

FORUM NEWS 32

JULY 2008

• www.ukotcf.org

Making the Right Connections: a conference on conservation in UK Overseas Territories, Crown Dependencies and other small island communities

Grand Cayman, 30th May to 5th June 2009

The conference (announced in *Forum News 31*) is being organized by UKOTCF in consultation with the Cayman Islands Department of the Environment and the National Trust for the Cayman Islands. It is supported also by the Overseas Territories Environment Programme of the UK Foreign and Commonwealth Office and Department for International Development. It will be the fifth such conference following the first held in London in 1999, the second in Gibraltar in 2000, the third in Bermuda in March 2003 and the fourth in Jersey in October 2006. The proceedings of the Gibraltar, Bermuda and Jersey conferences can be seen on the Forum's web-site (www.ukotcf.org).

The conference will provide a forum for government environmental bodies and NGOs to discuss key conservation issues, to highlight success stories, exchange ideas, and to forge partnerships. The overall aim is to draw on similarities and differences in experience across the territories, to provide insights into common challenges, leaving participants better equipped to address local needs.

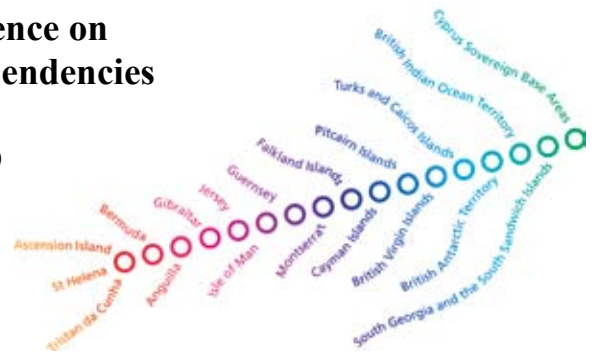
The main topics have been determined after wide consultations amongst conservationists working in the Overseas Territories. Main sessions are likely to be:

- Opening and introduction to Cayman experience
 - including field visits in Grand Cayman
- Maintaining momentum - setting the scene and reporting progress since the Jersey conference
 - Scene setting/objectives for the Cayman conference



Grand Cayman's endemic subspecies of parrot, on the Mastic Trail, one of the field-visit options during the conference.

Photo: Dr Mike Pienkowski



- Progress on Environment Charter implementation
- Environmental education
- Invasive species
- Raising our profile - engaging policy-makers and the public
- Joined-up thinking – institutional arrangements for environmental management
 - Joined-up government
 - Broader joined-up approaches
- Enhancing capacity - how on earth are we going to cope with the workload?
- Spatial planning, protected areas and international standards – assets or liabilities?
- Climate change – impacts, adaptation and mitigation
- Regional Working Group sessions
 - Wider Caribbean WG
 - Southern Oceans WG
 - Europe Territories WG
- Compilation and presentation of conference conclusions

This outline programme is provisional and may change up to the last minute. It will be amplified and updated periodically on the web-site (www.ukotcf.org). Participants should plan to arrive in Grand Cayman on Saturday 30th May 2009 and leave on Friday 5th June. (It may be possible for those wishing to stay longer to book rooms via the conference at the conference rate. If you wish to do so, please contact UKOTCF as soon as possible.)

Further details and a booking form are available on the UKOTCF web-site (www.ukotcf.org). It is recommended that bookings be made as early as possible, to secure places. You will be advised as soon as possible whether a place is available. In order to secure your booking, a non-returnable deposit is required at the time of booking. The balance will be due by 31st January 2009. Soon after, rooms have to be released to the hotel and so may not remain available. Even if rooms are available later, the concessionary price may not be available. Because the conference will be liable for costs after this time, refunds cannot be made. Participants are advised to take out appropriate travel insurance. Accommodation,



Endemic Grand Cayman Blue Iguana at the Botanic Gardens, one of the field-visit options during the conference.

Photo: Dr Mike Pienkowski

breakfast, lunch and meetings will be at the conference hotel on Seven Mile Beach, although a few events and the conference dinner are expected to be held elsewhere.

Conference format

In response to feedback from participants in the previous conference, the duration of this conference will be one day longer (although shorter than the conference plus workshops of 2006), allowing for more priority topics to be addressed at reasonable length. In order to develop an integrated programme, speakers will be invited. However, all participants are invited to offer posters (see below). In response to feedback from participants in previous conferences, it is envisaged that all or nearly all sessions will be in plenary, rather than using parallel sessions.

Posters: Poster presentations may be offered by any participant, including those invited to make a presentation in some other form. The latter may find a poster useful to present information which does not fit readily into their spoken presentation slot. The subjects of posters are not restricted to the topics of sessions. There are constraints – which we are trying to overcome – on display board space available. Therefore, the conference organisers cannot guarantee to accept all posters offered, but will do their best to do so. (Making the requests early will maximise the chances of this.) A summary of any form of presentation to be given (including posters), should be sent by 31 January 2009 as an email attachment to ukotconf2009@gmail.com so that it can be included in the conference pack. The summary may be from a paragraph to about a page in length.

Proceedings: We plan to publish the proceedings on the Forum's web-site. Details of how to submit texts and illustrations are included in the announcement on the web-site.

Costs: The present costs for the conference (arriving Saturday 30th May and leaving on Friday 5th June) are £790 per person in a room shared with one other or £1190 per person for a single occupancy room. These rates (which include some support from the conference budget) cover accommodation, transfers from and to airport, transfers to other conference venues, field visits, tea/coffee breaks, breakfasts, lunches, dinner on two nights, and conference costs. Participants should budget to meet separately the costs of drinks and any additional costs such as telephone calls, gratuities and laundry, as well as dinners on other days. There are a range of dining options at or near the hotel. All participants will be responsible for paying the hotel for any extras such as meals not included in the conference cost, drinks, laundry, telephone calls and gratuities.

Changes at UKOTCF

Some readers will be aware of a number of challenges that the Forum has had to deal with in recent months. Amongst other matters, these have included a string of problems at our internet service provider, making it difficult at times for people to access our web-site (www.ukotcf.org). Member organisations will be aware also of the current review of the Forum's operations. At the same time, we needed to maintain core and key project activities, which provide UKOTCF's main vehicles for supporting conservation work in UK Overseas Territories and Crown Dependencies. Attempting to balance the handling of these has been very demanding, especially at a period when, without a Co-ordinator (see *Forum News* 31: 15), UKOTCF core work had to be handled entirely, rather than the usual mainly, by voluntary personnel.

We are pleased to report that major progress has been made towards not just a restored, but a better, level of operation. One sign is the appearance of this issue of *Forum News*. This is much later than we would have liked – but is even bigger than the previous issue, itself then the largest ever. We plan a further issue in 2008, to get back on to schedule. As for the web-site, interim solutions have been put in place to manage the key problems, and a plan developed for long-term solutions. We will be implementing the latter in a phased manner over coming months. This will involve some short-term, temporary loss of particular functions, but this will be on a planned basis, rather than the sudden horrors imposed on us without warning by the ISP in the past. We expect that some of the long-term improvements will have been implemented by the time that you read this.

The key change – and one which was badly needed because of the workload on already over-stretched voluntary personnel – is Council's filling of two paid roles. A most welcome grant from the Esmée Fairbairn Foundation has allowed some restructuring and increase in personnel capacity. Council is delighted to announce that Dr Oliver Cheesman (oliver@dipsacus.org) and Catherine Quick (cquick@ukotcf.org) have agreed to take on the roles of Development Director and Co-ordinator, respectively. This has already enabled some reallocation of tasks, and there will be further changes as we catch up with existing commitments and develop new ideas. For the present, the initial point of contact for enquiries to UKOTCF will be Oliver.

Oliver is well known to many Forum participants and has undertaken many roles for UKOTCF on a voluntary basis in the past (and especially in recent months). He holds a BSc in Biology from Southampton University and a PhD in insect ecology from Cambridge University. Oliver worked for nearly ten years for CAB International, on a range of research, training, information management and capacity building projects that took him to exotic locations such as Borneo, Guyana, Trinidad and The Bahamas. His work included studies of invasive species, biodiversity assessment and management, the environmental impacts of sugar production, and invertebrate conservation.

Catherine holds a BSc in Zoology from Queen Mary College University of London and an MSc in Conservation Biology from Manchester Metropolitan University. She has studied marine invertebrates, herbivores in Kenya and the management of protected areas in Tanzania. She has worked for the Environment Agency in UK and for the World Conservation Union IUCN Office for Europe in Brussels, where she was involved in the organisation of the important conference in Paris in 2006 on *Biodiversity in European Development Cooperation* – which involved a strong element on Overseas Countries and Territories. Catherine's interests include diving, travelling, walking and volunteering in wetland restoration at a local nature reserve.

New UKOTCF Council Members

We welcome two new Council members elected at the 2007 AGM.

Joseph Smith Abbott

Joseph Smith Abbott joined the British Virgin Islands National Parks Trust in August 1996 as the Deputy Director/ Science Coordinator. He was promoted to the directorship in December 1999 and continues to act in this capacity. Mr Smith Abbott is responsible for the overall management and planning of the territorial protected area system. He is a member of the IUCN Iguana Specialist Group and a recent graduate of the Chartered Management Institute. He has collaborated with various UK and US institutions in the identification and implementation of research needs and management approaches in order to improve protected area management in the Territory.



William Edgar Foyle (Bill) Samuel

Bill Samuel was born and brought up in Surrey, educated at Downsland Preparatory School and Harrow School and qualified as a Chartered Accountant in 1964. He has lived and worked in Copenhagen, Nairobi, Bahrain, Farnham and the Turks & Caicos Islands, initially as an accountant but then as an entrepreneur in tourism development and an investment banker.

More recently he has been a consultant in tourism and financial services with assignments including Strategic Reviews in the Turks and Caicos Islands and Anguilla, commercial consultancy for the Government of St Helena and restructuring the Turks and Caicos Tourist Board. He was UK Representative of the Turks & Caicos Islands Government from 1996 to 2004.

He joined the board of his family's company, Foyles Bookshop, in December 1999, where he helped plan and oversee a major renovation programme. He is also a Director and Secretary of the Foyle family's property company Noved Investment Company.

He is divorced with three adult children, an adult foster son and eight grandchildren. His hobbies include sailing, scuba diving, skiing and photography. He is an active supporter of Amnesty International and cares deeply for human rights. He is a Director of The Book Trade Benevolent Society and a Trustee of the Ilois Support Trust and Education Action International. He lives in London and Cornwall.



Bill in the meeting room at Foyle's, with a picture of his father and uncle, previous directors there - in an age when the dress-code was different. Photo: Iain Orr

Major damage to the environment in Turks & Caicos

Forum News 31 (p. 18) reported both challenges to the environment in TCI and indications that they were to be addressed, highlighted by TCI Government (TCIG) declaring 2007 the Year of the Environment. TCIG hosted an international conference *Fostering a Green Culture* in November 2007, including a speech by US former Vice-President and Nobel Laureate, Al Gore. At that conference, TCI's Premier, Hon Dr Mike Misick, recognised the importance of preserving nature and the environment, and the economic benefits of this to the country, because quality of the tourism experience is more important than quantity. Accordingly, he announced that there would have to be a halt to new developments. He announced also that the historic and environmentally important island of Salt Cay would become the World's first green island.

It is surprising, therefore, that we have been made aware of more disturbing messages from TCI residents over recent months than ever before from any UKOT. In fact, there are so many that we cannot include them as articles, but have instead summarised them in a table. It is difficult to reconcile the contents with the Premier's statement, either in general terms or in relation to specifics. The concept of making Salt Cay an environmental example does not seem compatible with: ignoring the views of the local community; turning the historical and internationally biologically important salt-pans and creeks into a marina; turning the land area, natural vegetation and existing community (and historically important) buildings into a resort and golf-course; cutting a channel through the reef; and physically splitting the community in two. Nor do the construction elsewhere in TCI of deep channels and an artificial island within a national park, adjacent to vulnerable nature reserves and over important fish nurseries, seem compatible with a philosophy based on preservation of nature and the environment.

