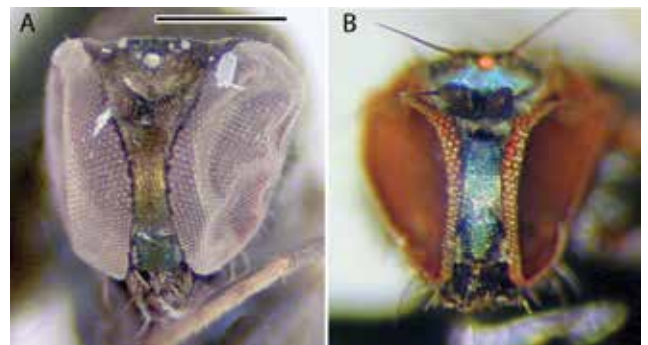
The part-Darwin-supported study in Montserrat in 2016-18 was led by UKOTCF in partnership with Montana State University (MSU), Montserrat National Trust (MNT), the Government of Montserrat (MoG) Ministry of Agriculture, Trade, Lands, Housing & Environment (MATLHE), and Treweek Environmental Consultants (TEC).

One element of the work concerned describing and analysing some of the insects of Montserrat, key elements for many aspects of ecology and natural ecosystem services, including pollination, pest-control, nutrient-recycling, amongst others.

Dr Justin Runyon, of MSU and US Department of Agriculture Forest Service, undertook the study of long-legged flies (Dolichopodidae). His 95-page study, *The Dolichopodidae of Montserrat* has just been published and is open access at: <https://zookeys.pensoft.net/article/55192/list/7/>. This is a key, i.e. a paper that allows identification of, in this case, these tiny but important flies. Inevitably for this sort of essential scientific paper, it is not an easy read for non-biologists (or even some biologists), but it contains some important information for everyone.

Some key aspects include:

- 63 species of long-legged flies, in 27 genera, have been found in Montserrat;
- 11 new species (previously unknown to science) have been discovered;
- 6 species have been found only on Montserrat and are endemic;
- Dr Runyon has named 3 for the island: *Medetera montserratensis*, *Chrysotus montserratensis*, and *Sympycnus montserratensis*;
- Montserrat has more species than predicted based on size (especially since less than half the island was sampled due to exclusion zone); this reflects work on other taxa showing Montserrat to be exceptionally biodiverse despite its small size and impacts of natural and semi-natural disasters;



Some of the illustrations from the paper.
Above: Heads of males, showing colour differences of face of (A) *Medetera ivicii* (new species, Montserrat) and (B) *M. crassicauda* (Dominica). Scale bar: 0.5 mm.
Below: New species *Medetera montserratensis*. Scale bar: 1.0 mm
Opposite: New species *Chrysotus callichromoides*. Scale bar: 1.0 mm.



- Three of the six species endemic to Montserrat

are restricted to lower elevation/dry forests, indicating importance of conserving some of these habitats; these are under pressure, partly because they are the most comfortable for people to live. UKOTCF's/MNT's *Adopt a Home for Wildlife* initiative is working with the local community to help safeguard these forests.

Justin Runyon also discusses the potential negative effect that large numbers of introduced mangos might be having on aquatic insects in some locations, indicating the need for more study, taking account also the socio-economic importance of this plant and its benefits to some endemic plants.

Sargassum inundations – the search for solutions

In a special issue of UKOTCF's Wider Caribbean Working Group's eBulletin in September 2020, the WCWG Secretary, Ann Pienkowski, reviewed and summarised available information on attempts to deal with the infestations of Sargassum. Here, Dr Jamie Males (WCWG Assistant Secretary) summarises and updates Ann's summary. For further information and main sources, see the eBulletin 27 (www.ukotcf.org.uk/wp-content/uploads/2020/09/WCWGeBulletin27_202009_Sargassum.pdf).



Sargassum influx in Cayman. Photo: Cayman Compass

Since 2011, the coastlines of the Caribbean islands and surrounding continental regions have been confronted by repeated Sargassum inundation events, with major consequences for the environment, economy and public health of affected areas. Perhaps the most familiar image for many readers will be of large, unsightly mats of Sargassum lying on beaches, where they release foul-smelling and poisonous hydrogen sulphide gas as they degrade and interrupt beach-use by tourists and nesting turtles alike. However, the problem also extends much further than this most visible example: canals and marinas are routinely clogged with Sargassum, fisheries frequently obstructed, and it is also having a significant ecological impact on coral-reefs, seagrass-beds and mangroves by blocking the penetration of sunlight and reducing seawater oxygen content. As the costs of this complex problem have continued to mount over the past decade, efforts to find sustainable mitigation methods have intensified, with input from stakeholders ranging from scientific researchers to coastal residents. Here, we provide an update on the scale of the challenge and some of the potential responses being explored.

The two species most associated with the inundation events are Sargassum fluitans and S. natans. In the pelagic environment, rafts of these and other Sargassum species represent a major CO₂ sink, as well as providing an important habitat for a wide range of marine organisms. Historically, most Sargassum biomass

originated in the eponymous Sargasso Sea (near Bermuda), with relatively small quantities arriving in the Caribbean via surface currents and winds. The recent influx of much larger quantities of Sargassum appears to be driven by massive blooms of Sargassum growth occurring in a new 'source' region: the North Equatorial Recirculation Region (NERR) – between the mouth of the Amazon and Africa. The environmental factors driving this increased production are not clear, but are hypothesised to include changes in ocean salinity, acidity and surface temperature, as well as increased nutrient loads from agricultural run-off.



Turtle hatchling struggling in Sargassum on Cayman Brac. Photo: Cayman DoE

The geographical spread of the Sargassum blooms encompasses all of the Caribbean UKOTs and Bermuda, as well as the other Caribbean island countries and territories, Florida, Mexico, and parts of Central America and West Africa. The exact distribution and intensity of inundation events varies year to year, with 2015 and 2018 having seen particularly large blooms. Remote-sensing is routinely used to track the spread of Sargassum blooms and forecast inundation events, such as via the new Satellite Sargassum Monitoring System (SASAMS) led by researchers at the University of Nottingham and funded by the UK Space Agency's International Partnership Programme. Early-warning systems can assist in forward-planning for the implementation of mitigation or clean-up activities.

A spectrum of management approaches has been put forward, mostly in the context of beach inundations, involving various degrees of intervention and technological complexity. Each comes with its own pros and cons. The simplest approach is to do nothing. While relying on natural degradation comes at no direct cost, it is a slow process during which noxious gases and bacteria can escape into surrounding areas. It is therefore generally suitable only for less populated, less environmentally-sensitive locations.

Onshore removal of Sargassum can avoid these negative effects and can be done either manually or mechanically. Manual removal is more selective but highly labour-intensive, whereas mechanical removal is faster but requires heavy machinery and can cause damage to beach structure and turtle nesting sites. Furthermore,



Left: Mechanical removal, Miami Beach, Florida – at a cost of about \$9 million per year to keep 15 miles (24 km) of beach clear. <https://local10.com>. Right: Hand rake and wheelbarrow removal, Bonaire. Photo: Dutch Caribbean Nature Alliance (DCNA)



From Hinds et al 2016

whichever technique is used, removal of *Sargassum* from the beach inevitably involves the incidental removal of sand attached to the *Sargassum*, which can contribute to beach erosion. There are also challenges with disposing or processing the removed biomass (see below), which are greatly exacerbated by the adherence of sand to the *Sargassum*. Another alternative is to rake or bury the *Sargassum* into the sand, which can by contrast help to stabilise the beach against storm surges. However, this approach can be used only for relatively modest quantities of *Sargassum*, and, while less visible, still involves *in situ* decomposition with its associated drawbacks. Some material will also eventually be washed back into the sea, where it can affect marine habitats.



Specialised barge for removing Sargassum from water: Hinds et al 2016

Other management approaches take place in the water. Removal of *Sargassum* from the water before it arrives at the coast circumvents the immediate impacts on coastal environments, but still requires a means of disposal and the use of vessels fitted with specialised and expensive skimming equipment. A different approach is to block the progress of the *Sargassum* towards the shore without removing it from the water, using either physical deflection barriers or air-bubble curtains. Such installations must be carefully planned and monitored to avoid adverse environmental effects, and are only feasible in combination with skimming to prevent a build-up that will eventually find its way to shore around the barrier.

Wherever *Sargassum* is removed from beaches or water, there is a need for a suitable method of disposal or utilisation. It has been shown that *Sargassum* degrades poorly in traditional landfill, and its chemical composition and microbiome can even inhibit the decomposition of other waste. Attempts have been made to develop composting techniques, but these have faced difficulties including the *Sargassum*'s salinity and the high concentration of toxic heavy metals that naturally accumulate in its tissues. *Sargassum*-based fertilisers have been commercially produced in St Lucia, where the material is collected in collaboration with local fishermen. Elsewhere, the cellulose content of *Sargassum* has found practical applications in the manufacture of products such as paper and lightweight building materials, though this has so far only been achievable at a small scale. Utilisation of *Sargassum*-derived alginates for pharmaceuticals and cosmetics has likewise been trialled on an artisanal scale.

There has been periodic discussion of the suitability of recovered *Sargassum* for use as livestock-feed, or even human food. However, the scientific consensus indicates that such uses are to be discouraged, as the concentrations of metals and pollutants in *Sargassum* material are very often above safe levels.

One of the biggest areas of ongoing research is the potential use of *Sargassum* as a feedstock for energy generation, either through incineration or the production of biogas or biodiesel. All of these applications require sand-free, dried *Sargassum*, meaning that intensive pre-treatment of the collected materials is needed.

The use of *Sargassum* in energy generation is also likely to be economically viable only if a regular, reliable supply of feedstock can be guaranteed, making storage of material important. The best methods and infrastructure for *Sargassum* storage is still under investigation, and there are active exploratory biofuel and biogas projects in Barbados and Mexico. Other issues include the release of toxic pollutants unless the *Sargassum* has been thoroughly decontaminated. There are promising early results from a collaboration between researchers at the Universities of Exeter and Bath and partners in Mexico exploring the use of hydrothermal liquefaction to produce biodiesel. Other potential technologies include anaerobic digestion. Preliminary feasibility studies, including results from a Darwin Plus project based in Turks & Caicos and led by the University of Greenwich, have suggested that *Sargassum* could be combined with other forms of organic waste to generate energy via anaerobic digestion, though further research is needed to establish the appropriate mix of feedstocks and conditions, and to consider the feasibility of such approaches in small territories where the use of expensive large-scale equipment might be impracticable.

Unfortunately, the scientific consensus is that annual *Sargassum* inundations are likely to continue as a permanent fixture. If this is the 'new normal', it will be all the more vital to come up with effective, sustainable long-term strategies to managing the problems posed by inundation events. With the unresolved issues associated with all of the above management approaches, there is certainly no silver bullet. Instead, the overall response to the *Sargassum* question will require a multi-pronged set of adjustments, including technological interventions and resource exploitation where feasible, and societal adaptation where necessary. It seems likely that individual territories (alongside other Caribbean states) will benefit from developing localised strategies with objectives and methods appropriate to individual sites. Collective action, where governmental authorities partner with conservation organisations, resident associations and private enterprises to decide on priorities and methods, has proven valuable where it has been deployed. At a broader scale, inter-territory and international collaboration – from the sharing of information to joint investment in new technologies – will be crucial to maximise the efficiency of efforts across the region. The 1st International Conference on Sargassum took place in Guadeloupe in 2019, providing a forum for disseminating knowledge and building links across the Caribbean and resolving to establish a Caribbean Programme for *Sargassum*. We hope that such an initiative, alongside conduits such as UKOTCF's Wider Caribbean Working Group, can act as a vehicle for driving forwards co-operation and research into sustainable adjustment to the 'new normal'.



In some remote places, any clean-up is impracticable at present, and may not be desirable. However, there can be significant detrimental effects on, e.g. turtle nesting beaches, coral-reefs, seagrass-beds and mangroves. Sargassum inundation, East Caicos, Turks and Caicos Islands.

Photo: Kathleen McNary Wood

New UKOTCF member organisation: Manx Wildlife Trust

Manx Wildlife Trust (MWT) has recently become a UKOTCF member organisation. Here, MWT personnel outline the organisation.



Manx Wildlife Trust was founded in 1973 and we are the leading nature conservation charity in the Isle of Man, caring for land, sea and freshwater environments. We work hard, as an independent charity, to protect our Island's wildlife and help people feel more connected to nature. Our vision is *the Isle of Man's land and waters rich in wildlife, where nature matters to all*, and we aim to achieve this through our mission to *protect and enhance our environment, create more spaces for wildlife, and inspire people to act for nature*. MWT are proud to partner [UNESCO Biosphere Isle of Man](#), which is the only entire biosphere island nation in the world.