The approach, and the lack of public consultation and environmental impact assessments, seems at variance with the TCI Environment Charter. TCIG had earlier promoted the implementation of the Charter strongly, as an example to other UKOTs, being the first to

adopt a strategy developed in a collaborative way amongst many stakeholders. There also seem to be conflicts with TCIG's tourism slogan "Beautiful by Nature" – indeed, some tourism operators seem concerned by the current untrammelled construction work.

Concerns are not limited to residents of TCI. *National Geographic* has placed TCI on a watch-list of countries whose ecosystems are being endangered by unsustainable tourism. Providenciales came 119th out of 121 destinations, lower than all its neighbours, and was rated as "in serious trouble". Comments included: "immediate eco-action is needed" to restore the damage; "rampant development" with "little attention to ecosystems"; "once a raw, romantic coastline, now a strip of mega-hotels on an increasingly crowded beach"; "some native islanders fear that development is at the expense of the Islands' identity and culture"; "the silver thatch palm exists only here and the Bahamas but the six-foot trees are the first things to go when bulldozers move in." Local residents feel unable to stop the devastation of their islands, and members of a current inquiry by a Committee of the UK House of Commons expressed concern at the number of complaints received from TCI residents regarding problems in local governance.



Stilt Sandpipers, on migration between arctic Canada and South America, at the internationally important salt-pans at Salt Cay, on which they depend to feed to fuel their flights.

Some of the most important natural areas in TCI, their protected status and current issues.

Notes: Statutory Protected Areas in TCI under the National Parks Ordinance include Sanctuaries, Nature Reserves (NRs), National Parks (NPs) and Areas of Historic Interest (AHIs). Land can be protected additionally or alternatively under the National Trust Ordinance by vesting it in the Turks & Caicos National Trust (TCNT). Other abbreviations in the Table below include TCIG (Turks & Caicos Islands Government); DECR (TCIG's Department of Environment & Coastal Resources); Ramsar Site (designated as a Wetland of International Importance under the Ramsar Convention); Proposed Ramsar Site (qualifying for this status and recommended for it by a review of UK Overseas Territories commissioned by UK Government and, for TCI, involving DECR personnel); IBA (Important Bird Area under BirdLife International's world-wide classification); EIA (Environmental Impact Assessment); NGO (Non-Governmental Organisation).

| Site | Status | Issues |
|--|---|--|
| Salt Cay | AHI; non-statutory wild-life sanctuary declared by DECR; Proposed Ramsar Site; IBA | All Crown Land on island transferred by TCIG to developer, despite objection of local residents, who have come under pressure to sell to the developer. Largely naturally vegetated land areas and historic community buildings to be converted to a major resort. Historically important salt-pans and creeks, also internationally important for birds, to be converted to a marina. Channel to be dredged through reef and land, separating the community into two. Work to start at short notice without proper consultation or EIA. |
| Grand Turk Salinas | Proposed Ramsar Site; IBA | Value of one of the two best salt-pans for birds destroyed by use as settling bed for dredgings for cruise-liner dock, increased outflow from water desalination plant, and failure to manage water levels. All other Salinas suffering from rapid piecemeal infilling by many individuals, contrary to planning regulations and without EIAs. |
| Columbus Landfall Marine NP, Grand Turk | NP | NP area reduced to allow dredging of channel through reef and construction of cruise liner dock. |
| Little Ambergris Cay | Protected as nature reserve by 99-year lease to TCNT. | TCIG approved investigation for resort development, without the consulting the independent statutory body holding the lease. |
| East Caicos & Joe Grant Cay | Part of proposed extension to existing Ramsar Site; IBA | Various major resort developments apparently approved, but detailed information not available. |
| Conch Bar Caves NP, Middle Caicos | NP, managed by TCNT (TCIG announced that land would be transferred to TCNT); part of proposed extension to existing Ramsar Site | Large area of rare tropical dry forest ecosystem within the NP bulldozed clear by TCIG for agricultural use. Agricultural Department intervened at request of TCNT. TCIG then bulldozed more forest on the border of the NP, including threatened Caicos pine. Project abandoned after extensive clearing because land unsuitable for agriculture. Meanwhile, stone quarried from bulldozed area to complete work on North-Middle Caicos causeway, as estimates of material needed were inadequate. No consultation with land-managing body or others, nor EIAs. |
| Indian Cave, Middle Caicos | Part of proposed extension to existing Ramsar Site; IBA; (TCIG announced land transfer to TCNT) | Without consultation, part of land transferred by TCIG to a developer, whose excavations have damaged the cave. |
| Crossing Place Trail and Fish Ponds, Middle Caicos | Part of proposed extension to existing Ramsar Site; IBA; nature trails developed throughout area by TCNT with TCIG approval. | Land apparently transferred for resort development, without consultation. |
| North, Middle & East Caicos Ramsar Site | NR; Ramsar Site; IBA | Building and other proposed developments within the northern part of the NR in North Caicos, and extension of the North Caicos runway into the NR, apparently without open EIA. Construction of causeway linking North and Middle Caicos, near to the NR boundary, without apparent EIA on the effects on the NR. |
| Dick Hill Creek and Bellefield Landing Pond NR | NR | Extensive channel dredging through adjacent flats and reef, and development of major dock, partly to replace previous dock nearer to open sea, which has been transferred to marina and resort development. |
| Fort George Land & Sea NP and AHI | NP; AHI; uninhabited and undeveloped cay, previously promised by TCIG to TCNT | TCIG propose major resort, aquarium and dolphinarium. Also dredging within NP boundaries, as part of resort development on adjacent, previously uninhabited Dellis Cay. |

| Site | Status | Issues |
|--|---|--|
| Water Cay | Undeveloped cay connected to TCNT's Little Water Cay NR, and bordering the Princess Alexandra NP & NR | Approval for major resort development given without clear plan to overcome the impact on e.g. the threatened endemic iguanas in the NR. |
| Princess Alexandra Land & Sea NP and NR, Providenciales | NP; NR; part (including the NR and surrounding marine part of the NP) is a Proposed Ramsar Site | Development of major resorts to shore limit of NP. Extensive dredging within NP (and proposed Ramsar site) to change mainland shoreline and create artificial island for development, destroying coral reefs and sea-grass beds, within the NP and adjacent to the NR islands. These are important fish and shellfish nursery areas. Local press report that the decision by the government-appointed planning board to refuse permission for the development was overturned by the Premier writing directly to the developer. |
| Northwest Point Pond NR, Providenciales | NR; Proposed Ramsar Site | Proposed removal of one of two different types of pond from NR, to develop marina. |
| Frenchman's Creek & Pigeon Pond NR, Providenciales | NR; Proposed Ramsar Site | Construction of roads within NR without planning permission. Extensive subdivision within the NR and bulldozed boundaries to these plots. Further resort development proposed in NR by Life Resorts Foundation, claiming that they are directed by God and that this takes precedence over the planning laws (a statement which has caused much offence to Christians and others). As well as the Life Resorts development, there are at least three other projects which are slated to take place within the NR. A section of the area has been designated for the West Caicos launching point. Another area has been leased by TCIG for condo development. Ground was broken on 3 June 2008 for the construction of the ultra five-star development, Tanai Resort. |
| Chalk Sound NP, Providenciales | NP; Proposed Ramsar Site | Built development to the NP shore boundary without buffer or impact assessment. Construction of roads within land area of park without planning permission. |
| West Caicos Marine NP | NP; Proposed Ramsar Site | Dredging through park and construction of resort on the adjoining land. |
| Sites managed and interpreted by TCNT: North Caicos: Wades Green Plantation Providenciales: Cheshire Hall Plantation Middle Caicos: Land of Middle Caicos Conservation Centre (former Vera Hamilton Primary School building); Village Pond; Indian Cave; Conch Bar Caves; Garden Pond Field Road; Haulover Plantation Field Road; Crossing Place Trail West from Conch Bar | Once transfer is complete, nature reserves under the National Trust Ordinance; parts are NP, AHI, Proposed Ramsar Site and IBA. | On 7th November 2006, confirming decisions taken over recent years, TCIG issued a press release stating that the Minister of Natural Resources had agreed to seek Cabinet's approval that week to transfer over 500 acres of land to TCNT for the people of the Turks and Caicos Islands. The important historical and natural sites concerned are listed in the first column. The Minister noted that TCNT had managed these sites for over a decade, involving several years of scientific study of the areas in North and Middle Caicos, and had subsequently secured funding to develop and maintain nature trails, refurbish buildings and prepare interpretative and educational material. He noted that TCIG is supportive of the work of the National Trust and will continue to assist this NGO in becoming financially independent of Government and remaining a voice of the people. Cabinet Action Minute confirmed approval – but the transfers have still not taken place. |



Artificial island being created by pumping dredgings on to the sea-grass beds in the Princess Alexandra National Park, adjacent to the Nature Reserve islands (behind workings and out of view near camera position).



Brown Pelicans and Flamingos feeding on Town Salina, Grand Turk in the middle of the capital. Like other salinas, it is being in-filled, so that the birds will not be able to use it.

Postcards from Bambarra – impressions of UKOTCF volunteers

Despite all the problems, Turks & Caicos National Trust (TCNT) continue to take projects forward, some with help from UKOTCF volunteers, long-term and new. Here is the account by two of the latter, Steve & Mary Cheeseman.

Scene 1: a party in an English village, lots of conservationists; we're chatting with men with beards and trying to appear intelligent; someone mentions help needed somewhere we've never heard of....

Scene 2: 3½ months later, a man throws open the front door, runs to the bathroom and jumps into the cold shower fully clothed slapping his head with his hands; a woman briskly shuts the door and grabs the mosquito spray...

We went from a quiet English village to the island of Middle Caicos, Turks and Caicos Islands (TCI) for a month. Much of the island is a wetland of international importance under the Ramsar Convention. We are staying at TCNT's Middle Caicos Conservation Centre (MCCC), a combined visitor centre (small office, lab, public exhibition area) and base for visiting volunteer scientists and conservationists (2 bedrooms, bathroom and a kitchen/lounge). There is also a separate rainwater tank, laundry and public toilet block. The single-storey building was a primary school when the population was bigger. The centre has been opened (*Forum News* 30) and interpretative displays are in place. However, renovation and conversion had not been completed by the contractor, and local contractors are busy on big developments, so that 'volunteers' are needed to help finish it.

We met Mike and Ann Pienkowski in Scene 1, and mentioned that we had some spare time. We are a semi-retired couple – a teacher and a pilot – but we've accumulated other skills, including building renovation, computer installation and general management. Mike and Ann convinced us that we would be able to help and, in a rush of enthusiasm, we said yes. It all became clearer once we had arrived, as we started to appreciate the challenges of working on Middle Caicos, a largely unspoilt 48 sq mile island with 300 people. It has a small airstrip and a new EU-funded causeway linking it to more populated North Caicos, with shops and boat links to the heavily developed Providenciales (Provo). The single main road of crushed limestone (and potholes) [but surfaced since our visit] runs from the causeway linking the hamlets of Conch Bar, Bambarra and Lorimers. Most supplies have to come from Provo through North Caicos. The electricity supply is reasonable and Cable & Wireless (C&W) provide a phone service which works most of the time. The tenuous supply chain partly explains why it has been difficult to complete the MCCC.

We arrived in Provo at the end of September 2007, and spent a day getting provisions and discussing the project with TCNT Director (Ethlyn Gibbs-Williams) and Senior Conservation Officer (Bryan Naqqi Manco) who would oversee the project from his base on North Caicos. We then got a boat to North Caicos and a truck dropped us at MCCC. We quickly settled in and got out our list of jobs: first to get the building into a state in which volunteers could stay there and second to get the centre in a better state for the public. However a few logistic issues became apparent, some noted in our 4 postcards from Bambarra...

Week One

Dear all - a note that we are alive and prospering. However, it's tricky to install broadband and a computer network when no phones work – since Thursday (lightning strike), despite C&W saying they will be fixed in 36 hours. Nevertheless, we have got a lot of work done: for instance, rewiring the oven (sorry stove – it's all US-speak here), which was reported as 'not working' when in fact the contractor had wired the wall socket to deliver 125

volts to the oven casing! It's fixed now after some painful diagnosis. We've also had to examine the TCNT truck which is supposedly our transport – it had a head-on crash while being driven by someone unauthorised who couldn't drive. No headlights, both airbags hanging out, chassis badly cracked/corroded and one wing is crumpled. BUT these are not what we were asked to look at. Since having had the brakes fixed, the truck would not drive forward – could we fix it? The first clue was the pedal hitting the floor every time, and the second was the wheels going round, even if the brakes were pumped. The auto-shift was stuck in 'park' (to stop it without brakes?). The government engineer supposed to look after it has not been on-island for some time. This truck is going nowhere. Hence, we have no transport – which makes getting food and hardware for the jobs tricky, as it's a 40-minute drive to North Caicos for the nearest shop. We have 2 bikes put together on-site by Naqqi – who is an excellent botanist...

We have hot water, having put in pipes and wired up an external electric boiler. We had to evacuate the building when testing the flow, as the smell of bad eggs was overpowering – due to water being static in the pipe since the contractor left. We got locked out of the bedroom as all internal door handles were self-locking and the contractor left no keys – luckily the bedroom window was fitted so badly that it could be opened from the outside.

We've been to the beach twice (on the bikes), but the crowds are awful: 2 crabs on the mile-long stretch of white-sand – that's all – no other person in sight, just clear blue sea with pelicans getting lunch. We met a flamingo in the road on our first outing and there is lots of other wildlife – unfortunately including many mosquitoes and sandflies. The washing machine here does not work, as we have to install a water supply to that building; we haven't got the bits because we have no transport. When it rains (a lot on this visit), our own waterfalls appear – one from the path above (and into the building) and one from the gutter, a long run that slopes towards the middle; unfortunately the down-pipe is at the end, hence the overflow. We've redirected the river from the limestone waterfall, moving soil, sand and rocks while the rains poured down. The stone wall we're going to build should cure this problem.

Week Two

Dear all - after 2 weeks, we now have a working phone line. Our transport problems reduced Mary's Sunday dinner menu to spam (but cooked delightfully). Our Saturday evening entertainment was assembling one of the SkeeterVacs that TCNT has bought. They run on propane gas from cylinders, to attract and kill mosquitoes. The instructions revealed that the SkeeterVac has to



Residential side of the building, with its new insect screening. Part of the new wall to deflect water and mud slides is visible on the left.

be run continuously and will not have an appreciable effect for 3-4 weeks. For those of you with a scientific bent, the SkeeterVac works using a variety of lures (heat, CO₂, ultraviolet light and 1-Octen-3-ol) and attracts mosquitos over an area of about an acre. It is designed to wipe out the majority of breeding females over the long term. We have the only SkeeterVac on the island, so guess where the mossies are going for a good night out. We caught so many we had to change the sticky paper after 2 days (it's meant to last 14) and the fan jammed from the mass of dead bodies. Nevertheless, the mossies continue to flock here – unfortunately they don't all die (due to jammed fan and no vacancies on the sticky paper) so we are now facing a serious Bite & Sting relief cream shortage and have resorted to wearing long sleeved shirts, trousers and headnets for any outside work (it's hot). Nevermind - in 3 weeks it will be better here...

On Monday, using the other TCNT truck, we spent 2 hours in the hardware store. They use plastic pipe here with a mixture of glued and threaded joints; there are 3 sizes of pipe in every plumbing system, two of which are called ½-inch (but are different sizes and types of PVC) and may use 3/8-inch valves. The other pipe is called ¾-inch, but is nearly the same size as one of the ½-inch pipes...hence 2 hours. With two more field-workers to carry back (so it was the back of the truck over 40 minutes of potholes for Steve), the boys were fed up with shopping. So the grocery shop visit was curtailed, with severe consequences, as we ran out of tonic and Mary reverted to gin & orange. Thankfully, Naqqi found a case of tonic cans at another shop on Tuesday.

Today we've had a real plague of mossies. Jannay (who manages the MCCC office) got the spray truck from North to come and spray the area, with an effect for a couple of hours (we seem to recall that Darwin said something about survival of the fittest – the remaining mossies are the real hard cases). Steve plumbed in the toilet block today, only to find that the water supply to the toilets is not the same as the sinks. No one knows where it enters the building – all the pipes are in concrete, so we have some more detective work to do in full mossie gear (the area round the toilet block is one of the up and coming housing areas for young mossies). We now have a washing machine with both hot and cold inlets connected to the cold supply as there is no hot in the toilet block – apparently the typical configuration here, resulting in a cold wash as the machines don't heat the water. The trial worked except that the waste water went into the waste outlet and appeared all over the floor of the adjacent ladies toilet, which helped clean the floor but is probably not a good long-term solution.

It's 7:30 and pitch black now and the spray truck has made another surprise visit. We now can't go outside as there seem to be thousands of upset mossies outside the door, but it's hotter inside here than outside. There is a plan to fit air-conditioning – preferably while we are here – but administrative difficulties keep delaying this. We have to make a break for next door to send this. If we survive the trip back you will get another missive in a few days.

PS: It was spam again tonight as the snapper has not yet defrosted; we're also planning to catch a rat overnight attracted by some lovely processed cheese – will keep you posted!

Week Three

Dear all - yes, we are still here. It's hot, the mossies are out, but the sea is still blue and the beach is still empty (except for pelicans and crabs). We've been out for the night to the centre of social life on Middle Caicos - Shanique's airport cafe. The men with dreadlocks watching *The Hip-hop Festival 2007 from Atlanta* in the bar were kind enough to translate Steve's English to the local accent for the barmaid, when Mary wanted a long gin & tonic. The pre-ordered meals were OK and everyone was friendly. On way back,

we saw 2 night herons (and mossies, of course).

Last week ended badly. We got to Provo by truck, then boat (3 hours), but the planned meeting ended as 5 minutes in a corridor, as another crisis had occurred. We got some shopping, but Amos, the boat owner, didn't turn up from North because the waves were too big. We hitched a lift with the road maintenance contractors – but, as the boat owner's daughter's birthday cake was on board and the boat had 2 engines, we felt safe.

The truck we occasionally use now is the better of the two (at least it goes). It has: brake warning lights on (both ABS and BRAKE); one permanently deflating tyre and no spare; vague steering; and a passenger door that doesn't close. Other than that, it's OK. On the way to the hardware store for more plumbing bits, we had to avoid several old people on the side of the road. Apparently, this is a scheme to provide income for the old folks – they sign on at the beginning of the week, then weed the roadside every morning by sitting on buckets, upturned pots etc with a machete chatting to friends for a couple of hours – then they get paid.

Another exciting trip was to the North Caicos dump, and we're trying the Middle Caicos one tomorrow, to get rid of what the dogs have left of our rubbish. Jannay didn't understand when we asked her when the dump was open...it's not quite the same as UK.

We met the man who had been paid to do the original plumbing for the toilet block (it's a complete mess). Steve asked him about it, but he said 'I'm busy today' – so he was shown round the SkeeterVac instead, where he was honoured with his very own mossie fan club; he left shortly thereafter. Steve spent the whole day making custom pipe fittings to connect into this wrecked plumbing system.

Got a quote for sand today to build a wall. Seems rather high. Internet still doesn't work, despite being told last Friday that it was all connected – the fault has now been elevated to 'superior status' since it's been unresolved for so long (and we phone C&W twice a day). We visited Conch Bar Caves in the week with Naqqi; this was definitely worth it: many bats, interesting limestone formations and pond-dipping to examine cave shrimps.

The SkeeterVac schedule calls for them to be checked every 2 days. Ours has been so successful that we have to unjam it every day – in full mossie gear: long trousers, socks, shirt, ski-jacket outer with cuffs over gloves with hood up and tight, with headnet. A prior attempt without the jacket led to a swarm of mossies finding their way inside the headnet, which resulted in Scene 2 above.

We've had some aircon men around to quote for the job – they could do it next week but something tells us this won't happen.

PS: the rat got the cheese without being caught, so we're sticking to spam.

Week Four

Dear All - we still have no internet (C&W never do get it working [until after our visit when it pops into life, our set-up being correct, but a problem at the C&W end]) but we do manage to set up a wired and wireless network in the building. After a few phone calls, we find we can get sand for free. We use a recycled case from the dump as a container, drive to the designated area, then load up. This should do about half the wall. Then back to base to dig more stone, with the help of Judnel, a TCNT field-worker. Our stone source is the swamp area – home to mossies with attitude. We use the truck to carry stone to where we need it as the wheelbarrow has a broken wheel. But it gets worse...next morning we get a call from Naqqi asking for help – the front wheel of the truck is falling off and a rescue is needed. Steve bikes to find the truck after a couple of miles. The wheel bearing has gone – not just broken, but



Before and after the work on the second visit. On the left, Judnel and Mary clear drainage, level the ground (as much as possible), glean gravel and set the level frame for the new decking. In both pictures, the accommodation part of the building is on the left and the display area on the right. In the right picture, the new veranda is nearly complete on the new decking. Looking through it, the infamous laundry and public washroom building can be seen a little way away.

it's completely disappeared; the only thing keeping the wheel on is the split pin through the wheel nut. Steve does what he can with a pair of pliers. A hire 'van' is organised, and TCNT staff member Edison is fetched as he has tools and access to some spare bits. Wall building is curtailed somewhat, as sand cannot be fetched except in a dustbin in the van. Nevertheless, after a couple of days hard work, a stone wall is completed with a small storm drain which should do the job.

We finish the toilet block with bright blue paint but one set of taps short. (With none on North, this is left.) We've managed to get one computer working on the network and the aquarium is ready to fill. The residence is useable now, albeit in need of some more beds and some aircon. We get Amos' boat to Provo where we debrief with the TCNT Director, and then home courtesy of BA.

Was it worth it? We worked hard and achieved as much as we could. We found out a lot about the problems of working at the end of a long supply chain, particularly when the local management is stretched to the limit. 'Interesting' is probably an apt description

of our experiences – both in terms of the technical aspects of the tasks and the way the local system deals with events.

Would we do it again? Definitely – we've just been back again. We put screening around the residential part of the building and built a large roofed decking area to provide a visitors' sitting area. This made use of a large surplus of timber that TCNT had bought for another project which had to be abandoned due to a governmental change of mind. This time it was dry, without mosquitoes to plague us. The internet is working and the aircon contract was completed while we were there, but not without the inevitable last minute problems – essential parts were not delivered, this coming to light when the contractors turned up, and a direct result of local procurement practices. Luckily, we were able to fund the immediate purchase of enough bits from North to get the major part of the work completed. However, the transport situation has not improved much: the truck now has 4 wheels (useful) but the engine cuts out randomly. There are still no bunk beds for visitors and enough problems remain outstanding for at least another visit...

UK Overseas Territories Conservation Forum: activities and achievements

Forum News 31 (p.19) included a brief summary of UKOTCF's status, structure and strategy. Oliver Cheesman now reflects on some of the Forum's activities and achievements.

The publication in 1987 of *Fragments of Paradise*, an assessment of nature conservation in what were then known as the British Dependent Territories, led directly to the formation of what is now the UK Overseas Territories Conservation Forum. Initially a more or less informal grouping of UK-based bodies with a common purpose to promote conservation in the UKOTs, its early work included building the Forum network, establishing contacts across the Territories, and helping to establish and nurture local NGO bodies. An analysis of conservation priorities in each Territory was undertaken with funding from the first round of the Darwin Initiative, and the resulting *Conservation Review* was published in 1996. In the same year, UKOTCF became formally constituted as a charitable company, and reviewed its internal arrangements and relations with member organisations, as requests for support from the Territories increased and the Forum's programme of activities expanded. Recent years have seen, amongst other things, increasing involvement of the Crown Dependencies, which share

many characteristics and challenges with the UKOTs. The Forum is currently conducting another internal review, via a consultation with its member organisations.

Resourcing Conservation

It was apparent from an early stage that one of the biggest constraints on conservation in the UKOTs was a lack of available funding sources. There was (and remains) a tendency for UK-focused donors to see the UK Overseas Territories as 'foreign', despite their status as British sovereign territory, and for international donors to see them (more correctly) as parts of the UK, whose conservation funding needs should be met by the British Government. UKOTCF has worked to lever funding for conservation work in the UKOTs from UK Government sources where possible. It worked with the Foreign and Commonwealth Office (FCO) to create the Environmental Fund for Overseas Territories (EFOT), and subsequently with FCO and the Department for International Development (DFID) to create the Overseas Territories Environment Programme (OTEP). These mechanisms have been a great success, although the projects they support are necessarily small given the limited total budget

available, supporting a wide range of activities across the UKOTs. The Forum has also encouraged the British Government to direct funds to the UKOTs under the Darwin Initiative, resulting in projects in Ascension, Tristan da Cunha, the Falkland Islands, the British Virgin Islands, the Turks & Caicos Islands, Anguilla, the Cayman Islands, Montserrat, St Helena and Bermuda. UKOTCF continues to press for a more appropriate scale of dedicated funding to be made available by the UK Government for conservation work in the UKOTs.