The Isle of Man (IOM) is a UK Crown Dependency and, along with the Alderney Wildlife Trust, MWT are the two UKOTCF members of the Federation of 46 Wildlife Trusts across the British Isles. As an island nation, IOM has a wide range of diverse habitats, but with over 87% of Manx territory being marine, this is a large part of what we do. Our [living seas programme](#) is all about creating healthy seas that are rich in wildlife. Our work includes monitoring our small shark species through a tagging programme, attending dead marine megafauna strandings, encouraging puffins to nest on the Calf of Man, continuing to monitor seal pup births around the Calf, assisting with cetacean and basking shark research, and monitoring non-native invasive species. There are now 10 marine nature reserves around the Island and we help with their designation and support the IOM Government in managing them.

On land, MWT own and maintain twenty five [nature reserves](#) with the help of a dedicated band of volunteers. Seven of these reserves are open to the public. [Close Sartfield](#), our flagship reserve, has what is thought to be the largest concentration of orchids in northern Europe during the display of flowers in June each year. Our [Ramsey forest project](#) is working to create the Island's first forest by expanding and linking the glens, plantations and woodlands between Ramsey and Sulby. Launched in 2014, the aim is to increase the woodland cover of the Island from 20% to 30% over the next 30 years.

MWT also manage the [Calf of Man](#), a small island off the south



Orchids at Close Sartfield. Photo: Manx Wildlife Trust

coast of the Isle of Man owned by [Manx National Heritage](#), which is of international importance to wildlife. The Calf of Man Bird Observatory is one of the network of bird observatories across the British Isles, and our team of wardens and volunteers undertake bird-ringing, breeding surveys of various sea-birds, moth-trapping, seal-pup surveys, a daily census, a butterfly census and other non-avian records. We are also looking to re-establish Manx shearwater and puffin colonies on the island, after they were decimated through predation by invasive species. So far we have increased the number of Manx shearwaters to around 600 breeding pairs and are yet to have any nesting puffins but regularly see young puffins around the Calf.

Engaging with people in the IOM is fundamentally important to MWT. We have a fantastic team of volunteers, who carry out a huge amount of work, ranging from the Midweek Muckers who maintain our nature reserves, the team that run our Gift Shop, marine volunteers for a range of work, and the North and South Groups who run our Scarlett and Ayres Nature Discovery Centres and carry out a huge amount of fundraising for us.



Calf of Man wardens ringing gull chicks. Photo: Manx Wildlife Trust

Partnership working is crucial for MWT and this year we have signed memorandum of understanding with the Manx National Farmers Union, Manx National Heritage and Manx Whale and Dolphin Watch, with others in the pipeline. We are also a proud member of the [Manx Nature Conservation Forum](#) and the [Manx Biodiversity Recording Partnership](#) and have a good working relationship with the IOM Government, across several departments. Leigh Morris joined MWT as our new CEO in January 2020. Immediately prior to joining MWT, Leigh had spent two years in the South Atlantic, based on the UK Overseas Territory St Helena. Leigh carried out [agriculture skills appraisal](#) for the St Helena Government and then coordinated the delivery of several of the recommendations. In addition, Leigh was a consultant for the Blue Marine Foundation, helping to set-up a new marine conservation team in the St Helena National Trust and spent time on Ascension Island assisting with the roll out of their new island [waste management strategy](#) and reviewing their [hydroponic production](#). Leigh also served a term as Vice-President of the St Helena National Trust in his final year on the island. Leigh sees great potential for knowledge sharing and collaboration between islands and was therefore keen that MWT joined UKOTCF and contribute to the UKOT/Crown Dependencies network.

MWT are delighted to now be a member of UKOTCF and, with our position in the centre of the British Isles and status as a UNESCO Biosphere, we aim to engage actively within UKOTCF events and would encourage other UKOTCF members to contact us and make a link. Please have a look at our [website](#) and social media channels to keep up to date with our latest projects and updates!

Fifteen Years of Caicos Pine Conservation Work

Caicos Pine Recovery Project: Department of Environment and Coastal Resources, Turks & Caicos Islands

B Naqqi Manco, Environmental Officer: Terrestrial Ecologist

From the late 1990s, UKOTCF ran a joint programme for some 10 years with the Turks & Caicos National Trust, and bringing in many partners, to investigate the ecology of the North, Middle & East Caicos Ramsar Convention Wetland of International Importance and the ecological related adjacent areas around it. On the basis of this, the programme proposed a management plan including the provision of a range of interpretative trails and facilities. The programme implemented these trails and facilities (although much was later put out of action, at least temporarily, by hurricanes and other impacts) and continued conservation-supporting studies. In 2005, one of the multi-partner studies, organised by UKOTCF as part of these, discovered the problem of the disease devastating the native Caicos pine, TCI's national tree. Here, Bryan Naqqi Manco, Project Officer for the earlier programme and later driving force of the Caicos Pine Recovery Project, summarises the 15 years of effort, many setbacks and progress of the Caicos Pine Recovery Project.

In October 2020, the Pine Rocklands Working Group, based in southern Florida with partners in the Bahamas and Turks and Caicos Islands, hosted their biennial conference themed *22 Years Later: Past, Present & Future of Pine Rocklands*. The Pine Rocklands Working Group is a network of professionals and enthusiasts of the globally imperilled pine rockland ecosystem, which is found only in three of the Caicos Islands, four of the Bahamas Islands, and in fragments of less than 2% of its former coverage in southern Florida.

The ecosystem is maintained by the foundation species of tropical pines (Caribbean pine *Pinus caribaea* var. *bahamensis* in the Bahamas and Turks and Caicos and southern slash pine *Pinus elliotii* var. *densa* in Florida), and is fire-dependent. The ecosystem is locally called pine yard in Turks and Caicos Islands and is present on North and Middle Caicos, with an additional unique population on Pine Cay growing on sand rather than limestone bedrock. For the last 15 years, the Caicos pine, Turks and Caicos Islands' National Tree, has been the focus of a major conservation and habitat restoration effort, and a summary of this ongoing work was presented in the Pine Rocklands Working Group 2020 Conference.

This work initially began in 2005, during a field visit of biologists to Middle Caicos for the Overseas Territories Environment Programme (OTEP)-funded Biodiversity Management Project centred on Middle Caicos. This project was part of a joint programme of the Turks & Caicos National Trust (TCNT) and the UK Overseas Territories Conservation Forum (UKOTCF) and built on earlier work, led by UKOTCF & TCNT, on initial

biodiversity cataloguing that had taken place on their other projects. It was the broad professional and voluntary network of UKOTCF that introduced expertise from several world-renowned institutions including: Royal Botanic Gardens, Kew; Fairchild Tropical Botanic Garden in Miami, USA; CABI BioScience International; San Diego Zoo; and others for this biodiversity cataloguing fieldwork.

During a foray into the pine yard habitat, RBG Kew researchers noticed a scale insect in high numbers on the trees, as well as a few severely weakened trees. Over the next three years, repeated visits showed considerable spread of this insect, and the first



Dr Chris Malumphy of FERA examines a scale-infested sapling of Caicos pine.



In 2005, it was this stop where researchers from Royal Botanic Gardens, Kew (Martin Hamilton and Ben Pollard); Fairchild Tropical Botanic Gardens (Jimi Sadle); CABI BioScience (Dr Oliver Cheesman) and UKOTCF (Dr Mike & Mrs Ann Pienkowski) with Turks and Caicos National Trust conservation staff first discussed the potential impact of the invasive pine tortoise scale insect.

project to address it was funded to TCNT and RBG Kew. The first iteration of the Caicos Pine Recovery Project was funded by the Turks & Caicos Islands Government Conservation Fund. In 2008 the insect was identified by UK's Food & Agriculture Research Agency (FERA) as the pine tortoise scale insect *Toumeyella parvicornis*, an obligate true-pine pest native to North America, and most likely introduced on imported live-cut Christmas trees.

This two-year project brought in further expertise from the Bahamas National Trust, Bahamas Forestry Unit, The Nature Conservancy, United States Forest Service, and FERA; it initiated a programme of MSC Conservation Science student fieldwork from Imperial College London, and introduced us to the Pine Rocklands Working Group. TCI was represented in their 2008 conference and has been represented at every Pine Rocklands Working Group Conference since. The project



Above: Junel "Flash" Blaise of DECR ignites a line of fire during a controlled burn in Middle Caicos.

Below: Junel "Flash" Blaise of DECR trains a volunteer on "mopping up," controlled burn jargon for post-burn event fire control and extinguishing.



saw the initiation of the Caicos pine nursery, the beginning of seed-banking for TCI native plants, the mapping of the pine yards and remaining pine habitat, and the permanent monitoring plots with treatment trials on the three island populations of pine.

In 2010, a project application to OTEP was transferred from Turks & Caicos National Trust to the Department of Environment & Coastal Resources (DECR) and the second iteration of the Caicos



Experts and students from US Forest Service, US Department of Defence, RBG Kew, and Imperial College London tour the Caicos pine nursery in 2011.

Pine Recovery Project began. This project lasted three years and saw transfer of the nursery to North Caicos, the initiation of the controlled burn programme in 2012, as well as the establishment of the Diamond Jubilee Pine Yard, a habitat restoration area on Pine Cay. New partners, including the US Department of Defence and the University of the South Seawee, began working on controlled burning in TCI, and the Caicos Pine seed orchard was also established on North Caicos. During this project, it was documented that over 90% of the Caicos pine population had been lost to the effects of the invasive scale insect, including observation of the results of severely weakened trees being unable to survive salt-inundation from 2008's Hurricane Hanna and a subsequent 2009 dry-season wildfire.

RBG Kew remained the major partner and successfully bid for a Darwin Plus project *Caicos Pine Forests: Mitigation for Climate Change and Invasive Species*, along with DECR. This project focused on the production of a Caicos pine restoration strategy for the Turks & Caicos Islands Government to use to move forward with the conservation of the National Tree. It expanded the controlled burn programme and established the Caicos Pine Core Conservation Areas on the three pine islands. The Caicos Pine Recovery Project National Tree Restoration Strategy was presented to TCI Government in 2016 and duties for managing the ongoing conservation work were assigned to permanent DECR staff. This most recent iteration of the Caicos Pine Recovery Project focused heavily on field research to understand more about the Caicos pine and its ecosystem. Research was carried out on genetics, seed production, seed viability and germination, insect pests and natural predators, ectomycorrhizal fungi, tree and water stress, volatile chemicals, drone GIS mapping, fire ecology, horticultural conservation methods, and habitat restoration. The data were published alongside the *Restoration Strategy*, as were the horticultural methods and an intense sociocultural historic study of the human use of the pine and its ecosystem.

By 2013, the population of Caicos pine was calculated to be less than 3% of its original numbers. In an area that was burned in 2012, some recovery had taken place, but the trees were still covered with scale. The predictions by the habitat restoration research were that, while the North Caicos population was rather doomed, the Middle Caicos and Pine Cay populations should recover, though likely to an altered state. Research had shown that the seven species of ectomycorrhizal fungi were present; that trees were able to produce insecticidal compounds as long as not overstressed for water; and that, while pollen production was low, trees could still produce viable seed, albeit in lower numbers. Entomological studies revealed that natural predators were present, including ladybirds, lacewings, and a parasitoid wasp. Genetic studies showed that, while a few alleles were lost, there was still good diversity present. A few hurricane-free years of good rain cycles gave the trees what they should need to fight off the scale insects, but they were not doing it.

Finally, around 2018, a change began occurring on the Middle Caicos and Pine Cay populations. Scale insect infestation was notably less. Growth of pines was faster. It was as though, after countless work hours of local and worldwide experts, hundreds of thousands of pounds spent, and nature itself being gentler, the trees finally decided to join the effort on their own behalf.

In December 2019, during a training for the Bahamas Forestry Unit in southern Lucayan Archipelago plant identification, one of DECR's staff noticed something in the Middle Caicos pine yard. Under a young pine that had been producing fertile cones only for the last two years, several tiny seedlings were present. These were the first wild Caicos pine seedlings observed since 2010. While seedling survivorship is generally low compared to germination,



Above: Caicos pines have begun recovering well in Middle Caicos, particularly in and around the second fire plot which was burned in 2012.

Below: The first Caicos pine seedling observed in the wild since 2010 was able to get through its first critical year from this initial sprouting stage.



a few have managed to last their first year and create their woody trunks – a key milestone for their survival. The pine in Middle Caicos seems to be recovering, albeit – as predicted – towards an altered density and forest structure from those previous to the scale insect introduction. The work and money is finally paying off!

The monitoring and work continue, as do collaborations between DECR and RBG Kew and numerous other botanical, zoological,



Above: Primary school groups visit the Caicos pine nursery as part of the regular curriculum tour of Middle and North Caicos for 3rd and 4th grade students from elsewhere in the islands.