Capacity Building and Co-ordination

Funding difficulties provide one challenge to capacity building for conservation in the UKOTs, but other constraints also limit available resources, including the small size of the local population in many cases. Many of the activities outlined below have contributed to increased capacity for environmental management in the UKOTs, often in subtle and indirect ways. However, UKOTCF has long been involved directly in work to build capacity in local bodies, particularly but not exclusively NGOs, and to enhance co-ordination and partnerships between organisations and individuals with special interests in the UKOTs. It has facilitated strategic planning and institutional development for NGOs in a number of Territories – and for some government bodies also; UKOTCF was flattered to be informed by Bermuda Government colleagues that they had used the Forum's *Checklist* (published in *Ecos* in 1998) as a guide to restructuring their environment departments. UKOTCF has helped to co-ordinate input from its UK member organisations, and has assisted in the development and implementation of many specific projects, some run under its own name or jointly with member organisations, others led by Forum members or other partners. It put forward the concept which became the Environment Charters (see below), and subsequently worked with UKOT government and NGO bodies to develop strategies for their implementation in pilot UKOTs. Both NGO and government personnel from the UKOTs have remarked that the Forum has been particularly effective in encouraging previously rare cross-Territory links. For example, the Permanent Secretary for environment from one UKOT remarked that she had never met her opposite number from a neighbouring Territory until UKOTCF facilitated this; and expertise developed with the National Trust for the Cayman Islands in habitat mapping has been put to use in the Turks & Caicos Islands. It is notable also that bodies concerned with conservation in the Overseas Territories (or equivalent entities) of the Netherlands and France have drawn on the Forum's experience and expressed interest in operating in a similar way. Collaboration with such bodies is becoming more important for the Forum, as co-operation at European level between countries with geographically remote and environmentally fragile territories becomes increasingly viable and rewarding. Hence the recent development of *Bioverseas* and other initiatives.

Influencing policy

Effective conservation rarely flourishes without supportive measures at policy level. The joint responsibility between UK and UKOT governments for environmental issues in the Territories, and the range of different UK Government departments with responsibility for activities which impinge on environmental matters in the UKOTs, provide particular challenges in this respect. A major advance was made through the development of the Environment Charters, which the Forum strongly encouraged during the drafting of UK Government's 1999 White Paper *Partnership for Progress and Prosperity – Britain and the Overseas Territories*. In September 2001, Environment Charters were signed by the governments of the UK and many UKOTs. These documents lay down the principles of good environmental management required to protect biodiversity and the natural heritage of the Territory concerned, to underpin sustainable development, and to fulfil



UKOTCF's Chairman gives a presentation on the biodiversity of UKOTs, and the need for more adequate resourcing by UK Government, to the All Party Parliamentary Group on Wildlife & Conservation, in a seminar organised with IUCN, April 2008. Photo: Dr Oliver Cheesman

international obligations. The Charters then record commitments made by the UKOT in each case, and by UK Government, to support these principles. As well as encouraging the development of these important documents, UKOTCF continues to remind the UK Government of its responsibilities with respect to the UKOTs, including through representations to Parliamentary inquiries and Government consultations. Most recently, these have included submissions to the House of Commons Foreign Affairs Committee and Environmental Audit Committee.

Liaison, information review and the sharing of experience

Much of the Forum's work has centred on direct liaison with, and facilitation of contact between, the disparate bodies concerned with environmental matters in the UKOTs. Through the establishment of its own Working Groups, UKOTCF has brought together key players concerned with conservation issues, initially focused on individual Territories, and more recently through regional groupings. This evolution reflects, in part, the increasing capacity and experience in individual UKOTs, allowing for greater sharing of ideas and collective approaches to common challenges. At an early stage, the Forum also established a system for half-yearly meetings between relevant UK Government departments and members of the conservation NGO community to share information, identify key concerns, help resolve issues and develop collaborative activities. These, and less formal meetings 'behind the scenes', have helped to keep important channels of communication open. The Forum has also facilitated the participation of UKOT representatives as part of the national delegations, or as observers, at Conferences of Parties of conventions and multilateral agreements, such as the Ramsar Convention on Wetlands. UKOTCF was also instrumental, through explanations to UKOT Ministers and officials, in achieving full sign-up by UK territories to that Convention. Perhaps the highest profile, and some would say most successful, aspect of the Forum's work in bringing people together has been its organisation of a series of international conferences. *A Breath of Fresh Air* (London, 1999) was organised jointly with FCO; *Linking the Fragments of Paradise* (Gibraltar, 2000) with the Gibraltar government and NGOs; *A Sense of Direction* (Bermuda, 2003) with the Bermuda Government and NGOs; and *Biodiversity that Matters* (Jersey, 2006) with the Jersey Government and NGOs. Plans for a further conference to be held in Grand Cayman in 2009 are now in progress (see elsewhere in this issue).

In order to feed information into the networks described above, and to note achievements and draw attention to areas needing further work, UKOTCF has undertaken a number of reviews of progress being made in key areas. These have included an assessment of implementation of the Convention on Biological Diversity in the UKOTs a review of existing and potential Ramsar sites

across the Territories, and (most recently) a review of progress on implementation of the Environment Charters.

Awareness raising

As part of its work to raise awareness of conservation issues in the UKOTs, the Forum has developed a website (www.ukotcf.org) which is now one of the principal sources of information on the Territories. This includes interrogatable databases, incorporating information on key sites and topics, conservation priorities, and projects in the UKOTs, as well as other information on a wide variety of subjects. There is scope for modernising these databases - work is in progress alongside the planned addition of a set of environmental education modules. The website provides on-line access to *Forum News*, which is also widely distributed in hard copy to keep stakeholders informed of work in the UKOTs, and to other publications including conference proceedings. UKOTCF personnel also promote awareness of the UKOTs and their biodiversity at formal and informal meetings and events, including through the use of a series of display boards and publications.

The Future

UKOTCF Council is keen to build on the above activities and achievements – there is no doubt that many challenges remain. The current internal review and member organisation consultation will help to guide this process, and the outputs from this exercise will be reported in a subsequent issue of *Forum News*.

A Charter for Sark

Less than a year after the designation of the Gouliot Caves as a Ramsar site on the west coast, Sark is facing a new potential threat to its breeding colony of guillemots nearby. This colony is the largest of this seabird species in the Channel Islands.

Brecqhou Developments, owned by the twin tycoons the Barclay brothers, have applied to Sark's Development Control Committee for a helipad, 'for emergency medical evacuation', to be sited on the west coast just a few hundred yards from the nesting rocks of Les Autelets. This is in spite of the fact that there is a dedicated ambulance boat, *The Flying Christine*, and that both royal visitors and emergencies use the official landing field in the centre of the island, opposite the medical centre and adjacent to the fire and ambulance stations. Sark can be forgiven for suspecting other motives behind the application.

The island of Brecqhou itself has undergone a massive change over the 15 years since the Barclay brothers bought it. On the positive side are sewage treatment, environmental technology, horticulture and regeneration of waste land. But this is off-set by negatives: uncontrolled building on an unprecedented scale, landscape-scarring roads, the annihilation of the indigenous vegetation, a desalination plant, outdoor lighting, CCTV cameras and frequent



helicopter movements. In the past 12 months, 20% of land in Sark has been bought up by the Barclays and an international hotel and golf course are already planned.

Sark's greatest assets are its ancient landscape and its extraordinarily diverse natural beauty. Rapid development or insensitive change would mean irreversible degradation of the environment: the unspoiled cliffs and lightly farmed fields, and the biodiversity of a small (5 kms x 3 kms) island with a rural life.

Last August, La Société Sercquaise, founded in 1975 to preserve and enhance Sark's natural environment and cultural heritage, identified areas of great importance to this way of life, and formulated *The Sark Charter*. More than 550 people signed paper copies and, in January 2008, the Charter was put online via a link on the official Sark Tourism website to reach a wider public. Sark needs your help now to protect the unspoiled diversity that makes the island unique – and vulnerable – in the 21st Century. Please visit www.sark.info and sign the Charter online.

*Jo Birch, Honorary Secretary, La Société Sercquaise, Petit Moie, Sark, Channel Islands GY9 0SE. Tel: 44 1481 832788
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UK Conservative Party's Quality of Life Policy Group and the UKOTs

During 2006-7, a marine and coastal sub-group was amongst the set of teams contributing to the Conservative Party's Quality of Life Policy group, set up to recommend environment policy to the Shadow Cabinet.

Of course, the sub-group's recommendations are not official Conservative Party policy yet, and even if they were, would only currently be the positions of the main opposition party, but they are obviously useful markers to lay down should the administration change in future.

The full report, published in September 2007, runs to nearly 550 pages and can be downloaded at: <http://www.conservatives.com/pdf/blueprintforagreeneconomy.pdf>. It includes the following:

We must recognise that the UK's commitment to restoring and protecting the long-term ecological and economic health of our marine, coastal and fisheries interest extends to:

- * the important biodiversity attaching to our Overseas Territories, particularly those in the South Atlantic

The UK must:

- * Provide greater support and resources for the protection of globally threatened albatrosses and other species in its South Atlantic Overseas Territories. Action must be taken by the UK with those of its Overseas Territories that hold major breeding populations of globally threatened albatrosses and other species

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Well done, Bermuda

Two related items of good news from Bermuda. Three endangered Bahama Petrels (or Cahows), translocated to Nonsuch Island before fledging in 2005, have returned to the island and been observed entering artificial nesting burrows. This is key to their long-term survival, as the tiny islets on which this species survived for 300 years while thought to be extinct are subject to flooding in storms.

The second item concerns adjacent and larger Cooper's Island, which has also now been declared a National Park, providing a valuable larger area for much sensitive wildlife. Some participants in the UKOTCF-organised conference in Bermuda in 2003 will recall the visit to that site as one of the site-management studies. It is gratifying that the conference's recommendation in this regard has come to pass. We wish Bermuda colleagues every success in the future management challenges.

The Sandwatch Project

The Sandwatch Project provides a framework for youth to work with their teachers and local communities to evaluate critically the problems facing their beach environments and to develop sustainable approaches to address these issues. Through Sandwatch, schools and communities adopt a local beach, and measure regularly how it changes over time, e.g. beach size, water quality, plants and animals. They use the information collected to conduct small projects to address particular issues.

Originally established in the Caribbean in 1999 as an initiative of UNESCO, the programme has steadily expanded and is now active in schools in over 35 countries worldwide, mostly small tropical islands (including in the Pacific and Indian Oceans) and the coastal regions of Africa. Currently, there are three UKOTs participating in the project, the British Virgin Islands, the Turks & Caicos Islands and Montserrat.

The project's goal is to have educators and students adopt a local beach and visit it regularly to conduct and record a series of simple tests and measurements such as beach width, current speed and direction, water temperature, and a survey of beach usage and debris. Simple chemical testing of the sea water for oxygen content, pH level, and organic contamination can also be conducted using inexpensive and easy-to-use, off-the-shelf testing kits.

With students and teachers recording their results to note any change over months and even years, they can see for themselves if their local beach environment is healthy and stable or under environmental stress, and hopefully identify what these stressors are. They then work with their community to implement a specific project that will enhance their beach and/or address a specific problem.

Many Sandwatch schools organize beach clean-ups routinely, plant mangroves or sand-dune stabilizing plants to protect against coastal erosion, produce informational pamphlets for visiting tourists on ways to care for the beach and the adjacent coral reef, or monitor marine turtle nesting sites...and a variety of other activities.

One of the main strengths of the Sandwatch programme is its ability



BVI Sandwatch team test sea-water for contamination.