Below: The Diamond Jubilee Pine Yard, a restored habitat where over 300 nursery-grown Caicos pine saplings have been planted, is thriving on Pine Cay.



ecological, and conservation partners with whom we have relationships. These relationships are a testament to UKOTCF's purpose and vision, "providing assistance in the form of expertise, information and liaison between non-governmental organisations and governments, both in the UK and in the Territories themselves." Through the introductions of this expertise made by UKOTCF to Turks and Caicos National Trust and DECR, the collaborations have grown. Our introduction to Fairchild Tropical Botanic Gardens led to our introduction to the Pine Rocklands Working Group, which in turn led to further partnerships. Throughout the years, the Caicos Pine Recovery Project has partnered or received direct or in-kind support and expertise from no fewer than thirty organisations, institutions, and government bodies worldwide. All of them are in some way responsible for the success in part and demonstrate the need for such collaboration and exchange of expertise between the Turks & Caicos Islands, other UKOTs, and the UK and beyond.

The *Restoration Strategy* is available at https://www.researchgate.net/publication/299670841_Caicos_Pine_Recovery_Project_National_Tree_Restoration_Strategy_2016-2036_restoration_strategy_to_secure_the_Caicos_pine_for_future_generations.

UKOT/CD meetings of political leaders

The Joint Ministerial Council (a normally annual meeting of Chief Ministers of UKOTs or their equivalents or representatives) with UK Ministers was postponed from November 2019 due to the unexpected calling of a UK general election, and was postponed again from March 2020 due to Covid-19. It is now taking place remotely in late November 2020, two years since the previous one. The UKOT/CD Environment Ministers Council, again envisaged as annual, last met in early 2018 in the Isle of Man. Ministers decided to meet again when Brexit arrangements became clearer,

then expected to be in spring 2019 – but this proved not to be the case. A plan to meet in July 2019 was upset by the cancellation of a gathering to which this was to have been attached. Then plans for meeting in 2020 were disrupted by the constraints of Covid-19 and the diversion of key personnel to manage such measures. The environment ministers (and their equivalents for non-ministerial administrations) now plan to meet remotely in late April, by then also being informed by the conclusions of the March conference (see pages 1-3).

Tristan da Cunha declares huge marine protected area

UKOTCF is delighted to congratulate Tristan da Cunha (<https://www.ukotcf.org.uk/southern-oceans/tristan-da-cunha/>) on its declaration on Friday 13 November 2020 of one of the world's biggest sanctuaries. James Glass, Tristan da Cunha Chief Islander, announced: "Today we're delighted to announce our Marine Protection Zone, exactly 25 years after we declared Gough Island in the Tristan group a UNESCO World Heritage Site."

UKOTCF has had long involvement in Tristan, having helped, alongside colleagues from the University of Cape Town and Tristan Islanders, in the designation of the World Heritage Site, and its extension in 2004 to embrace also Inaccessible Island – as well as the designation of both these islands in 2008 as Wetlands of International Importance under the Ramsar Convention on Wetlands. Also, in the late 1990s, UKOTCF worked jointly with Jim Stevenson of RSPB to develop the first proposal for funding which initiated the long programme of study led by RSPB which has, in large part, led to the current designation – so the designation demonstrates yet again the value of, and need for, long-term resourcing of conservation projects.



*Tristan albatross Diomedea dabbenena off Gough Island.
Photo: Dr Mike Pienkowski*

The Tristan da Cunha archipelago lies over 2,700 km from South Africa and 3,700 km from the nearest shores of South America. The island of Saint Helena is the closest land, 2,400 km away to the north. This makes the archipelago one of the most geographically isolated island groups in the world, and Tristan itself the most remote inhabited island in the world, as the Islanders stress. There are four main islands: Tristan itself (the only one inhabited by a human community – of about 250), Inaccessible and Nightingale, all within sight of each other, with Gough about 350 km SE, thereby giving the exclusive economic zone – and now its marine protected area – a sort of '8' shape. Gough has a weather station, staffed by a small South African team, each of whose shifts lasts 12 months.

This mountainous island group is home to tens of millions of seabirds, and several unique land birds. It includes the World Heritage Site of Gough and Inaccessible Islands. Gough is arguably one of the most important seabird islands in the world, with Inaccessible hugely important too. There are 25 seabird species that breed in this isolated archipelago, four of which are unique

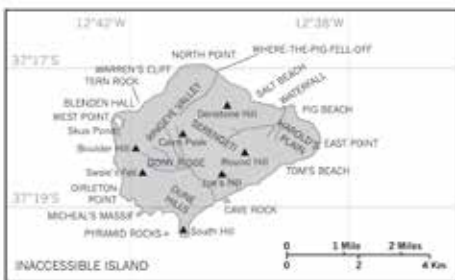
to the Tristan archipelago, as well as being globally threatened: Tristan albatross, Atlantic yellow-nosed albatross, Atlantic petrel, spectacled petrel.

99% of the world population of northern rockhopper penguins (known by Tristan Islanders as pinnamins) breed here, in rookeries throughout the Tristan archipelago. They are so characteristic of the islands that the islanders sometimes call themselves 'rockhoppers'.

The islands support also breeding populations of fur seals and elephant seals, now recovering from the hunting of the 19th century. Many cetacean species are found in the offshore waters, including southern right whales,

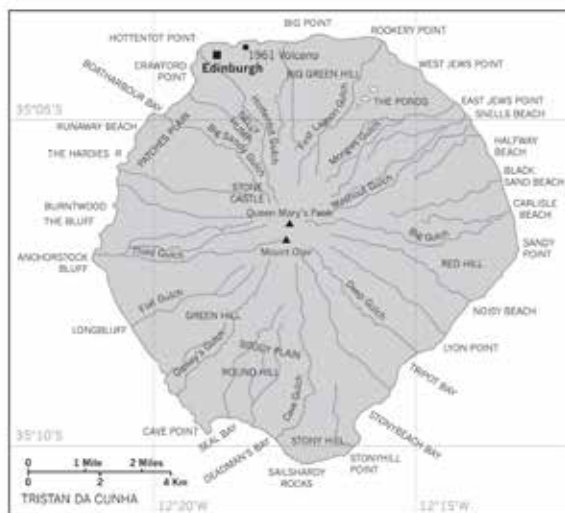
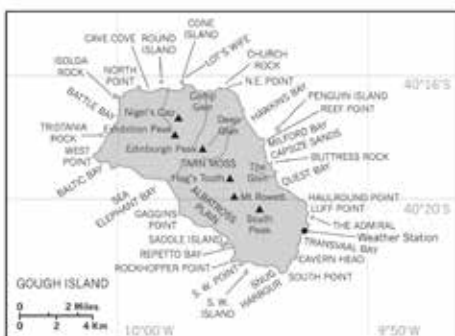


Tristan's famous sign; Photo: Dr Mike Pienkowski



TRISTAN DA CUNHA

The Tristan group are all volcanic islands of various ages, Tristan itself being the most recent, with a small but disruptive eruption adjacent to Edinburgh in 1961. The topography of all reflects this, rising to central peaks of about 6750 feet (Queen May's Peak) on Tristan, 1300 feet (High Ridge) on Nightingale, 2000 feet (Swale's Fell) on Inaccessible and 3000 feet (Edinburgh Peak) on Gough.

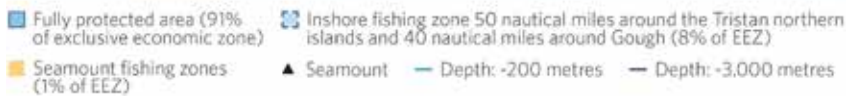
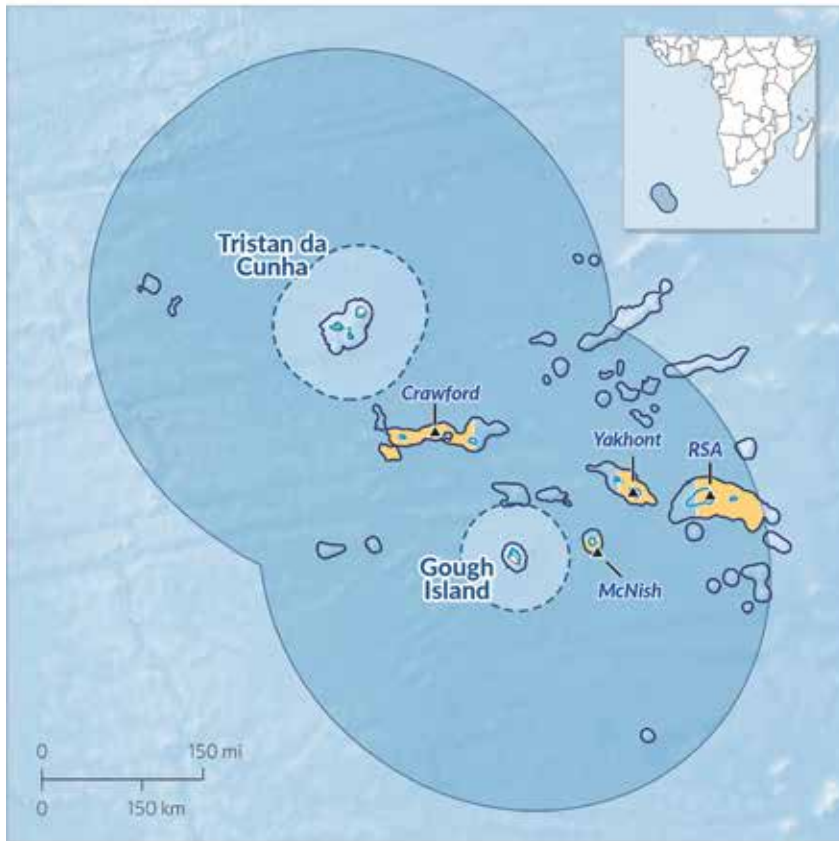


SOUTH ATLANTIC OCEAN

© UK Overseas Territories Conservation Forum 2010

Tristan da Cunha Marine Protection Zone

Fully protects over 687,000 square kilometres in the South Atlantic Ocean



Note: Cargo shipping vessels must avoid a 25-nautical-mile buffer around each of the islands.

Sources: Royal Society for the Protection of Birds; NYU Spatial Data Repository; GEBCO; MarineRegions.org; Natural Earth

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sperm whales, humpback whales, long-finned pilot whales and Shepard's beaked whale, as well as several species of dolphins, while threatened sharks breed offshore.

The 687,247km² Marine Protection Zone – almost three times the size of the UK – will safeguard one of the world's most pristine marine environments and protect the wealth of wildlife that lives there. The Marine Protection Zone will be highly protected, with no fishing or other extractive activities permitted across the whole area. This makes the Tristan islanders the guardians of the largest no-take zone in the relatively unprotected Atlantic Ocean, and the



Yellow-nosed albatross *Thalassarche chlororhynchos*, restricted to breeding in the Tristan group. Photo: Dr Mike Pienkowski



Spectacled petrel *Procellaria conspicillata* off Tristan da Cunha group; this species breeds only on Inaccessible Island. Photo: Dr Mike Pienkowski

fourth largest on the planet.

UK Minister for the Environment, Lord Goldsmith, said: "We are hoovering life out of the ocean at an appalling rate, so this new marine protected area is really a huge conservation win and a critically important step in protecting the world's biodiversity and ecosystems.

"Tristan da Cunha islanders and this coalition of NGOs and Foundations have done an extraordinary thing and deserve real gratitude and praise. It means our fantastic Blue Belt programme has over 4 million square kilometres of protected ocean around the UK Overseas Territories."

A recent study by the University of California and the National Geographic Society (*A global network of marine protected areas for food*, published in *The Proceedings of the National Academy of Sciences (PNAS)*) found that banning fishing in 5 per cent or more of the ocean would boost global fish catches by at least 20 per cent in future.

The announcement, made by the Tristan da Cunha Government, helps the UK Government with its ambition to lead the global effort to tackle the nature crisis and secure protection of 30% of the world's oceans by 2030. The UK has a duty to protect the wildlife found in all of its Territories and will be responsible for long-term monitoring and enforcement of this vast marine zone.

Tristan da Cunha has a long history of protecting its unique environment. The Government of Tristan da Cunha has operated exemplary management of its sustainable lobster fishery, the basis of its economy. As noted above, this latest success is the result of 20 years of hard work, including recently a five-year programme of UK Government Blue Belt support, followed by an international coalition of partners who have generously supported the final phase. The islanders have partnered with RSPB, National Geographic, the Blue Nature Alliance, Becht Family Charitable Trust, Blue Marine Foundation, Wyss Foundation, Kaltroco and Don Quixote II Foundation to enable this large-scale declaration. British Antarctic Survey, University of Plymouth and the Natural History Museum also provided key scientific support to the Tristan da Cunha Government.