BVI Sandwatch team measure current speed with dye.

to foster a real sense of community within its members. Project participants world wide often have their data and photographs posted on-line within 24 hours of it being emailed to us. Their data is posted on their own "national homepages" within the overall Sandwatch Website (www.sandwatch.org). These home-pages are also theirs to customize as they see fit, and often contain additional information on their local school, community, culture and related environmental projects that they may be involved in.

In addition to the website, there is a regular newsletter called *The Sandwatcher*, to which all participants are actively encouraged to submit articles and photos detailing their efforts on behalf of the project. Spanish and French editions of each issue are also produced. The November 2007 issue focuses on climate change and contains articles and photos from 22 Sandwatch teams worldwide. It can be read online at www.sandwatch.ca/schedule.htm. The Sandwatch manual is also available for download from the website and is also available in French and Spanish editions.

In addition, we will shortly be announcing a new contest for Sandwatch Teams worldwide to compete in. Sandwatchers will be asked to create short (3-5 minute) 'YouTube' type videos of how climate change is affecting their local beaches and communities, and show what steps they are taking to adapt to the situation. Submitted entries will be shown on YouTube and other websites, and public voting will decide part of the final scores. Prizes will be awarded in several age categories.

As Sandwatch is specifically designed for students, educators and communities in small islands, we encourage schools on the UK Overseas Territories and Crown Dependencies to contact us about joining the programme. We look forward to answering any questions or queries you may have.

Paul Diamond and Gillian Cambers



Students of Robinson O'Neal School, Virgin Gorda, measure air temperature and current direction for Sandwatch.



Summaries of progress or completion of a range of OTEP projects already active

The Overseas Territories Environment Programme (OTEP) is a joint programme of the Department for International Development (DFID) and the Foreign and Commonwealth Office (FCO) to support implementation of the Environment Charters and environmental management more generally in all the UK's Overseas Territories. The UK Overseas Territories Conservation Forum continues to provide aspects of communication management for OTEP. This is the eighth of a series of supplements to *Forum News* as part of this initiative. Although *Forum News* itself is under the editorial control of the Forum, the content of this supplement is as agreed by the Forum with FCO and DFID.

The results of the fifth round of bidding will appear in the next issue (and can be seen in the OTEP section of www.ukotcf.org). This issue of the OTEP supplement to *Forum News* concentrates on a number of reports from projects funded in earlier rounds. OTEP welcomes jointly funded projects, so that some articles could equally occur in the OTEP supplement or the main section of *Forum News*, as indeed in this issue.

ACRAMAM - Anguilla's Resources (ANG004 and ANG006)

Anguilla's prime assets are its coastline and nearshore waters as well as its wetland habitats, providing essential landscapes that migratory wildlife, locals and tourists enjoy. This is also the basis for the fisheries industry and internationally important and often endangered biodiversity. Management of these resources depends both on good baseline information and methods for integrating data from field, maps and satellite images for use by government decision makers.

The Anguilla Coastal Resource Assessment, Monitoring and Management Project or ACRAMAM was a major project for Anguilla: GB£133,000 (approx EC\$ 650,000) provided by OTEP over 2½ years to the Government of Anguilla (who themselves are contributing EC\$100,000, plus staff time and other necessary resources). Its aim was to help Anguilla meet commitments to the Environment Charter and the St Georges Declaration, and hence implement some of the objectives of the National Environmental Management Strategy. ACRAMAM was launched officially at a ceremony in June 2005, following completion of the first of three phases. The first phase remapped the coastal resources; the coral reef, seagrass and underwater terrain of the nearshore waters using high-resolution satellite imagery and extensive field survey. The second phase provided training for resource assessment and monitoring protocols, and for information management. Additionally, field monitoring guidelines for nearshore coastal resource management were developed as well as information handling protocols for inter-departmental cooperation. The third phase was installed in mid 2006, and is a geographical information system (GIS) called AXACRIS (Anguilla Coastal Resource Information System), which can organise and analyse the data collected in the field or elsewhere and assist government stakeholders make timely and more accurate decisions. Not only have databases for a range of departments been designed for, amongst others, coral reef monitoring, sand mining, seagrass monitoring and fish

assessment, but other existing datasets such as the Land Registry, Development Applications and Water Quality have been integrated. A system for cataloguing all data will allow Anguilla to archive and use its valuable geographical data more effectively, and a suite of GIS analytical tools allow government staff to map biodiversity, environment, fisheries, planning and land issues. Finally, a state-of-the-art intranet mapping tool has been established and will allow people across government to view key environmental data. A third phase of the project improved monitoring methods for marine resource management.

The project made use of a multidisciplinary team of consultants. UK-based consultancy firm Atkins steered the coastal resource mapping element. Andrew Finlay of Atkins headed up this team with support from marine biologist Oliver Taylor and world-renowned coral expert Dr John Bythell from University of Newcastle, UK. Dr Floyd Homer from Trinidad trained staff in monitoring techniques. Dr Edsel Daniel (Vanderbilt University) and Mr Alan Mills (UK) steered stakeholders through the design, development and installation of the GIS, including extensive training. It is hoped that AXACRIS can embrace other agencies' needs for geographical information so it can be applied to vulnerability and disaster management issues, utilities, education and social issues, as well as integrating statistics and census data. In essence, ACRAMAM has provided a prototype for the development of a National GIS for Anguilla. Since its implementation, the South Atlantic Overseas Territories, Ascension and St Helena, have benefited from similar programmes.

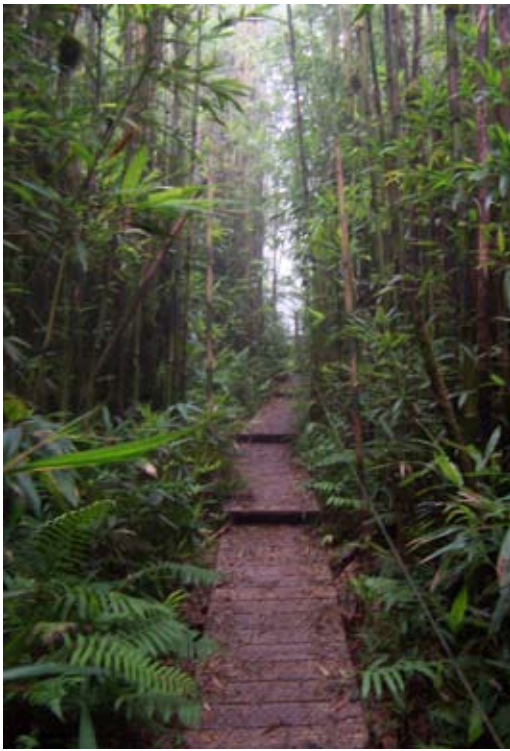
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Improving Access to Green Mountain (ASC301)

In April 2006, the Ascension Island Government Conservation Department was awarded OTEP funding to improve access to Green Mountain. This project sought to expand the accomplishments of a previous OTEP project, which founded Green Mountain National Park. Basic activities for the project included removal of invasive vegetation and the upgrading of paths. This project was a success and, at its completion, 7 major paths of historical and cultural importance had been established.

A series of recommended walks was developed in association with the paths, in addition to a letterbox and stamp system. Each path has a letterbox and stamp where visitors can sign their names into a book and place a hand stamp in a correlated brochure, thereby documenting their visit.

One can gain an appreciation for Ascension simply by walking on the paths and learning about their history. Rupert's Path is the oldest on the mountain and serves as a link to Garden Cottage, which was built in 1817. This path features a cave adorned with maiden-hair fern. Another path that begins at Garden Cottage is Cronk's Path. This path was built by Farm Superintendent Hedley Cronk as an alternative passage to North East Cottage. In 1921, the "Ba-



A forest of bamboo surrounds the boardwalk leading up the Dew Pond Path.

nana Bridge” was added to Cronk’s to cross a ravine and was later replaced with a bridge lowered in by a RAF helicopter in 1982. Like Cronk’s, Elliot’s Pass begins at Garden Cottage but circles Green Mountain at 2400 feet. It was built by the Royal Marines in 1840 and includes several tunnels and lookout caves. One can circumnavigate the top of the mountain by walking Elliot’s Pass, and continuing to the other side of the mountain via Bishop’s Path

Bishop’s Path has a variety of vegetation types, including ginger, a grassy hillside and a small forested area near a former piggery. Both Elliot’s and Bishop’s Paths afford lovely views of the island.

Like Bishop’s, Breakneck Valley has interesting vegetation. Walkers can travel through a cluster of Norfolk pines, which were originally planted to provide material for ships’ masts. The Breakneck Valley Path was created to give access to a water collection and distribution area (complete with a windmill pump) in the 1830’s. Scout’s Path was built during the 1970s and is home to several of Ascension’s native land crabs, which can be seen scuttling over the path and around their burrows. Higher on the mountain, one of



Field worker Carl Richards prepares to mark the freshly cleared Elliot’s Pass.

the most popular paths leads to the Dew Pond. This path begins at the Old Marine Barracks and stretches to the pinnacle of the mountain, traversing through ginger, grassy fields and a bamboo forest. Three species of endemic plants can be seen on the path before it culminates at a pond filled with water lilies, which was constructed in 1865.

Visitors and locals enjoy walking along the paths. A review of tourism statistics has shown that Green Mountain and the paths are very popular. The majority of visitors to Ascension include a trip to Green Mountain on their itinerary. Whilst on the mountain, visitors make good use of the paths and thoroughly take pleasure in the walks. Local residents on the island also benefit from the paths

and spend considerable time walking on the Mountain, enjoying the cool, green respite it provides. The Ascension Island Government Conservation Department is extremely grateful for the support provided by OTEP, as are the visitors and residents who enjoy Green Mountain National Park and its paths.

Susanna Musick, AIG Conservation Officer, Ascension Island Conservation, Conservation/Sea Fisheries, Ascension Island Government, Tel /Fax +247 6359, Email: susanna.musick@ascension.gov.ac

From a seemingly hopeless situation to outstanding success: the “Buy Back Bermuda” campaign to salvage a nature reserve at Somerset Long Bay, Bermuda (BDA201)

The human population density of Bermuda – already the highest of any isolated oceanic island in the world – is currently undergoing a new surge of growth accompanied by rampant development, on account of the island’s extraordinary success as a tax haven for international business and the re-insurance market. The resulting pressure on the remaining open spaces is very great.

In 2004, a three-acre privately developed nature reserve at Long Bay Beach on Somerset Island was proposed for building development. The beach had originally bordered an extensive area of mangroves and freshwater marshes, but an earlier Government policy of combining mosquito control with garbage disposal had resulted in all of the marshland being filled in by the late 1960s. In the 1970s, Government acquired the central section of Long Bay as a park for public beach use, and the Bermuda Audubon Society, which became incorporated in 1960 to try and save marshlands, acquired the western section for restoration as a nature reserve. The filled areas were re-excavated to create a large pond with small mangrove islets for waterfowl nesting. The reserve soon supported the highest diversity of nesting water-birds of any pond in the island! A neighbouring landowner to the east of the Government park decided to emulate it on his own property. Two decades after his restoration, however, the land was up for sale. The Audubon Society was keen to buy but had never tackled a project larger than \$250,000 before. When another potential buyer offered \$1.4 million in cash to fill in the pond and develop the area for beach-front condominiums the situation seemed beyond hope.

The Society decided to approach the Bermuda National Trust for support, and formed the “Buy Back Bermuda” campaign. The response by the community was immediate and generous. Within eighteen months, well ahead of our three-year plan, we not only attained our goal but also overshot it with enough extra funds to provide an endowment for long-term maintenance and seed money for another project. The Bermuda Government was likewise inspired to contribute \$300,000 towards the purchase price of the reserve because, lying adjacent to the public beach park, it



*The reserve pond, bird blind and interpretive sign at Buy Back Bermuda’s new nature reserve at Somerset Long Bay
Photo: Andrew Dobson*



effectively doubled the area accessible to the public from the park itself. As an added bonus, they also covered the cost of a necessary security fence.