James Glass continued, "Our life on Tristan da Cunha has always been based around our relationship with the sea, and that continues today. The Tristan community is deeply committed to conservation: on land, we've already declared protected status for



Seal hunts underwater in Tristan's seas. Photo: National Geographic Pristine Seas

Inaccessible Island rail, found only on Inaccessible Island and one of Tristan's endemic landbirds – and the smallest flightless bird in the world. Photo: Dr Mike Pienkowski

more than half our territory. But the sea is our vital resource, for our economy and ultimately for our long-term survival. That's why we're fully protecting 90% of our waters – and we're proud that we can play a key role in preserving the health of the oceans.

“The Blue Belt Programme, RSPB and many others have been valuable partners in helping Tristan da Cunha develop its marine protection strategy. Our long-term relationships have been a strong foundation for this project: to help ensure the unique biodiversity of our archipelago, for the future population of the planet.”

Beccy Speight, the RSPB's chief executive, said: “Tristan da Cunha is a place like no other. The waters that surround this remote UK Overseas Territory are some of the richest in the world. Tens of millions of seabirds soar above the waves, penguins and seals cram onto the beaches, threatened sharks breed offshore and mysterious whales feed in the deep-water canyons. From today, we can say all of this is protected.

“In 2020 the importance of having nature in our lives has never been clearer. While Tristan da Cunha may be far away in distance it is still close to our hearts and protecting it is still the UK's responsibility. Closer to home, the crisis facing nature is also huge. So huge that our wellbeing, our economic future, and our very survival depend on the choices we make now about the natural world. We need politicians to emulate the leadership of this small community to help us build the world we all want to live in. We

hope today's fantastic announcement is the first of many more that help revive our world.”

Enric Sala, National Geographic Society Explorer-in-Residence, said: “It is testament to the vision of the Tristan da Cunha community that one of the world's smallest communities can make the single biggest contribution to global marine conservation this year. We can all look to Tristan for inspiration as the world commences a decade of work to protect 30% of the global ocean by 2030.

Tristan da Cunha is one of very few places in the world which can offer a baseline for an almost unimpacted temperate marine system and is recognised as one of just 62 global marine provinces, so is essential for building a globally representative network of marine protection. This zone will be the largest no-take zone ever to be established in the Atlantic and is likely never to be surpassed in scale.

There is a link to a short celebratory video relating to the Tristan MPZ announcement, produced by RSPB and National Geographic at: <https://youtu.be/WnCLeRCJevs>. Chief Islander, James Glass (untitled on the clip) can be seen on UK's Channel 4 News here: <https://www.channel4.com/news/british-overseas-territory-tristan-da-cunha-to-create-giant-marine-sanctuary>.

Gough Island Shipwreck

Potential environmental ramifications are still unfolding after a fishing vessel which operated Tristan da Cunha's sustainable fisheries and passenger facilities for islanders was wrecked off the coast of Gough Island, on Thursday 15th October. Gough Island is one of the most important seabird breeding colonies in the world and holds several species of endemic land- and sea-birds. Along with Inaccessible Island, also in the Tristan Group, it is one of UK's World Heritage Sites.

The South African Maritime Authority (SAMSA) reported that the ship *MFV Geo Searcher* had been within a mile north of the island before it seemingly struck underwater rocks – causing it to take on water rapidly and sink. Thankfully, there were no human casualties, and all 62 people on board managed to evacuate safely when the captain made the decision to abandon ship, once she was listing at 45 degrees. Leaving the ship in lifeboats, they sought refuge on the nearby island where



The MFV Geo Searcher down at the stern and listing severely as she sinks off Gough Island. Source: Tristan Government and Tristan Association website.

they spent six days sheltering in Gough's weather stations (which, incidentally, usually accommodate a crew of just six people!) until rescue arrived on 21st October via the *SA Agulhas II*. The rescue operation first dropped two Tristan islanders, who were onboard

the *Geo Searcher* as Fisheries Observers, back to Tristan, where residents donated clothing and food for the other survivors, before heading on to South Africa and arriving in Cape Town on 26th October.

Before it travelled to Tristan from Gough with the *Geo Searcher*'s seafarers on board, *SA Agulhas II* first returned to the location where the *Geo Searcher* sank in order to conduct an environmental inspection around the wreckage, to check for any oil spillage at the surface.

Tristan now has an *Oiled Wildlife Response Plan*, developed following the 2011 *MS Olivia* shipwreck upon Nightingale Island, which caused a grave oil spillage damaging the surrounding ecosystem and harming northern rockhopper penguins and others of Nightingale's seabirds. Details of this clean-up operation can be read here: <https://www.tristandc.com/news/msolivacleleanup.php>.

Invasive species are another potential threat from the *Geo Searcher*'s shipwreck, and one previously faced following the grounding of the Oil Platform *PXXI* in 2006, which brought Brazilian porgy fish to Tristan. As the *Geo Searcher* regularly sailed in Tristan waters, the potential for invasive species is thought to be low – but as of yet, there has not been any formal coverage

regarding the potential pollution or invasive species introduction. UKOTCF has been advised that the official regular updates will be posted on the Tristan website, www.tristandc.com, which, at the time of writing, had last been updated on 29th October concerning the shipwreck.

With the designation of Tristan's marine protection area (pages 11-13), it is to be hoped that steps will be taken to end the Islands' string of bad luck of three recent ship-wrecks.

Further information:

<https://www.lusa.pt/article/iMxgZUJMYwf7Rbz1558ujjMSZM5iuSII/portugal-nationals-escaped-by-miracle-in-geo-searcher-wreck-survivor>

<https://blog.samsa.org.za/2020/10/28/relief-at-last-as-a-62-sailors-rescue-mission-deep-in-the-atlantic-ocean-succeeds-samsa/>

<https://maritime-executive.com/article/seafarers-stranded-on-remote-south-atlantic-island-after-vessel-sinks>

<https://www.tristandc.com/shipping/news-2020-10-29-sinking-geo-searcher.php>

<https://www.tristandc.com/shipping/news-2020-10-15-geosearcherwreck.php>

Part of the British Antarctic Territory threatens South Georgia

Not a weird attack by one UK Overseas Territory on another, but another consequence of climate-change.

In mid-2017, a large part of the Larsen C ice-shelf, on the east side of the Antarctic Peninsula (and part of the British Antarctic Territory) broke free into the Weddell Sea, to form what is currently the world's largest iceberg, labelled A68. It is about 150 km (93 miles) long and 70 km (43 miles) wide and is estimated to weigh several billions tonnes.

For the last 3 years, A68 has been drifting up "iceberg alley", a well-known current, which leads north from Antarctica. After travelling about 1300 km (800 miles), by the start of November, it was around 500 km (300 miles) from the coast of South Georgia. Although some pieces have broken away and the iceberg will be a little thinner due to melting, A68 has remained largely in one piece.

British Antarctic Survey scientists consider that there is now a strong chance the iceberg could crash into the island, which is about the same size as the iceberg itself. They indicate that, if this happens, the huge wall of ice will block access to the sea for species such as penguins and seals, which need to fish to feed their young on land. It would also crush all life on the seabed as it touches down.

In 2004, a previous iceberg – A38 – ran aground off South Georgia, leaving huge numbers of dead seal pups and young penguins. A68's estimated submerged depth of around 200 metres could allow it to run aground right against the coastline.

The iceberg could last for several years, potentially taking up to a decade to melt if it becomes grounded on South Georgia, with a prolonged major impact on wildlife for several years.

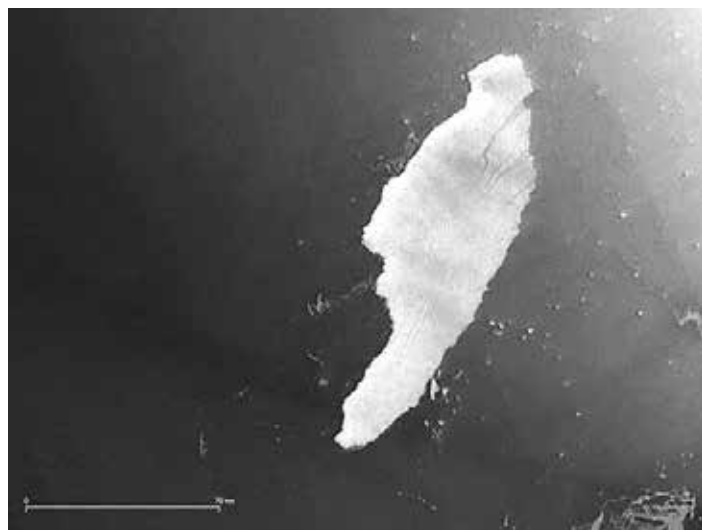
Andrew Fleming, remote sensing manager at the British Antarctic Survey, told *The Independent* online newspaper in early November: "It's probably weeks away (from South Georgia), but we know that at this time of year it has the potential for interrupting the foraging journeys the penguin and seal parents make when feeding. If there are any barriers or blockages in the way, it interrupts the time it takes them to do that, and return the food to their young, and that then can impact the populations and survivability.

"It's not just the impact on the animals that live on the island, but any iceberg grounding is scouring the seafloor. You can see these



Above: European Copernicus Sentinel-1 Satellite images acquired on 13th & 18th September 2017 show A68 breaking away from the Larsen C iceshelf. The solid white bar is a 20 km scale.

Below: Satellite photo of iceberg A68 taken by Copernicus Sentinel-1 satellite, showing an ice trail. The thin bar is a 70 km scale. (Copernicus/British Antarctic Survey)



massive scourings of the sea floor where the keel of the iceberg drags through, and of course, that's not good news for ... the benthos; it takes a significant time for these species to recover."

“It’s shedding thousands of smaller bergs around it,” Mr Fleming said. “The satellite image is spectacular. It has one big berg, but looking more closely at it there are thousands and thousands of smaller ones.”

“It’s potentially more of a shipping risk [than the main iceberg]. Ships are easily able to deal with 160 km worth of berg, but what’s less obvious is the number of fragments in the water, which is really difficult to see.”

Stony Coral Tissue Loss Disease - an update on this major threat to biodiversity and the economy: rapid effective action needed before it is too late

UKOTCF and its Wider Caribbean Working Group have reported on the deadly progress of Stony Coral Tissue Loss Disease across the Caribbean, and efforts being made to combat it, since being made aware, in July 2019, of its appearance in the Turks and Caicos Islands. *WCWG eBulletin 28* produced in October 2020 gives a review of this major threat to coral reefs, biodiversity and economies, including progress as reported at that time, and the scientific evidence for various treatments.

First noted in Florida in 2014, it spreads rapidly, kills corals within a matter of weeks, and, unlike coral bleaching, once “dead”, corals stay dead. It is likely to be caused by a bacterial infection, and can be spread by water current, fish, divers, and possibly ballast water from ships.

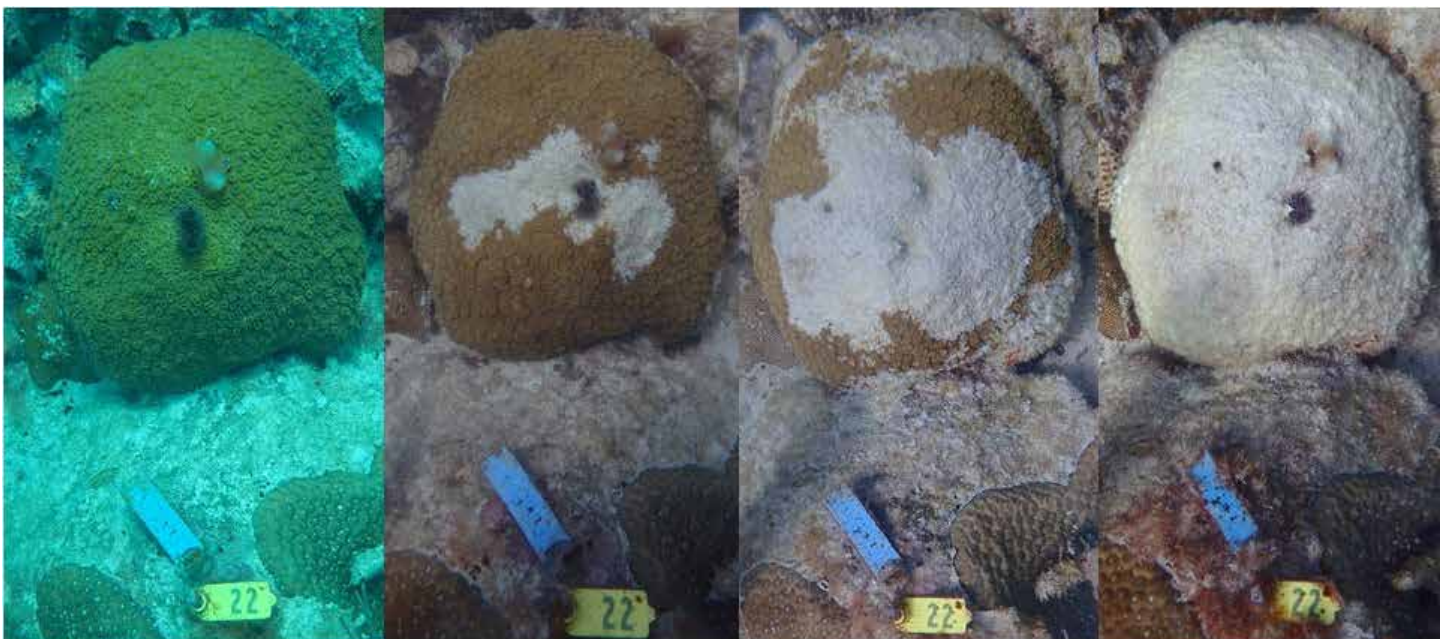
Scientists in Florida have trialled various treatments in a huge endeavour to combat this disease. This research has cost over \$1.5m and involved the Florida Department of Environmental Protection, the Florida Fish and Wildlife Conservation Commission, the University of Florida, the Mote Marine Laboratory, Nova Southeastern University, MPACConnect (a partnership between the Gulf and Fisheries Institute GCFI and the US National Oceanic and Atmospheric Administration NOAA) and the Atlantic and Gulf Rapid Reef Assessment programme AGGRA. A volunteer group of former elite combat divers working as an NGO, Force Blue, logged 1250 dive hours along an 80-mile stretch of Florida coastline to support this work.