Meanwhile, the Buy Back committee submitted an application to the Planning Department to enhance the reserve by installing the perimeter fence, extending the pond and creating an interpretive nature trail and observation hide. Then, in the hope of being able to take this work forward in tandem with the fund-raising effort for purchase, we applied also to the Overseas Territories Environment Programme for a \$50,000 grant. Our application was successful and the work was carried out between 2005 and 2007, using three different contractors and numerous volunteers, including school children from the neighbourhood schools. Included within our enhancement plan has been a thorough culling out of aggressive invasive plant species and the planting in of a new woodland using primarily the native and endemic trees and shrubs that characterised pre-colonial Bermuda. The reserve was opened by Bermuda's Deputy Premier, the Hon. Paula Cox, on Earth Day, 22 April 2007.

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The Saltus Island Project (BDA401)

The Bermuda National Trust's goal is to protect Saltus Island as a nature reserve and undeveloped open space forming part of the natural landscape of this part of Hamilton Harbour, Bermuda. This school and NGO project began in March of 2002, following a discussion with the Bermuda National Trust. The aim of the project is to manage the woodland on Saltus Island, (named for the school founder Samuel Saltus) and maintain the 3.2 acres as a nature reserve.

The project is offered to Senior 9 students (age 13), groups of whom visit on average twice per month. All students have at least two opportunities to visit during the academic year. Students are transported to Saltus Island, in Soncy Bay, by the Marine Police, who kindly provide their services. Students new to the project are first given a tour of the island, to enable them to identify the species of vegetation which are 'invasive' as well as those which are endemic, other natives, and non-invasive introductions. The main invasive species on Saltus Island are the 'Walking Casuarina' and the Mexican (Brazil) Pepper, which threaten to take over the island, as they have done on many of the islands in Hamilton Harbour.

Initially, students spent the first year of the project helping to develop paths around the island. Over subsequent years, students armed with only loppers and bow-saws have started to clear areas of invasive species, so that endemic and other native plants can be put in place.

The project is ongoing and has a secondary aim to educate a generation of local students. It is our hope that these students will



Local school children help with the clearing of invasive species on Saltus Island.



form a new generation who can make informed decisions about changes to the local habitat of a highly developed island on which natural landscapes are continually dwindling.

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Bermuda Environmental Valuation: Tools and Capacity-Building for Integration in Policy (BDA402)

Increasing development and lack of enforcement for environmental infractions place intense pressure on Bermuda's natural resources. This project seeks to address the lack of environmental consideration in current policy and decision-making, by providing a means of recognizing the value of the range of ecosystem services provided by Bermuda's environment. Given the vast range of impacts caused by human development on both the terrestrial and marine environment, identification of the policy questions to be addressed and prioritisation of environmental services were first considered. This was evaluated during a 3-day workshop attended by various government department officials and representative members of several local NGOs. The project was formulated further during a training workshop held in the Cayman Islands and led by a JNCC economist and overseas consultants (van Beukering Consultants). It was decided that a first environmental economic valuation in Bermuda would focus on the Coral Reefs surrounding the island. Determining the total economic value (TEV) of Bermuda's Coral Reefs will provide the basis for establishing damage compensation fees following such events as ship groundings, as well as a means to integrate environmental considerations in Cost Benefit Analysis of proposed developments.

Coral Reefs were selected as a priority ecosystem, despite the long history of protection surrounding them. Conservative measures have been taken since 1966; nevertheless, according to a 2004 report by the World Resources Institute, Bermuda's reefs are ranked in the "high risk" category. This is probably attributed to the Island's high population density within 20 km of the coral reefs, as well as the volume of shipping traffic and potential pollution threats from these vessels. In addition, there is a lack of formal procedure during "planning" or "developing" in the marine environment, and environmental impact assessments are not mandatory and are only recommended for larger developments. Due to the lack of policy regarding developments in the marine system, and the absence of a mechanism for integrating environmental values, decisions are tourism- or business-driven with little consideration for the marine environment.

The project is of immediate interest due to the increasing ship traffic and renewed use of an existing channel on the outer rim of the lagoon, referred to as the North Channel. This passage is rarely used, and has remained for this reason a pristine coral reef. Its proposed use for larger ships involves widening of the channels, as well as cutting through sections of the reef. The alternative proposal is to modify the well travelled South Channel, which has been exposed routinely to sedimentation – to the extent that coral species have adapted and composition has altered. This alternative proposal attempts to restrict sedimentation effects to one already impacted passage, rather than



Sedimentation plume following the passage of a mega cruise ship in Bermuda's North Channel. Photo: Thad Murdoch

expand the negative impacts associated with ship transport to a pristine area. A TEV for the reefs would allow for an Extended Cost Benefit Analysis between the uses of the two channels, taking into consideration environmental as well as developmental costs.

To date, the project is progressing as expected. A comprehensive research plan has been developed; the project is overseen by a newly formed Steering Committee. Small working groups have been identified providing the necessary data. Primary and secondary stakeholders have been engaged. A final report is expected to be drafted in December 2008. Thereafter, capacity-building to ensure the long-term use of environmental economic valuation in Bermuda will be established through the promotion of integrating the TEV in policy and decision-making, and through the development of an Environmental Economic Module developed for Bermuda College students.

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Conducting a census of seabirds at Barton Point Important Bird Area (IBA), Diego Garcia, British Indian Ocean Territory (BIO301 and BIO401)

The Royal Naval Birdwatching Society (RNBWS) mounted two expeditions to Diego Garcia, British Indian Ocean Territory, in May 2005 (BIO301) and November 2007 (BIO401), sponsored by RNBWS and OTEP. The aim of the two expeditions was to assess the breeding population of sea birds within Barton Point Important Bird Area (IBA) using robust and repeatable census techniques.

Barton Point IBA constitutes the north-eastern arm of the horse-shoe-shaped atoll of Diego Garcia (see aerial photograph) and three associated islets. This previously inhabited part of the atoll was left to nature in the early 1960s and made out-of-bounds to personnel serving on Diego Garcia in the early 1970s. Possibly as a result of this lack of disturbance, seabirds have re-colonised this part of Diego Garcia after being absent for the better part of a century, and the area was given IBA status due to its breeding seabirds in 2004.

By extrapolating data from 116 10m x 30m quadrats, it has been calculated that, in May 2005, there were a total of 4370 breeding pairs of Red-footed Booby *Sula sula*, and, in November 2007, from 105 similar sized quadrats, a total of 203 breeding pairs. On both expeditions, nest-building, egg-incubation, small helpless chicks, large independent chicks and recently fledged juveniles were found. These results indicate that, in the Chagos, Red-footed Boobies breed throughout the calendar year, with a peak in productivity between January and July. This has implications when calculating breeding populations in the Chagos of this species, based upon counts from one visit (repeated annually in the same month). It is possible that previous estimates of the breeding populations for this species from throughout the Chagos have been underes-



An adult Red-footed Booby on the nest
Photo: Chief Petty Officer (Met) Chris Patrick



Barton Point Important Bird Area, a bird's eye view looking south. The Red-footed Booby colony extends along both shores past the limits of the photograph. Photograph by Cathy Heinz available at <http://www.zianet.com/tedmorris/dg>

timated. The May 2005 Red-footed Booby breeding population at Barton Point exceeds the qualifying criteria of 3000 breeding pairs of this species required for Important Bird Area status.

Brown Noddy *Anous stolidus* and Common White Tern *Gygis alba*, were also shown to breed throughout the year. From the expedition results and the limited historical breeding records from the Chagos of Brown Noddy, it is not possible to specify the exact breeding period for this species. It is probable that it has a sub-annual breeding strategy and this also has implications when assessing breeding numbers from repeat counts in specific months.

The lack of breeding activity in November 2007 by any of the Sternidae terns that nest synchronously in the Barton Point IBA (Little *Sterna albifrons*, Crested *S. bergii*, Roseate *S. dougallii* and Black-naped *S. sumatrana* Terns) suggests that January to July is the breeding period for the majority of seabirds in the Chagos.

The two expeditions found 14 new species of bird for the Chagos. These new species were: Gull-billed Tern *Sterna nilotica*; Saunders's Tern *Sterna saundersi*; White-cheeked Tern *Sterna repressa*; Yellow Wagtail *Motacilla flava* (all first recorded May 2005); Black-crowned Night-heron *Nycticorax nycticorax*; Indian Pond-heron *Ardeola grayii*; Common Moorhen *Gallinula chloropus*; Common Snipe *Gallinago gallinago*; Pectoral Sandpiper *Calidris melanotos*; Ruff *Philomachus pugnax*; Parasitic Jaeger (Arctic Skua) *Stercorarius parasiticus*; White-throated Needletail *Hirundapus caudacutus*; Common Swift *Apus apus* and Fork-tailed Swift *Apus pacificus*.

The two expeditions found also several other species that had been recorded fewer than five times previously in the Chagos. Some of these species had not been seen since the early 1970s. The recording, and in most cases photographing, of: Garganey *Anas querquedula*; Glossy Ibis *Plegadis falcinellus*; Great Egret *Casmerodius albus*; Little Egret *Egretta garzetta*; Common Ringed Plover *Charadrius hiaticula*; Kentish Plover *Charadrius alexandrinus*; Eurasian Curlew *Numenius arquata*; Redshank *Tringa tetanus*; Marsh Sandpiper *Tringa stagnatilis*; Terek Sandpiper *Xenus cinereus*; Grey-tailed Tattler *Heteroscelus brevipes* and Oriental Pratincole *Glareolum maldivarum*, greatly assists in building up the ornithological picture of this under-watched area.

Other taxa were also recorded and these revealed a new species of dragonfly for the Chagos, as well as valuable data on populations of reptiles, amphibians and introduced mammals.

In summary, the two RNBWS ex-



peditions have produced a wealth of data that can and will contribute to the conservation of birds in the Chagos and provide historical documentation of other taxa. For a minimal cost, and with limited disturbance to the HQ BIOT staff, the contribution of the findings by the two RNBWS trips has been very good value for money.

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Creation of several sets of maps of zones, covering all conservation, protection and different use zones in British Indian Ocean Territory (BIO403*)

*Although originally an OTEP proposal, this project was actually supported from another UK Government fund.

The Chagos Conservation Management Plan (CCMP) is the primary overview of conservation management in BIOT. BIOT Administration adopted it in 2003, when it was set before Parliament. These map sets are designed to make easier the understanding and scope of the variety of legally established zones which have developed over the years.

Map Set 1: No Take Zones. One of the CCMP's three cornerstones is that one third of BIOT should be protected from all extractive activities. It has been empirically shown that this is the most

effective form of overall conservation. It involves minimum active management – a necessity in BIOT – and permitting licences sustainable extraction (mainly fishing) from the remainder. The fishing may possibly be at higher levels than would be the case otherwise, because of adults which overspill from the zones into fished areas. The 2003 CCMP designated provisional zones, based on available data. Following fieldwork, data from about 20 scientists has been used to help refine the locations of these zones

In addition, three other map sets were produced, which specify all other permitted and prohibited activities, for visitors to northern atolls and residents of Diego Garcia.

This include:

Map Set 2: Outline of areas where yachts may anchor – 'sacrificial areas' where no further account need be taken of coral survival in future

Map Set 3: Outline of areas which define all existing Strict Nature Reserves on all uninhabited islands, for which access to all is strictly prohibited, save with special permission.

Map Set 4: A definitive map of the boundaries of all zones of the inhabited atoll of Diego Garcia, including all classes of protected areas, mixed use areas, and special areas such as the Ramsar site.

All maps are on a GIS, which uses Landsat and Ikonos images to provide the base maps. On to all can be superimposed a variety of additional matters of conservation concern, such as erosion, which is increasing in these low-lying islands.

The maps are equally for the benefit of those who patrol and those who enforce. This project strengthened the Chagos Conservation Management Plan, started its effective implementation, and provides greater and easier manipulation of several governance procedures when required, such as when changes to anchoring and management zones are deemed to be desirable given revision of BIOT legislation. One example of this already has been to slightly expand the Ramsar area of Diego Garcia to include a particularly unusual, adjacent foraging area for Hawksbill turtles.

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Plants of the Falkland Islands – A new book from Falklands Conservation (FAL401)

This is a simple identification guide to the most common and attractive plants of the Falkland Islands. It describes 56 different plants, selected because they are particularly striking or interesting. Plants have been included from nearly all Falkland habitat types and from most of the plant families found growing in the Islands. It is intended for use by anyone – Islanders, visitors, young and old – in fact, anyone who wants to know more about the beautiful flora of the Islands.