WCWG eBulletin 28 presents the results of these investigations.



A Force Blue team treating an infected coral with amoxicillin paste. A response priority has been active in-water intervention to treat diseased corals. As such, a collaborative coral disease response strike team was established between Nova Southeastern University (NSU) and FORCE BLUE, a non-profit organization composed of former elite combat divers who are retrained and deployed on missions of conservation.

The only effective treatment was with an antibiotic paste, amoxicillin. Treatments with placebos and chlorinated epoxy were not successful against SCTLD. The amoxicillin treatment



March 1, 2018
99% Alive, 1% Old
Rapid Tissue Loss

March 18, 2018
89% Alive

April 5, 2018
35% Alive

April 19, 2018
0% Alive

Photo credit: Florida Fish and Wildlife Conservation Commission

*The speed of progression of Stony Coral Tissue Loss Disease, and the need for effective action, is illustrated by this photo sequence.
Photos: Florida Fish and Wildlife Conservation Commission*



Experts convene at Stony Coral Tissue Loss Disease Workshop, Key West – 1-2 August 2019. Attendees at the workshop included Alizee Zimmerman, Turks & Caicos Reef Fund (TCRF), Roddy McCleod, TCI Department of Environment and Coastal Resources (DECR) and Ms. Argel Horton from the Ministry of National Resources, Labour and Immigration, British Virgin Islands. The workshop resulted in agreement to proceed using only amoxicillin paste. At the time of the workshop, the Cayman Islands were not affected [presence notified June 2020] and, to date, Anguilla, Bermuda and Montserrat have not reported SCTLD presence. Photo: Gulf and Caribbean Fisheries Institute (GCFI)

is expensive and very time consuming (but less so than the ineffective chlorine bleach treatment). It is suggested that the way forward in the future for the long-term species survival of these reef-building corals is *ex-situ* conservation of the corals, so that they can be used to re-populate the reefs at a future date.

Of course, the concerns of using an antibiotic in the marine environment need to be examined and addressed. The scientific teams working on this in Florida developed protocols to minimise the risk, and found that the quantity of antibiotics being introduced through SCTLD treatment was low compared to background levels arising from sewage outflow.

This is the situation in the UKOTs at time of writing. In the Turks & Caicos Islands, the Turks & Caicos Reef Fund (TCRF), an NGO, working under a research permit from the TC Department of Environment and Coastal Resources (DECR) is treating affected corals with amoxicillin paste. DECR, under guidance and with funding from the UK Government via the Joint Nature Conservation Committee (JNCC) are re-starting their comparative treatment using chlorinated epoxy, which was halted previously due to Covid 19 restrictions.

In the British Virgin Islands, corals are being treated with amoxicillin paste in a collaborative effort, also involving the US Virgin Islands.

The disease was found in Cayman in June 2020. At time of writing, 45 dive sites have been closed, and a workshop has been held by the Department of Environment (DoE) to inform water-sports operators. Dr Croy McCoy from the DoE noted that the only treatments that have shown any impact so far were antibiotic and probiotic therapeutics, which DoE is now trying. At the time of writing, SCTLD has not been reported from Anguilla, Bermuda, and Montserrat.

Corals have been under threat for some time due to rising sea-temperatures and ocean-acidification. Many tourists visit the Caribbean for the beach and diving experience. Covid 19 restrictions have already had severe impacts on the tourism income

for the Caribbean UKOTs. If the coral reefs are lost, how will the tourism industry recover once Covid 19 is under control? Just as importantly, the ecosystem services provided by the coral reefs, like coastal protection and fisheries, are under threat. SCTLD kills corals so rapidly that rapid effective action is needed if this vital ecosystem and biodiversity are to be saved.



A slide from: Doyle, E. and O'Sullivan, C. 2019. Stony Coral Tissue Loss Disease Template Monitoring and Response Action Plan for Caribbean Marine Natural Resources Managers. August, 2019, Key West, Florida. <https://reefresilience.org/wp-content/uploads/MPAConnect-Template-Monitoring-and-Response-Action-Plan-October-Final2.pdf>

Volunteers start beach clean-up in Cyprus SBAs

UKOTCF was pleased to be contacted in November 2020 by Roman Yudnikov, who lives in Limassol, just east of the Akrotiri (Western) Sovereign Base Area of Cyprus.

He had visited Lady's Mile Beach, in the SBA, for the first time 3 weeks earlier, and saw large quantities of garbage everywhere on the beach. So, he started to clean up the beach, filling 5 large garbage bags. Next, he organised a small volunteer group and they cleaned up approximately 20,000 m² in one day, and 30,000 on another. Here are some of his pictures.

The volunteer team would like to keep on cleaning the territory of Lady's Mile Beach and erect information signs for visitors, asking them to take their rubbish away with them or put it into a bin, and develop other public-awareness measures.

Roman asked UKOTCF to put him in touch with the SBA

Administration – which we were, of course, pleased to do.

SBAA's Environmental Policy Officer was delighted to be put in touch, because this matched very well with an initiative that the SBA Administration is about to start to address this litter problem at this location and elsewhere. So UKOTCF wishes them both well in a potential collaborative approach.

We are pleased that UKOTCF's website (ukotcf.org.uk) has yet again proved useful in advancing environmental conservation. The activity also fits well with UKOTCF's current work with Plastic Free Jersey on trying to build a platform for citizen scientists and conservationists across the UK Overseas Territories and Crown Dependencies to collect information and coordinate action on plastic waste, which is being submitted for funding in 2021.



Clean-up activity on Lady's Mile Beach, Akotiri, Cyprus SBAs: above: left: Limassol in the background; centre: a day's clean-up; right: some of the volunteer team; below: three temporary signs were made from waste wood collected by the team and constructed by a couple from Finland.

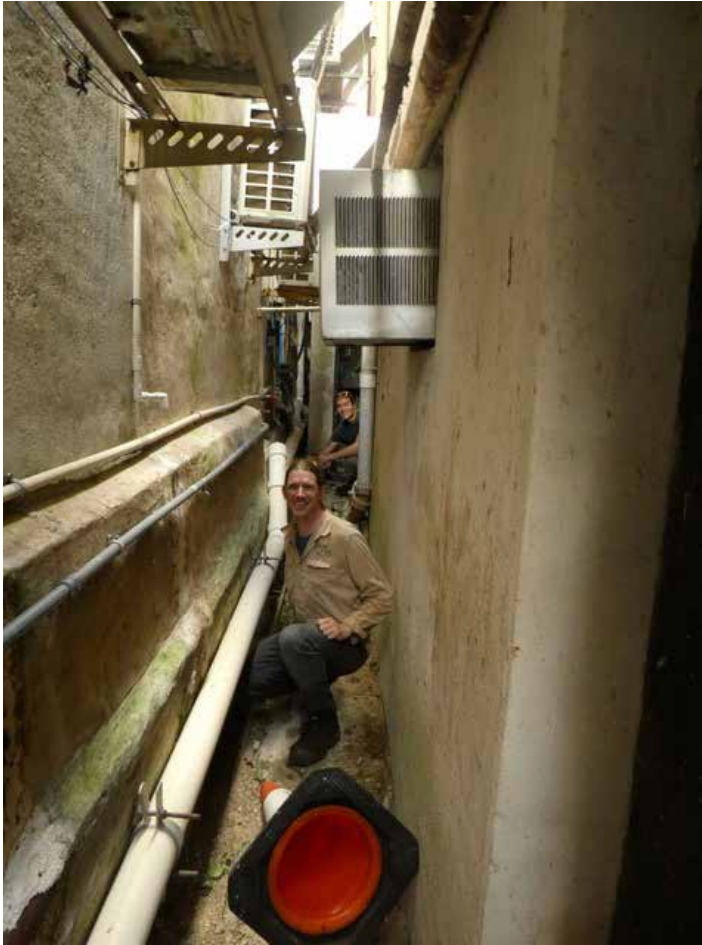
Photos: Roman Yudnikov



The Greater Bermuda Land-snail success story

Regular readers of *Forum News*, will recall that, several years ago, a small population of Bermuda snails, thought to be extinct, were re-discovered in an alleyway behind an ice-cream shop. What began was a conservation programme, which has been hailed locally and internationally as one of the top conservation success stories of last year.

There are many different snails found in Bermuda today, but there are several endemic species – that is, found nowhere else on Earth. The genus *Poecilozonites* contains at least 12 species of land-snails, which are all endemic to Bermuda. Two species, the lesser Bermuda land-snail *Poecilozonites circumfirmatus* and the greater Bermuda land-snail *Poecilozonites bermudensis* are extant; the rest are extinct.



Tamas Papp from Chester Zoo and Lawrence Doughty from Bermuda DENR searching the Hamilton Alley in February 2020 for *P. bermudensis*. We found hundreds! All photos in this article: Alison Copeland, Bermuda Department of Environment and Natural Resources.

It was the greater *P. bermudensis* which was believed to be extinct by the early 1990s, but was rediscovered in 2014, around 40 years after its last sighting in the wild. A healthy colony of these snails turned up in the heart of Bermuda's capital city, Hamilton, in a damp and overgrown alleyway. A captive breeding programme was set up by the Bermuda Department of Environment and Natural Resources, with support from several UK zoos and snail researchers. *P. bermudensis* has been bred in Bermuda and at ZSL London Zoo and Chester Zoo in the UK. The breeding was so successful that, in 2019, 18,000 individuals were released into the wild, with a further 10,000 being released in 2020.

The lesser *P. circumfirmatus* was formally assessed as Critically Endangered and possibly extinct in the wild in August 2019. Formerly widespread across Bermuda, its decline has been linked with the spread of invasive invertebrate predators, especially



Above: Dr Mark Outerbridge (DENR) and Amber Flewett (Chester Zoo) releasing *P. bermudensis* raised at Chester Zoo in July 2019.
Below: Some of the released *P. bermudensis*.



flatworms and snails, particularly the rosy wolf snail *Euglandina rosea* (introduced in the late 1950s & 1960s in a misguided attempt to control another introduced snail *Otala lactea*). Habitat loss and alteration, largely due to built development, also probably contributed to declines. Following on from the success of the greater Bermuda snails, teams from the Zoological Society of London and Chester Zoo began captive breeding of the lesser Bermuda snail. This was a world first, in that two species have been reintroduced as part of a conservation breeding and release programme. In April 2020, it was reported that 800 individuals were returned to the wild at four new locations, bringing the total to nine sites since reintroduction efforts began.

A virtual tour for Bermuda has now joined the fairly recently completed new ones for the British Antarctic Territory, the Isle of Man, Cayman Islands, South Georgia & the South Sandwich Islands, and the Cayman Islands and the others already available on the web-site (www.ukotcf.org.uk/virtual-tours/).

Climate Emergency Gibraltar

“We will soon know who will be the next US President. But, sadly, today also marks the US leaving the Paris accord – the world’s foremost attempt to build consensus on climate change. Whoever is elected has an immense responsibility to help tackle our planet’s greatest challenge.”

So tweeted former UK prime minister Theresa May on 4th November 2020, on the eve of the US election result. The world has been fixated on Covid-19 since the pandemic began, so much so that even for those of us for whom it is such a pressing issue, even Brexit has taken a backseat, and it is easy to forget that this is now just around the corner. But Mrs May is right to highlight what many of us may have forgotten recently: climate change remains the planet’s greatest challenge, impacting factors as diverse as wildlife conservation, food production, water availability, human population displacement and indeed disease. Our generation’s response to the problem could become our most enduring legacy.