The guide is illustrated with colour photographs throughout. It includes an identification key covering flower colour, shape, height/spread, fruit and habitat. It has a detailed description of the plant, its flowering period and where it can be found, fascinating local facts and eleven delicious traditional recipes using native ingredients.

The author, Ali Liddle, recently took a two-year sabbatical from her teaching job to work for Falklands Conservation on an environmental education project, particularly to develop locally focussed education material for the Falkland Islands' schools. This book forms part of that project, and has been produced with support from OTEP.

Plants of the Falkland Islands. Ali Liddle. 96 pages. ISBN978-0-9538371-9-9. Price £10. Available from Falklands Conservation, 1 Princes Avenue, Finchley, London N3 2DA, or from the website: www.falklandsconservation.com

Ann Brown, UK Executive Officer, Falklands Conservation, Tel/Fax: +44 2083430831, Email: ann@falklands-nature.demon.co.uk



The Chagos Archipelago, with banks (on which islands sit) shaded and deep water unshaded. The proposed No take Zones of the Chagos Archipelago are outlined. They encompass rich reefs, as well as all the islands with identified rich bird populations, which already are Strict Nature Reserves (SNR). Three miles from each of a) Colvocoresses Reef, b) Blenheim Reef, c) Pitt Bank, d) the block linking the SNRs of Peros Banhos and Nelson Island (to include Victory Bank), e) the block surrounding all the western SNRs of the Great Chagos Bank, plus Egmont. These are all encompassed within a 12 mile boundary of these SNRs.



Economic valuation of Centre Hills (MNT402)

The ongoing volcanic eruption from July 1995 to present has led to the destruction of over 60% of the forest cover on Montserrat. The Centre Hills remains the largest intact forested area. They are of global biodiversity importance, supporting the critically endangered Montserrat oriole and galliwasp lizard, which are found nowhere else on Earth. The Centre Hills also provide essential environmental goods and services. They are the main water catchment area on the island, a major tourist attraction, and give protection from soil erosion, landslides and flooding. Since 2005, the Department of Environment, in partnership with the Montserrat Tourist Board, Montserrat National Trust, Royal Botanic Gardens Kew, Durrell Wildlife and RSPB, has implemented a Darwin project to conserve the Centre Hills. This has involved biological and socio-economic assessments to develop a participatory management plan, extensive outreach, increased local capacity for environmental management and the preparation of new (OTEP-funded) environmental legislation to enable the Centre Hills to be designated a National Park.

A socio-economic assessment began in late 2005 to define the extent of land-use, as well as knowledge and attitudes of residents toward the environment and its management. However, it became clear that a major gap existed in terms of understanding and appreciating the economic values associated with the Centre Hills. Thus, the economic valuation project was conceived.

Ecosystem services are often under-invested in and over-exploited, because there are no markets that reflect their value. Given that many stakeholders are defined by their economic interests, it is also logical that this type of data is as critical a component in environmental management as are the biological and ecological data which define the resource itself.

Stakeholder consultations in Montserrat held in July 2007 identified many and diverse values derived from the Centre Hills, including landscape beauty, recreation and tourism, soil conservation, agriculture, habitat for unique and endemic biodiversity, and a potable water source. Critical threats identified were pressures for land for physical development (e.g. for agriculture and housing) and threats to native biodiversity by invasive species, including feral animals and loose livestock. Administrative arrangements for management of private lands within the Centre Hills need to be defined and include a definition of rights, responsibilities, land use restrictions and potential compensation and incentive schemes.

Given the range of economic information needed to guide decision-making on these issues, it was decided that the most useful approach would be to estimate the total economic value of goods and services from the area in its current state. This gives a quantitative measure of how important the Centre Hills are to Montserrat in monetary terms.



Survey work carried out in the Centre Hills

It also provides a reference point with which to compare possible alternative ecological states and land uses.

From mid-November to mid-December 2007 a 'choice experiment' survey was conducted to estimate the values of services provided by the Centre Hills. In the choice experiment questionnaire, respondents were asked to choose between three alternative policy scenarios costing different



Workshop in which Montserrat's pioneering experiences in economic valuation was discussed with other UK Overseas Territories

amounts. The responses reveal the strength of people's preferences for different characteristics of the Centre Hills. A total of 342 respondents completed the questionnaire, which constitutes 10% of the adult population. The results show that Montserratians are willing to pay significant amounts to address the following ranked scenarios: 1. Control invasive species; 2. Protect native species; 3. Maintain trails in the Centre Hills; 4. Conserve forest cover.

These findings, together with other economic data on the values of the Centre Hills, will be used to inform development decision-making in Montserrat. This is taking place in a context driven by the urgent need to stimulate economic growth in Montserrat and move closer towards self-reliance. Tourism is seen as a significant employment generator, foreign exchange earner, and contributor to Gross Domestic Product (GDP) and agriculture is recognised as a small but economically and socially important sector. Development priorities are solidly focused on the development of infrastructure and housing in a very limited land space. Crucial decisions need to be made regarding how physical development proceeds, how the tourism and agricultural sectors develop, and how the natural resources of the island are conserved.

Consultations planned for the end of March 2008 will engage decision-makers and other key stakeholders in analysing the implications of the findings of the economic valuation study for issues such as the type of tourism desired, management of tourism in the Centre Hills, appropriate areas for physical development, addressing the problem of loose livestock, biodiversity conservation, and watershed management priorities.

Having determined the value of the Centre Hills, it will provide the basis for ensuring that the main users of the services being provided contribute to its maintenance by making payments that will enable the effective management of this natural resource. Private land owners in the Centre Hills may also be recognised for the valuable services provided by their property while also raising the possibility of offering some level of incentives to allow their property to continue in the use for which it is best suited. In general, assigning economic values to the Centre Hills will provide the basis for determining how this national asset will be viewed, valued, conserved and utilised by all stakeholders, in the interest of not only the current but future generations.

Montserrat is one of the first UK Overseas Territories to use economic valuation as a tool for environmental management. There is considerable interest in other Territories and small islands worldwide to learn from Montserrat's pioneering experiences with economic valuation in the Centre Hills. Montserrat has been able to share its experiences with colleagues and experts in the Caribbean through various regional projects coordinated by the Joint Nature Conservation Committee (JNCC) and funded by OTEP. For example, in 2007, Montserrat contributed to the development of an environmental economics toolkit on 'Valuing the Environment in Small Islands'. This toolkit is now



being used around the world as a manual for economic valuation in small islands.

Contributors: Sarah Sanders, RSPB; Emily McKenzie, JNCC; Luke Brander, IVM Amsterdam; Albert Daley, Development Unit Montserrat; Nicole Leotaud, CANARI Trinidad; Carole McCauley, Centre Hills Project; Stephen Mendes, Centre Hills Project

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Strengthening capacity for Species Action Planning in Montserrat (MNT402)

Montserrat is one of the most important UK Overseas Territories for biodiversity conservation, containing numerous endemic and restricted-range species. A considerable number of these species are highly threatened at a global level. The Durrell Wildlife Conservation Trust, in partnership with Montserrat's Department of the Environment (DOE), National Trust (MNT) and the UK's RSPB and Royal Botanic Gardens Kew, are seeking to address these issues by building the capacity in Montserrat to produce Species Action Plans (SAPs) – 5-year plans produced at participatory workshops that output detailed programmes of projects and activities to tackle species-specific problems.

Our first workshop in October 2007 resulted in an SAP for the Critically Endangered mountain chicken frog. The workshop was well attended by Montserratians representing various interests on the island, as well as two experts from a mountain chicken project on Dominica, the only other country in the world where this frog is found. The participants from Dominica painted a grim picture of the situation on that island. In 2002, a disease caused by chytrid fungus, affecting only frogs but highly contagious amongst all species, was found in Dominica. Over just a few years, the entire Dominica mountain chicken population has been almost exterminated and is now at a very low level. This disease could reach Montserrat at any time, carried by tiny tree frogs stowing away in fruit and vegetables, which Montserrat imports from Dominica following the loss of farmland due to the ongoing volcanic emergency. The SAP identifies this risk as one of the primary causes of concern and details a programme of preventative measures. Another serious threat that was identified at the workshop was unsustainable hunting of mountain chickens on Montserrat. Measures to regulate and monitor the future harvest of this traditional food are also developed in the SAP.

Our next SAP, in April 2008, will see DOE taking more of a lead role in the running of the workshop and production of the subsequent



Philemon 'Mapie' Murrain searches under a 'cover board' (artificial refuge) for galliwasps. Photo: Matt Morton / Durrell

plan. This SAP will focus on the Montserrat galliwasps, a large nocturnal lizard, found nowhere but in Montserrat and, even there, apparently restricted to just a few hectares of land. To gather information in support of this SAP, DOE, MNT and Durrell biologists have been conducting extensive night-time searches over the past 6 months for this very elusive species about which almost nothing is known. Sightings have been made, confirming the continued survival of this species, but it appears that it is, in fact, restricted to this tiny area – its global range – and does not occur outside of that. The galliwasps SAP will be a very challenging plan to produce.

Over the remaining lifetime of this project, three more SAPs – for the yellow-shouldered volcano bat and for two plant species found only on Montserrat, an orchid and a privet-like shrub – will be produced, again each supported by field work collaborations between Montserratian and UK project partners to provide up-to-date status information on each species.

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South Georgia Habitat Restoration Programme (SGS301)

There can be no doubt that Norway rats *Rattus norvegicus*, probably introduced in the 19th Century by sealing gangs, have had a significant detrimental impact on the spectacular wildlife of South Georgia. The species that has suffered the most is the endemic South Georgia Pipit (the only sub-Antarctic songbird), which is completely excluded on the 65% of coastline that harbours rats. Successful rat eradication on Grass Island off South Georgia in 2001 has shown that pipits will, in time, recolonise areas once the rats are removed. The other significant group to suffer from rat predation are the burrowing seabirds, which are greatly reduced in number where rats are present, with some species completely excluded. However, many offshore islands remain rat-free and are havens to these species, as is the south coast of the island, although glacier retreat means that these natural barriers may not prevent the further spread of rats for much longer.

Due to the success of the Grass Island eradication, the South Georgia Habitat Restoration project was established to assess the feasibility of an island-wide rat eradication – at 150,000 hectares, South Georgia is by far the largest island to ever be considered for a project of this kind. In order to formulate a way forward, various questions had to be answered, including finding the home-range size and distribution of the rats and vulnerability of non-target species to poisoning. In order to answer these questions, fieldwork was carried out between February and March 2007 on the island.

The fieldwork consisted of many aspects, including radio-tracking of live rats, testing of non-toxic biomarker bait to assess the risk



Elizabeth Corry uses an endoscope to search inside burrows and rock crevices for galliwasps. Photo: Philemon 'Mapie' Murrain, MNT

of non-target poisoning of birds, and visits to potential preliminary eradication sites. It was important to visit as much of the island as possible, to assess rodent levels and to ensure that fieldwork sites were as representative of the island as possible.

Subsequent analysis showed the animals to have large home-ranges, with individuals utilising multiple burrows, with a heavy bias towards low-lying coastal tussac habitat. These data allow any future effort to be targeted to key areas, and poison distribution levels to be varied – minimising the amount of poison that would be deployed in the event of an eradication.

The blank biomarker bait taken to South Georgia was spread around in easily observable areas, and monitored for any feeding by birds. During the fieldwork, bait was offered also to birds as and when they were encountered. The intention was not to perform a detailed scientific study as to non-target bait take, but to give an initial impression as to whether significant issues were encountered. Fortunately, initial observations did not indicate significant levels of bait-take by vulnerable species. A full study would be carried out in an Environmental Impact Assessment for any proposed eradication effort.

The feasibility study has now been published (see www.sgisland.org) and concluded that, whilst technically feasible, there are enormous financial and practical difficulties involved with an island-wide eradication effort. The plan identifies also conditions that need to be in place before eradication can begin (e.g. improved biosecurity, baseline studies). The South Georgia Government is working to put these conditions in place and the South Georgia Heritage Trust, an independent charity, is currently raising funds to help achieve the ideal of a rat free South Georgia.

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Protected Area Planning for the Central Peaks (STH003)

The *Protected Area Plan* for St Helena's Central Peaks has been prepared. Comments and feedback from the public are now being sought, with the expectation that the *Plan* will be finalised by the end of March 2008, prior to seeking endorsement from the Executive Council.