When faced with the pollution produced by the larger and most industrialised nations, it is all too easy for small communities to conclude that there is little that they can do to change the world. But climate change is a global problem that requires global action. We should all, as individuals, strive to minimise our impact on the climate. All communities in this incredibly interconnected world, from the largest to the smallest, need to come together to solve this most pressing challenge.

It is in this spirit that a motion tabled by Environment Minister John Cortés received unanimous support in Gibraltar’s Parliament, with a Climate Emergency declared on 3rd May 2019. It was only the second such parliament to make such a declaration, with the House of Commons having done so two days earlier. Whilst the gesture is largely symbolic, it is a call to action for the community to support all measures necessary to combat climate change in Gibraltar. However, it does include a pledge to make Gibraltar carbon-neutral by 2030, and to reduce emissions by 50% by 2035. HM Government of Gibraltar also included a commitment to work with other governments in the UK family, as well as regional partners. The support for the motion from opposition parties underscores the seriousness with which the issue is taken across the political platform.



Above and below: Views of Gibraltar’s climate-change march

Gibraltar has no fewer than three environmental NGOs that fill different niches but provide support for each other and often campaign together. They are the Gibraltar Ornithological & Natural History Society (GONHS), the Environmental Safety Group (ESG) and The Nautilus Project (TNP). The NGOs welcomed the motion but went further, forming the Coalition for Climate Action, together with the Gibraltar Heritage Trust (GHT) and some social media action groups. The group was formed in response to heightened awareness of climate change and the emergency pledge made by the Government to take meaningful action on this critical issue. One of the coalition’s key aims is the setting up of a fully independent climate body, tasked to roll out a cross-party-supported agenda, set in a timeframe that binds future administrations, to oversee action on pollution, waste, energy, transport and development.

The group has organised demonstrations to increase public awareness still further and urge the government to begin taking urgent action immediately. 20th September 2019 saw the Coalition for Climate Action march down Gibraltar’s Main Street towards the Chief Minister’s office, to hand in a petition to the Government calling for immediate action to address the climate emergency. This followed a similar march in August 2019. Representatives of the coalition were met at No. 6 Convent Place by Minister Cortés, where they discussed the petition and the CCA’s concerns regarding current action on climate change in Gibraltar. The march also coincided with a global climate strike, which saw millions around the world take to the streets demanding action be taken to combat the damage being done to the planet by human-induced climate change.

Unfortunately, focus has recently been withdrawn from the climate emergency due to the pandemic, and Gibraltar has a potentially big hurdle to overcome imminently, depending on the final outcome of the Brexit negotiations. Furthermore, marches and demonstrations are currently impossible due to the pandemic. However, as the world gradually normalises, Gibraltar will hopefully continue to move towards its own contribution to this most pressing of global problems.

Article by Dr Keith Bensusan, GONHS



Inter-Island Environment Meeting goes virtual

This year the Inter-Island Environment Meeting was to have celebrated its 20th birthday in Guernsey. For obvious reasons it had to be a virtual event this year. Taking place over two days from 17th to 18th September, around 80 participants attended. The theme of the meeting was looking forward to the UN Decade of Ecosystem Restoration.

Nick Baker, TV presenter and invertebrate enthusiast provided the opening address. He recalled how, in his experience, informal meetings had been the start of many conservation successes he had been involved in. They are important as they provide opportunities for information to flow and ideas to be generated. He talked about some examples of trans-boundary cooperation and building partnership, which were highly relevant to small island locations such as the Channel Islands.

of marine pollutants.

Francis Binney, States of Jersey, described how citizen science has driven the blue agenda in Jersey for over a decade. He gave many examples whereby community groups have collected biological data actively contributing towards conservation. Data are then used for better management of important sites. In some cases this has resulted in extensions to boundaries of areas under protection.

Julia Henney, from the States of Guernsey, presented an outline of the habitat changes seen on island in the last 20 years. There has been a severe decline in natural habitat over this time but, following on from a report produced in 2018, the States were now beginning to address this. Such work includes: increasing the value of woodland and gardens, reducing the loss of species rich grasslands to scrub or woodland and to protect grasslands.

Roland Gauvain from the Alderney Wildlife Trust and Ann Burgess from the States of Alderney outlined activities to encourage sustainable tourism and nature conservation on Alderney. Since 2012 the value of wildlife tourism and heritage tourism has been valued at £2.6million and £1.9million, respectively. Linking these, the *Living Island* project, which celebrated the island's



Individual bottle-nosed dolphins are identified by the natural marks and patterns on their dorsal fins. Information is then input to the database. From 2004 to 2018, a total of 63978 pictures were taken. There are 802 dolphins in the catalogue, with 275 dolphins identified in 2018.

Image: Centre d'Ecologie Fonctionnelle et Evolutive

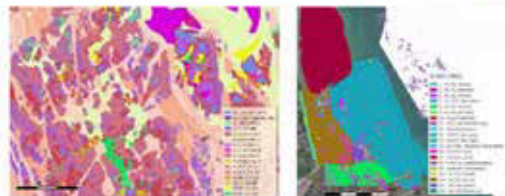
In the face of missed UN Convention on Biological Species Aichi targets, and as a result of the global pandemic, Nick said: "2020 is the year we woke up and noticed nature. We didn't necessarily do the right thing by it, but at least we valued it."

"When we are denied green space, it is what we want. This has been a massive shift in the way we view the natural world, and I think we [as a conservation community] have that on our side."

The presentations began with Pauline Couet, Centre d'Ecologie Fonctionnelle et Evolutive, Montpellier, France introducing some of the work on bottle-nosed dolphins. Her work involves researching population dynamics, which she shares with other researchers and data collectors via a collaborative digital platform, OBSenMER. This has open access and allows anyone to collect, save and share observations at sea. Her team believes that there are around 450-500 dolphins living in the coastal area around Cotentin and the Channel Islands, which is thought to be the largest population in Europe. Other research currently ongoing is looking at their diet and the effects

Habitat mapping

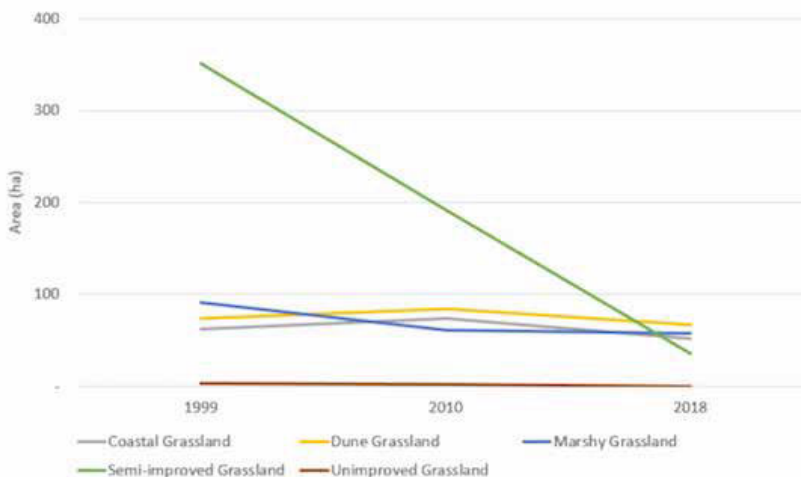
- Over 20,000 habitat and species records made over 10 years covering all representative coastal areas on Jersey's coast and reefs entirely by volunteers.
- 34,000 subtidal biological records made through seaserch
- Les Minquiers Interactive Habitat Map



An example of data collected by the local community, which has been used to produce a habitat map. Outputs also include a guide-book which has been used to generate some income for the local NGO, Société Jersiaise. Image: States of Jersey



Decline in Natural Habitats - grassland



Graph showing sharp decline in natural habitat in Guernsey over the last 20 years. Image: States of Guernsey

unique sites, integrated conservation gains for the island also. One such example is the Nunnery, the best-preserved Roman fort in Britain, which now incorporates the Alderney Bird Observatory. The ABO focuses on avian research, monitoring and education. The key to success has been the partnerships with government and local businesses. The wider implications of this work include the signing of the Blue Islands Charter (see *Forum News 51*: 1-2), which will lead to a ban on single-use plastics in 2021 and new legislation to protect wildlife on Alderney.

The afternoon session was an opportunity to share some of the challenges of Covid-19. John Pinel, now a Trustee of the National Trust for Jersey, gave an interesting view on how to integrate environment into economic thinking. He also talked about harnessing the public's appreciation for the environment, which was evident throughout the pandemic.

Nina Cornish, States of Jersey, talked about the difficulties arising from the lockdown in terms of teams unable to conduct surveys and site management. However, a public perception survey provided some encouraging results, notably that the public were more regularly visiting their natural sites and were appreciating time in nature. Future work will build on this.

Roland Gauvain (AWT) talked about a significant reduction in resources, e.g. funding via bursaries and grants, and being unable to utilise volunteers from outside of Alderney. During lockdown, some volunteers were able to use their exercise time to collect data, but there will be some gaps in data during this time. Going forward there are increased costs (including Personal Protective Equipment) to consider.

Alex Herschel, Environmental Sustainability Manager at Guernsey Electricity, shared the slide (below) which shows very clearly the dangers of slipping back into old habitats as we recover from the pandemic. Energy demand was significantly reduced during lockdown, but it soon crept back up to the same pre-lockdown levels as the restrictions were lifted. Environmental bodies need to make sure they are speaking the same language as industry and in a way in which the community feels it can make a difference in order to address climate change and biodiversity loss.

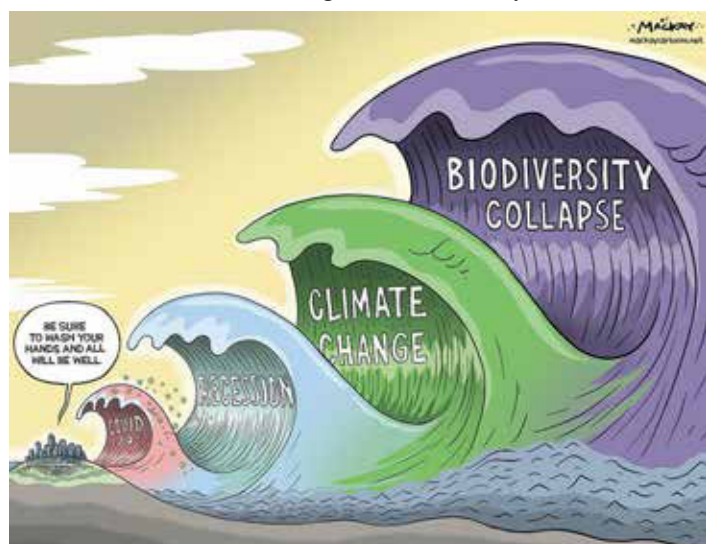


Image: Mackay

Presentations from the second day can be found on Youtube via the following link: https://youtube.com/channel/UC9h4_ysO6nm3HP6Xw9gYodw. They include an outline of the research being conducted, by Dr Miranda Bane of Bristol University, as part of the Pollinator Project, originally started on Guernsey but

Right and next page: Images of summary of workshop discussions.
Images: IEM2020

Communication guidance
IEM 2020 Guernsey

Terminology

- Keep it simple (instead of biodiversity, try using nature!)
- Remain positive (keep people enthused, rather than despondent)

Think Local

- What actions are appropriate for the Channel Islands?
- Help to find common ground

Be Inclusive

- Use technology (what about virtual field trips?) but make sure those who can't afford tech aren't left behind!
- Be a welcoming community
- Engage all ages, professions and levels of knowledge

And don't forget to share... knowledge, resources and ideas!

Biodiversity Partnership Inter-Island Environment Meeting #IEM2020

Communication guidance
IEM 2020 Guernsey

Be goal orientated

- Help keep messages constructive
- Help people see the impact of their actions
- Focus on getting people into the room/field/teach

Shout about nature

- Be loud and be vocal
- Communicate the value of nature: its mental health and wellbeing and to the economy!
- Try having an online presence to facilitate feedback

Think BIG!

- Be bold, try new initiatives
- Test out new ideas first to prove your concept and make the objective known
- Think outside the box (you may want help from people outside of the environmental sector; what about social scientists, businesses or marketing experts?)

And don't forget to share... knowledge, resources and ideas!

Biodiversity Partnership Inter-Island Environment Meeting #IEM2020

Things you can do today
IEM 2020 Guernsey

Community

Vote for the environment in elections

Make sure the right people are making the big decisions.

Lobby Deputies

Make sure nature is included in decision making and they are held to account.

Speak up about the schemes you support

Don't risk letting the vocal minority stop projects to protect our environment.

Do your bit at home

Lead by example in your gardens, alone we can do a little, together we can achieve so much.

Biodiversity Partnership Inter-Island Environment Meeting #IEM2020



now covering all the Channel Islands. Catherine Veron from the States of Alderney gave an outline of the new Alderney Wildlife Law. Paul Chambers talked about spatial modeling and future planning for Jersey’s marine environment. Tim Liddiard talked about habitat restoration on Jersey and Tim Earl gave an outline of biodiversity on the Isle of Man.

The final afternoon workshop looked at some possible solutions to the challenges presented by Covid. Disruption to communication seems to be a common theme across all sectors and this was a key focus when looking for solutions. Using the outputs from the workshop, the organising team made helpful guidance for all attendees.

Paul Hoetjes: stalwart of nature conservation in the Dutch Caribbean



Shortly before publication of this issue, UKOTCF learned of the sad passing of Paul Hoetjes, a stalwart of nature conservation in the Dutch Caribbean.

He studied biology at the University of Amsterdam and graduated with an MSc. His research focussed on marine biology, with the Caribbean Marine Biological Institute (Carmabi) based on Curaçao, where he had spent some of his teenage years. After graduating, he went on to have a long involvement in various aspects of marine research and conservation as well as international and regional multilateral environmental agreements (e.g. Specially Protected Areas and Wildlife [SPAW] Protocol, Inter-American Convention for the Protection of Sea Turtles [IAC], and International Coral Reef Initiative [ICRI]).

He was instrumental in ensuring the protection of an important marine area, the Saba Bank. In 2010, it was designated as a National Park covering an area of around 2,200 km² with a total reef area of over 150 km². He undertook coral-reef monitoring across the Dutch Caribbean islands and was a member of the Steering Committee of the GCRMN-Caribbean initiative. He recognised the importance of bringing people together and encouraged several UKOTs to be a part of this group and resulted in several bodies attending regional meetings.

Colleagues in UKOTCF worked with Paul on various biodiversity conservation initiatives of European overseas territories and regions, and many informal collaborations. Paul and UKOTCF personnel strived to keep each other informed so that Dutch and UK OTs could be aware of, and benefit from, European initiatives which might otherwise escape notice. Amongst these was NetBiome (NETworking tropical and subtropical Biodiversity research in Outer-Most regions and territories of Europe in support of sustainable development). We worked together too on getting support for nature conservation projects via the BEST (Biodiversity and Ecosystem Services in Overseas Territories) scheme, which, up until 2018, provided around 15m euros (with around 3.8million euros co-funding) for conservation in the EU overseas territories.

He lived for a long time on Bonaire where his knowledge and expertise were always called upon including: as advisor to local non-government organisations, the Sea Turtle Conservation Curaçao (STCC) and the Dutch Caribbean Nature Alliance (DCNA) of which he was a co-founder.



New book: *Birds of the UK Overseas Territories*

Birds of the UK Overseas Territories, edited by Roger Riddington, published 2020 by T&AD Poyser (part of Bloomsbury Publishing Ltd.), in association with *British Birds* and RSPB. 336pp; softback prices vary from about £24 to £35; hardback, about £60.

This book is based on a series of papers published in the journal *British Birds* at various times between 2008 and 2019. It is linked closely to the Important Bird Areas (IBAs) analyses for each territory before that, although, strangely, the original of that source, *Important Bird Areas in the United Kingdom Overseas Territories – priority sites for conservation*, published by RSPB in 2006 and launched at UKOTCF's conference in Jersey that year, is not cited. The re-use of edited versions of some of these by BirdLife International in 2008 as *Important Bird Areas in the Caribbean* is cited in one chapter. (IBAs were later renamed by BirdLife International as International Bird and Biodiversity Areas, although IBAs under the earlier definitions do not seem to have been re-assessed under any new definition.)

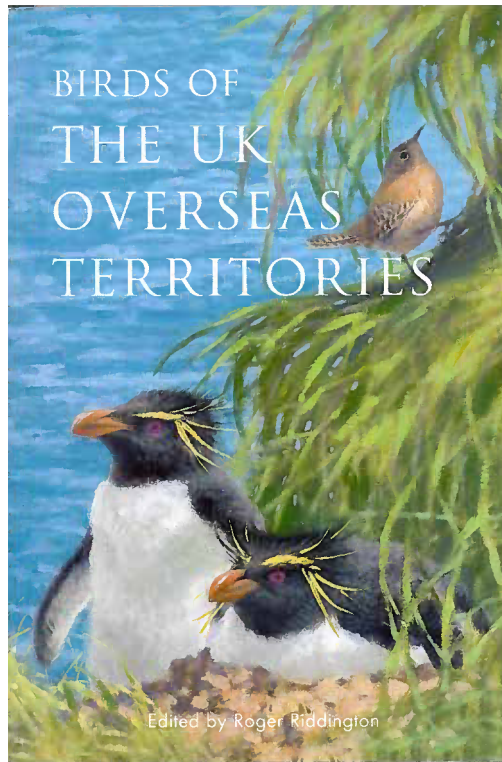
The reviewer declares an interest in that he was the author for the chapter on one of the territories in each of the two earlier source publications noted above, but confirms that he had no involvement or knowledge of the present publication or its chapters until approached to review it.

Overall, the chapters each read well and are supported by appropriate illustrations. They give a good impression of the territory concerned and its birds, together, in most cases, with some geographical and historical background, other wildlife and conservation issues. The way in which the information on birds is given varies between chapters, in appropriate ways, but usually includes information on IBAs as well as on the birds themselves.

The fact that the chapters were written as stand-alone papers spread over more than a decade leads to some anomalies. Attempts to overcome the time-spread have been made by updating notes for older chapters. However, these have not been used to overcome other inconsistencies. For example, IBA maps are provided for five of the UKOTs but not for the rest. This misses an opportunity to correct the maps in the original publications, for at least some of which the editors had failed to incorporate the final proof corrections from authors.

Coverage is also slightly eccentric. The chapter relating to Pitcairn covers only Henderson Island (admittedly a World Heritage Site and the best preserved raised atoll in the Pacific) but Pitcairn itself, Oeno and Ducie, the other islands of the territory all of which are also important for birds (see e.g. www.ukotcf.org/1_vTours/tour.cfm?locn=PIT&tourType=FULL), receive mention only in the brief 1-page updating note. The chapter on South Georgia makes no mention of the South Sandwich Islands (part of the UKOT of South Georgia & the South Sandwich Islands) – indeed SSI are not even labelled on the map of South Georgia's surroundings. There is more mention of SSI in the chapter on the different UKOT of British Antarctic Territory.

Treatment of site classification is also somewhat inconsistent. As one would expect from RSPB (part of the BirdLife International grouping), their own IBAs tend to be stressed throughout as



actual or proposed protected areas, but other proposed measures such as proposed Ramsar Convention Wetlands of International Importance or Tentative World Heritage Sites are not mentioned and, in some cases, statutorily designated Ramsar Sites are not mentioned either.

The *Introduction* identifies the extreme funding gap between conservation resources needed and those made available by UK Government, which continues to treat as very much second class these parts of UK sovereign territory – which holds 94% of the plant and animal species occurring on UK territory and nowhere else in the world, and all but 0 or 1 (depending on the current status of the Scottish crossbill) such bird species. As UKOTCF has drawn attention to for over 20 years, the UKOTs fall also into the gap between international funding (for which, as UK territory, they are not eligible) and UK's domestic budget (from which they are excluded – unlike the territories of other states and their budgets).

For someone working for UKOTs for some years, it is sad (but necessary) to be reminded repeatedly of the long-term and continuing negative impacts of human activity in so many of the islands. These range from extinctions of endemic bird species in Ascension (2), Cayman (1), Henderson in the Pitcairn group (4), St Helena (9) and Tristan da Cunha (2), through more invasive problems, habitat destruction due to inappropriate and badly planned built development, fisheries by-catch, climate-change with sea-level rise, ice-loss, and increasingly severe and frequent hurricanes. This continues, for example by the recent relaxation of constraints on building in the Cyprus Sovereign Base Areas (caught by the book), and the new devastation of Caribbean coral-reefs due to Stony Coral Tissue Loss Disease (missed by the book).

There are, however, stirring reminders of successes despite the lack of resources – and depending on huge voluntary effort involving both NGOs and UKOT governmental conservation bodies (often with the personnel donating lots of their own time too). The rediscovery in 1951, after 400 years of presumed extinction, of the Bermuda petrel (or cahow) and its slow recovery over the last 70 years show both the dedication of local conservationists and the fact that long-term support (rather than the inadequate 2- or 3-year grants so favoured by UK Government) is needed to support such invaluable endeavours. The restoration of the seabird colonies of Ascension depended on a commitment of several years (and the good fortune that introduced mammals never reached the offshore stack where most species, including the endemic Ascension frigatebird hung on). The staggering success of the restoration of South Georgia by South Georgia Heritage Trust's Herculean effort made the update section.

A great deal remains to be done in all the UKOTs and, if this book helps raise awareness, as well as being of use to those already involved, it will be a valuable result.

This is a useful and worthwhile book. Whilst I have reservations about the missed opportunities in bringing the still diverse chapters together into one volume, the chapters themselves are generally well written and give sound accounts of the birds of those territories covered.

Mike Pienkowski

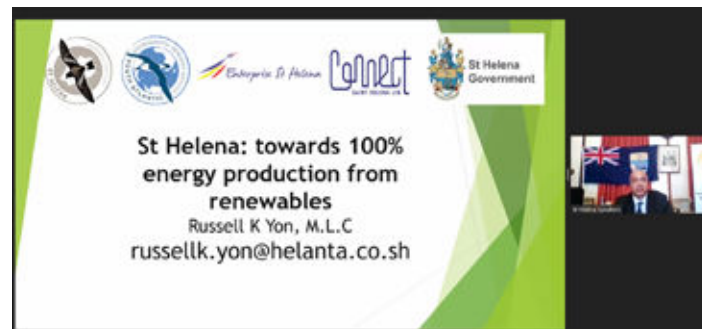
Virtual Island Summit 2020

The Virtual Island Summit is a recent, but pre-Covid-19, innovation, which seems even more practicable in the present changed world. The topics of sessions this year in September ranged widely, tending to the political. However, two sessions, attended by UKOTCF, are relevant here, this report being mainly by UKOTCF voluntary Conservation Officer and Secretary of UKOTCF Southern Ocean Working Group, Catriona Porter.

Innovation and Sustainable Development in the South Atlantic

St Helena and the Falkland Islands came together in this virtual conference session. The following provides a brief overview of, and some thoughts on, the session.

The summit was a welcomed avenue of connectivity in this post-Covid landscape, as the territories – alongside the rest of the world – continue to adapt to the pandemic's ongoing impacts. Lasting almost exactly one hour and a half, the Friday session had a panel comprised of island-based politicians and experts, and attracted an impressive global attendance: with participants from Trinidad, the Netherlands, Jersey, Spain, the USA, Norfolk Island, Egypt, Nepal, Anguilla and more. UKOTCF was very pleased to see this level of interest in the session between the territories; the interactive chat feature, which enabled viewers from around the world to ask the panel questions and network with each other, also held a high level of appeal and remained busy throughout. Participants were encouraged to use this feature to introduce themselves and relay where they are viewing from; responses indicated people were from various professional fields, and several school groups were also tuning in to watch and listen.



Falklands (followed by some Falkland-specific questions), and secondly St Helena (followed by some mixed-territory questions). Thus, in total, there were six different topics, ranging from digital development to knowledge economies, and one common talking point discussed by both territories – renewable energy.

Some interesting plans were presented, perhaps most impressively St Helena's goal of reaching 100% energy production by renewables. Plans here included details of renewable energy storage, alongside wind and solar farms, which will be implemented with the endemic Saint Helena 'wirebird' plover *Charadrius sanctaehelenae* in mind to ensure the necessary EIAs and other environmental safeguards take place. In May 2020 a power purchase agreement was signed between Connect Saint Helena and Patch UK to provide wind-turbine, solar power and battery storage capacity to St Helena – two phases aimed at reaching the renewable goal set to take place during 2021. This is certainly an ambitious project and, if successful, will make St Helena a leading example of sustainable energy.

The Falklands also discussed environmental pathways towards sustainability, evidencing its importance due to the territory's finite resources. Currently, six wind turbines located a short distance from Stanley supply up to 40% of the annual electricity in the capital. Although not 100% reliable, sometimes due to an over-abundance of wind, harnessing this natural resource has had a tremendous impact on reducing the Falkland Islands' global footprint. Waste-management and the importance of community buy-in were also discussed, as well as using EIAs to safeguard major developments – such as with the ongoing work removing land-mines planted by Argentina during the invasion of 1982 [since completed], where vulnerable sand-dune and vegetation sites were highlighted. EIAs here have identified a need for seasonality and sensitive management, to ensure the dunes remain stable and erosion risk to vegetated areas is reduced via appropriate cover vegetation.



Like many scientific conferences, the session was constructed so the speakers could provide updates and insights into independent efforts and future plans, rather than facilitate a joint discussion about shared issues focused on evaluating best practices or solutions. Some issues were raised, however, that are common to many of the UKOTs and other remote areas: such as internet access, the need for community participation in recycling schemes and the benefits of developing knowledge-based economies. The session moderator, Tara Pelembe (Deputy Director for Innovation at SAERI), highlighted that many of the issues associated with

Ascension Island Sustainability (AIMS) Project



Illustrations are screen-grabs from the conference

The session took a broader layman approach as speakers combined technical information and development plans with wider overviews of their institutions and background information on the islands. SAERI took time to familiarise viewing participants with the organisation's history: detailing their extensive reach, objectives, and examples of past projects – such as coastal habitat mapping in South Georgia, and using satellite tags to discover how predators utilised marine space which helped to inform Ascension's marine protected area design. St Helena warmly gave viewers a feel for what life is like on the island; briefly detailing the geography and challenges of importing goods, the resourcefulness of the locals (who go by 'Saints'), and their exports of honey, fish and coffee and – of which there are small, but world-renowned, quantities: a single 250g bag of St Helena Tipped Bourbon Coffee Beans costs a mighty £170 from the East India Company!

But on to the science – overall, due to the varied topics presented, the session adopted a broad-brush approach, and was probably most useful for layman audiences or those who wanted a shallow overview of current / future innovation and sustainability focussed projects. Three panellists presented individual topics in each half of the session, which was structured to hear first from the

remote islands are, in fact, similarly felt by remote areas globally – not necessarily only islands. She voiced a comment placed in the chat from a participant from Indonesia, who related to the issue of digital access. The participant confirmed it can be a problem for them, before continuing to ask whether the Falklands or St Helena had implemented any solutions to such. This followed on from the topic of growing a digital economy on St Helena, which had underlined the resilience of the digital economy and explained how many workplaces, teaching institutions and businesses had simply switched from the physical world to online during the Covid-19 pandemic. Plans for a trans-Atlantic submarine fibre-optic cable to be delivered to St Helena within 2 years were also revealed.

Other topics included developing a knowledge economy on the Falklands and the importance of education on St Helena. Plans of diversifying the economy away from traditional areas of agriculture, fisheries and tourism to a knowledge-based economy hope to do so by attracting scientists and researchers to the territory; which will also then increase research opportunities, leading to more conservation work and biodiversity protection. St Helena presented detailed information on the current schooling system and challenges faced, particularly regarding staffing, and drew attention to apprenticeship opportunities available for children (academic and vocational), as well as government sponsored tertiary education off-island programmes.

Overall, the session packed in several areas of discussion and used a broad-brush approach to provide a brief overview of the topics presented - as well as inadvertently raising a few issues felt across other UKOTs. This approach worked well with a layman global audience, and provided a good publicity opportunity for the work being done by both territories in areas of innovation and sustainability.

Brexit and Beyond: Global and Local Challenges in the UK Overseas Territories

This 1.5-hour discussion revisited areas that have been the subject of many exchanges over the last 4 years of confusion and indecision in the UK administration.

Participants included elected representatives and officials from UKOTs, persons from other islands and other interested persons. The UKOT personnel, while exploring ways of overcoming the forthcoming challenges, retained criticism of the UK Government’s apparently unthinking and uninformed approach to the issue. Cayman’s representative to UK & Europe, André Ebanks, summarised this by commenting that just because the parents [UK and EU] were divorcing, the children [Overseas Entities of UK and other EU nations] were being forced to do so as well. This reflected the useful collaborations between UKOTs



Some participants in the Brexit and Beyond discussion: (from the top) André Ebanks (Cayman Islands Government Representative in UK and to the EU); Benito Wheatley (British Virgin Islands Government special representative); and Councillor Teslyn Barkman MLA (Falkland Islands)

and the overseas entities of France, Netherlands, Denmark, Spain and Portugal (which UKOTCF had helped facilitate in earlier decades).

Conservation funding was discussed, and concern shared about the latest unconsulted changes to UK Government’s Darwin Initiative funding, which, for some of the UKOTs most in need, confounds conservation funding by adding a requirement for development objectives in applications.

Blue Whales return to South Georgia

Blue whales were abundant off South Georgia before early 20th century industrial whaling between 1904 and 1971 killed 42,698 of them there. Most of these were killed before the mid-1930s.

The species all but vanished from the region – dedicated whale surveys from ships off South Georgia resulted in only a single blue whale sighting between 1998 and 2018 – but more recent surveys suggest blue whales are making a comeback.

A 2020 survey in February resulted in 58 blue whale sightings, and numerous acoustic detections. Susannah Calderan of the Scottish Association for Marine Science (SAMS), Oban said: “We don’t quite know why it has taken the blue whales so long to come back. It may be that so many of them were killed at South Georgia that there was a loss of cultural memory in the population that the area was a foraging ground, and that it is only now being rediscovered.” The team’s analysis was funded by South Georgia Heritage Trust and Friends of South Georgia Island, and surveys involved British Antarctic Survey.



A blue whale near South Georgia. Photo: Russell Leaper

Endangered Species Research: <https://www.int-res.com/abstracts/esr/v43/p359-373/> Additional info: BAS, BBC, The Guardian

UKOTCF needs your help

UKOTCF's only focus is on helping achieve effective conservation, environmental education and sustainability in UK Overseas Territories and Crown Dependencies. This has a great advantage in that we always follow the priorities of the territories for conservation, rather than having to decide whether their priorities or those from other places, such as domestic Britain, need our attention.

It also has disadvantages, too. Organisations with wider involvement have income streams relating to those activities, potentially giving some buffering at times when funding for UKOT conservation is limited. As well as focussing on particular projects requested by territories, much of UKOTCF's work is coordinating across territories and pushing for their interests with UK Government. Indeed, the UK Government funds for UKOT conservation (Environment Fund for Overseas Territories, Overseas Territories Environment Programme, and the Darwin Initiative's earmarking some funding for UKOTs) all resulted in part from UKOTCF working with UK Government and Parliament. The same applies in relation to European Union institutions in the setting up of BEST, following years of lobbying by UKOTCF and its equivalent French and Netherlands equivalent umbrella bodies for their territories. All this coordinating work is not amenable to fund-raising, as most funders like to focus on local issues and particular projects.

We know our work is valued. For example, two comments we received from UKOTs recently were: "Thanks so very much for keeping us all informed about what's happening across the territories" and "Great meeting... it shows the value of UKOTCF and its WCWG to bring folk together to tackle issues."

This increased current difficulty in raising funds for non-profit organisations providing wide support for others was brought home to us early this year. We were shocked when *Arkive* closed down due to lack of funding. This made available still and moving images of wildlife provided by photographers, and was much used by many organisations, including IUCN's Red-List (which now lacks images). This loss of funding was despite the high profile of *Arkive* and its support by names such as Sir David Attenborough.

UKOTCF tries to keep its costs very low. Personnel work from home, absorbing office costs (thanks to understanding spouses!). Council members and advisers are unpaid. The Chairman works full-time for UKOTCF but is unpaid for this core work, and his wife donates almost as much. Currently, four others routinely donate large amounts of time to UKOTCF core roles, and many others donate time to projects. In addition, our small paid personnel donate extra unpaid time.

However, some things still need paying for. This was well recognised by UK Government officials in the early part of this millennium, when they recognised that UKOTCF provided support for UKOT conservation that UK Government might be expected to provide (and is done by some other states with overseas territories) but which it could not and still cannot, despite some increase by its agencies in work in the UKOTs.

However, at the time of the financial crisis, in 2009, UK Government's average annual funding support for UKOT conservation paid via UKOTCF fell by 76%, and never recovered. Although it is said that this financial crisis is now over, this funding has not been restored – and, in fact fell further, so that the decline

in UK Government support via UKOTCF for UKOT conservation has now declined by 100%: zero in current years.

Of course, UKOTCF has looked, and continues to look, for other sources of funding – but there are limited opportunities in respect of funding for conservation in UKOTs and CDs. We are grateful for a very generous annual donation from a Council member which helped hugely in four recent years before that had to end.

How you can help

Clearly, if you have links with funding institutions, an introduction would be welcome! Please contact Catherine Wensink (cwensink@ukotcf.org) or Mike Pienkowski (m@pienkowski.org). However, even if you do not, there are several ways in which you could help:

Friends of the UK Overseas Territories

Friends was initiated some 20 years ago, at the request of individuals who wished to contribute to UKOTCF's work. If you would like to join, there is a form on the back of this issue of *Forum News* – but most people will find it easier to do this online at <https://www.ukotcf.org.uk/become-a-friend-of-the-ukots/>. The minimum annual contribution remained unchanged at £15 for some 20 years, but larger contributions are welcome, and existing Friends may like to consider an increase. Please note that, if you are a UK tax-payer, UKOTCF can increase the value of your contribution by 25% by reclaiming the tax you have already paid as Gift Aid; the forms include an option for this. There is also a version for corporate supporters.

Other donations

Other donations are probably most easily made via our website (<https://www.ukotcf.org.uk/donate/>) or contact Catherine (see above).

Donate while you shop - at no cost to yourself

UKOTCF is a charity registered with [easypfundraising.com](https://www.easypfundraising.com). This means that, if you buy from a wide range of traders, a small contribution (at no cost to you) is made to UKOTCF. All you need to do is to register UKOTCF as your chosen charity at [easypfundraising.com/ukotcf](https://www.easypfundraising.com/ukotcf). Then, when you are shopping, start at [easypfundraising.com](https://www.easypfundraising.com) and select your trader through that site, rather than going directly to the trader's site. There are various settings that you can adjust as to whether or not you want to receive emails from [easypfundraising.com](https://www.easypfundraising.com)

Amazon is no longer in that scheme, but has its own, *Amazon Smile*. On your first visit to smile.amazon.co.uk you need to select UKOTCF to receive donations from eligible purchases. Then, when Amazon recognises you, it will offer to transfer you to Amazon Smile when you enter their site. The same choices and prices are on Amazon Smile.



Reddish egret in its characteristic hunting poses hunts fish in Red Salina, central Grand Turk, March 2020.

Photos: Dr Mike Pienkowski

Friends of the UK Overseas Territories

You can also subscribe online at <https://www.ukotcf.org.uk/become-a-friend-of-the-ukots/>

Four good reasons to become a Friend:

1. You know how valuable and vulnerable are the environmental treasures held in the UK Overseas Territories.
2. You understand that the only way to guarantee their protection is to build local institutions and create environmental awareness in the countries where they are found.
3. You care about what is happening in the UK Overseas Territories and want to be kept up to date by regular copies of *Forum News* and the Forum's *Annual Report*.
4. You understand that the UK Overseas Territories are part of Britain, and therefore are not eligible for most international grant sources - but neither are they eligible for most domestic British ones, so help with fundraising is essential.

EITHER: I wish to become a Friend of the UK Overseas Territories at the annual support level: £20 £50 £100 £.....

OR: I wish my company to be a Corporate Friend of the UK Overseas Territories at annual level: £200 £500 £1,000 £.....

Name of individual Friend or contact person for Corporate Friend:

Company name of Corporate Friend (if relevant) :

Address:

Telephone: Fax: Email:

Please complete one of options 1 to 4 below. UK taxpayers are requested to complete section 5 also; this will allow UKOTCF to benefit from the tax you have paid, at no additional cost to you.

1. **UK cheque:** I enclose my UK cheque made out to UK Overseas Territories Conservation Forum for this amount.

2. **Standing Order form:** To: The Manager, Bank Name: Branch Sort-code

Bank address: Bank postcode:

Please pay: UK Overseas Territories Conservation Forum at NatWest Bank, 9 Bank Court, Hemel Hempstead HP1 1FB Sort-code: 60-10-33 Account number 48226858 the sum of £..... now and a similar sum thereafter on this date annually.

My account number: Name

Address: Postcode:

Signature: Date:

3. **Standing Order instructions sent:** I confirm that I have sent instructions directly to my bank for a standing order as per option 2 above.

4. **Credit or charge card:** Please charge the amount indicated above to my card now *and thereafter on this date annually. [Delete the words after * if you wish to make only a single payment] (If you are based in another country, your card company will handle the exchange and include the equivalent in your own currency in your regular statement.)

American Express, Delta, JCB, MasterCard, Solo, Switch/Maestro, Visa Expiry date: / (month/year)

Card number: Security number (3 digits, or 4 for Amex)

If used: Start date: / If used: Issue number: Signature: Date:

5. **UK taxpayers** are requested to sign the following section to allow UKOTCF to recover tax paid:

I want this charity to treat all donations that I make from the date of this declaration until I notify you otherwise as Gift Aid donations.

Signature: Date:

**Send to UKOTCF, Icknield Court, Back Street, Wendover, Bucks. HP22 6EB, UK;
if using options 3 or 4, you can fax to +44 2080 207217**

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