The Central Peaks are a special place of outstanding natural and scenic beauty, with their own unique mix of ancient and unusual plants and animals found nowhere else on earth. They are an important 'asset' for the island as a place for education, recreation and tourism. In addition, water from springs and streams with catchments within the Peaks provides a significant proportion of the overall water supply for St Helena. Expansion of the native plants in the catchment areas could provide long-term benefits to the island in relation to ground water reserves. The Peaks habitats are also under threat, principally from alien invasive species.

The *Protected Area Plan* for the Central Peaks is the result of planning workshops facilitated by Dr Rebecca Cairns-Wicks and further discussions and meetings with individuals and smaller groups to agree actions. The process has been informed by surveys of the invertebrates of the Peaks by Dr Philip & Mrs Myrtle Ashmole and Howard Mendel; the bryoflora (mosses, liverworts and hornworts) by Mr Martin Wigginton; and the vegetation of the Peaks that has been stored and analysed within a database (created by Alan Mills & Edsel Daniels).

The *Plan* establishes a framework for the management of the Central Peaks. It sets out the values and thinking behind why we should want to conserve the Central Peaks, and provides strategies for solving problems and achieving identified management objectives and actions. It is a working document to guide management, implementation and planning and it is intended that the *Plan* will be used as a major input to annual planning cycles of the St Helena Government, as well as those of non-governmental organisations and other stakeholders.

The Vision for the Central Peaks is *"for St Helena to manage and restore the native habitats and species of the peaks, valued by present and future generations for recreation, education, tourism, and water catchment."*

Enquires about the project and the *Protected Area Plan* can be directed to Rebecca Cairns-Wicks at Mount.Pleasant@cwimail.sh.

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Monitoring and Raising Public Awareness of Grouper at St Helena – Using Ascension Island as a Control (STH202)

In 2005 an OTEP project was proposed to monitor the grouper, or jack as it is locally known, at St Helena. The project had been planned for a number of years, but funding had proved to be difficult. The start of this project involved two international scientists visiting the island from 11th to 27th May 2006. Personnel from the Fisheries Section, ANRD, worked closely with them to acquire new skills.

The basis of this preliminary survey involved the collection of a number of jacks, along with underwater counts of jacks. It covered most of the leeward side of the island and rounded both corners as far as Bird Island and Merry Men Island.

The reason for collecting jacks is to determine their age and other population dynamics. Their age can be found by taking out their ear bones. All fish have ear bones (or otoliths as they are known scientifically), and this gives an indication of their age. These bones have similar markings to that of a tree – one can see growth rings in them, with each ring marking one year. There are also two other sets of ear bones in the fish, and these can tell much more, such as daily growth rates.

Ten groupers were caught every month and the extracted otoliths were sent for analysis. This was done for a year and once analysis is completed, a much clearer picture of what is happening to the groupers around St Helena will result.

Leeann Henry, Marine Assistant, Fisheries Department, Email: fishdir@anrd.gov.sh

St Helena's Millennium Forest: a symbol of small island's fight to defend fragile ecosystems (STH404)

Just 50 years after the British colonised St Helena, in a report from the Governor in Council, he complained:

'The Island in 20 years time will be utterly ruined for want of wood, for no man can say there is one tree in the Great Wood, or other wood less than 20 years old. Consequently it will die with age.'

The Great Wood was the largest expanse of forest within St Helena's 47 square miles and home to an unknown number of birds, plants and insects now extinct. The Great Wood was entirely destroyed as settlers cut down the trees for firewood, stripped bark for tanning (unnecessarily killing the trees), and allowed goats and other introduced animals to graze on the saplings.

An enormous reforestation project was started, which will inevitably need to continue for decades if most of the area previously occupied by the Great Wood is again to become an established forest. The enormity of the task is magnified by the miniscule size of St Helena and the resources available on the Island for a project of this sort.

The area designated for reforestation was named 'The Millennium Forest'. The project was launched in 2000 with tremendous energy from the Island community. Virtually every Islander paid for a tree, with many of them planting their tree themselves. During this first phase, about 3,000 trees were planted. Eight years on, much has been achieved and, of course, there is still much to do. About 25 hectares have been planted so far and the total land area designated for reforestation is now 250 hectares.

Dr Rebecca Cairns-Wicks was



heavily involved in getting the scheme launched and continues her involvement through the community group overseeing the project. Rebecca highlighted a perverse strand woven into this reforestation scheme when she commented 'What makes reforestation even more difficult is that we are doing things in reverse'. The natural process, of course, is for volcanic slopes to be colonised slowly by extremely hardy vegetation, which in turn attracts insects and lower life forms. The vegetation and insects die and rot down supplying nutrients, which over a considerable time transforms sand and volcanic dust into rich organic soil.

At the Millennium Forest, this process (which took millions of years) was completely reversed in 200 or so years. We are planting trees in heavily eroded, nutrient starved acid soil / sand. However, when the trees are established they will create a canopy to take moisture from the mists drifting across the volcanic plain. Gumwoods have evolved to take their main source of moisture through the leaves rather than the roots. An established forest will retard the rate of soil erosion, attract birds and insects and eventually return to the soil the nutrients it now lacks.

The project currently supports two forestry workers who are constantly involved with watering and feeding trees as well as planting in new areas. They have to combat problems caused by infestations, particularly of mealy bugs, and invasive growth of alien species, which can overrun saplings. The failure rate in newly planted areas can be high, and re-planting is another sizeable aspect of the workload. Currently, there are 6,000 gumwoods growing in the Millennium Forest. An estimated 55,000 further plantings are required to cover the entire area designated for forest.

A plentiful supply of cheap water is a necessity in this arid area. Fortunately, this is available. However, when the water supply temporarily fails, planting has to stop – causing the overall rate of forest expansion to slow down. Compost is another main requirement. Ideally, the forest would have its own compost facility and accept green and bio-waste by the truckload. This ideal is not achievable at present, and supplies of compost are variable both in quantity and quality.

Funding for the Millennium Forest is from three main sources. First, the UK Government's OTEP, which pays for a series of tasks to be completed by March 2009; second, St Helena's Agriculture and Natural Resources Department; and third, from people who pay for a tree to be planted or simply make a donation. These three income sources provide about £38,000 per year but an alternative source of funding to replace the largest contribution, from the UK Government, will need to be found by April 2009.

The UK Government's OTEP funding supports also a smaller reforestation scheme just below the Island's central ridge. The area is called Peak Dale and lies on the southern, windward side of 'The Peaks', overlooking the spectacularly beautiful and memorable Sandy Bay. Peak Dale is the last remaining site in St Helena where gumwoods have survived in significant numbers since before human settlement. However, in recent years, self-regeneration on this site has been unsuccessful. The cause is unknown but damage caused by rabbits, stray sheep and cows is at least part of the problem, so saplings are planted between the existing stands of mature gumwood trees and protected by tree guards to help them through the first few years.

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Valuing the environment in the UK Overseas Territories – a training workshop (XOT402)

There is growing interest in the UK Overseas Territories in using economic tools for environmental management. One of the biggest constraints to sustainable development in the Territories is the lack of quality information relating to the environmental costs



and benefits of alternative development activities.

Environmental Economics with the UK Overseas Territories in the Caribbean (EEWOC) is an



Participants at the economic valuation workshop in Grand Cayman. Photo: Emily McKenzie

initiative to enable stakeholders to address these knowledge constraints, coordinated by the Joint Nature Conservation Committee (JNCC) and jointly funded with OTEP. EEWOC develops and provides tools, training and technical support to allow UK Overseas Territories to generate, understand and apply robust information on environmental values in order to improve decision-making.

EEWOC is providing technical assistance to a number of UK Overseas Territories that are leading their own environmental valuation studies in 2007-2010. Montserrat is conducting a study to assess the economic value of benefits from the Centre Hills. Bermuda has chosen to examine the benefits provided by coral reefs. Economic valuation projects are also being considered in the Cayman Islands and the Turks and Caicos Islands. The potential for using economic tools in the Crown Dependencies are being discussed at a workshop in March 2008.

In October 2007, participants from all of the UK Overseas Territories in the Caribbean attended a regional training workshop to learn more about economic valuation from international experts and share their experiences with colleagues in the region. The workshop on Valuing the Environment in UK Overseas Territories in the Caribbean was held in Grand Cayman. It was hosted by the Department of Environment in the Cayman Islands, coordinated by JNCC and funded by OTEP. The workshop was facilitated and taught by Emily McKenzie from JNCC and Dr Pieter Van Beukering from the Institute for Environmental Studies, both environmental economists with extensive experience working in small islands.

The workshop covered the steps and techniques for conducting an environmental valuation and applying findings to policy and decision-making. There was plenty of discussion and participation during the three days, which involved games, activities and computer assignments. After each lecture, participants were given time to deliberate on how each stage of environmental valuation would be relevant to a case study in their own Territory. At the end of the workshop, Territory groups presented a proposal for an environmental valuation study that they felt would help them in their work. These presentations demonstrated that participants had learnt much from the workshop. Everyone was able to prepare a proposal for a policy-relevant, focused and robust environmental valuation study.

In 2007, a number of Territories helped to develop an environmental economics toolkit on 'Valuing the Environment in Small Islands'. This toolkit is now being used around the world as a manual for economic valuation in small islands (available at <http://www.jncc.gov.uk/page-4065>). The toolkit formed the main teaching reference for the workshop.

Full proceedings from the workshop can be downloaded at <http://www.jncc.gov.uk/page-4136>

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Identification guide to the major Caribbean reef species (XOT407)

Professor Charles Sheppard of the University of Warwick, UK, along with a dozen of the world's best Caribbean taxonomists, has



Acropora cervicornis, the Caribbean staghorn coral, now greatly depleted throughout its range. Photo: Charles Sheppard

developed a comprehensive source of identification for the main reef occupiers and builders of Caribbean reefs, namely corals, soft corals and sponges. This was a cross-territories project and the result was 'Coralpedia'.

There was a need for a more comprehensive identification source, showing the wide range of forms which many species can show, given the popularity of the Caribbean as an area for research, especially of the kind which uses countless 'amateur' divers for data-gathering. Some popular books have many errors, and are incomplete. Most of the detailed taxonomic literature is obscure and of little help to field-work. Many past and present reef surveys are being done throughout the Caribbean region. While many record several species by name, almost all leave many important reef components as e.g. Sponge 1, 2 or 3 or soft corals A, B, C... etc. Someone working in, say, the British Virgin Islands (BVI) cannot therefore assume his or her Soft Coral 6 is the same as the Cayman Island survey's Soft Coral 6. Indeed, it probably is not the same. Thus, regional comparisons become difficult.

Coralpedia contains over 1,000 photographs of these main reef groups. They can be arranged by taxa or by shape and each



The huge soft coral *Pseudopterogorgia acerosa*, common in the BVI and eastern Caribbean. Photo Charles Sheppard

one is accompanied by notes in English or Spanish. Most of the photographs were taken by Charles Sheppard or Anne Sheppard. Among the other contributing photographers and taxonomists are Professor Nancy Knowlton, Dr Judy Lang, Dr Doug Fenner, Professor Ernesto Weil, Professor Sven Zea, Professor Rolf Bak, Dr Juan Armando Sánchez and Dr Emre Turak. Spanish translations are also available, by Dr Rodolfo Rioja-Nieto, University of Warwick, UK.

So far, over 600 CDs have been requested and distributed. There is also a website which shows its arrangement (designed by Dan Neal) at <http://coralpedia.bio.warwick.ac.uk/>. This has been visited about 4000 times, and is visited 25-50 times each day.

The classification of species is an evolving process. Identification of some species sometimes differed between experts, in which case Sheppard said he found a resolution, "which may of course change again later."

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Research on Jersey Toads (Crapauds)

Four hundred years ago, Poingdestre, a Jersey historian, wrote that in Jersey "it is scarce credible what quantities wee haue of Toades, Snakes, slowe worms, rats and mice with their enemy the Stoates..." Today, the stoat is extinct, grass snakes and slow-worms are rare, and rats and mice are probably as common as they have always been. In Poingdestre's day, toads were found in every pool, spring and source of water. However, results from monitoring the population over the last twenty years showed that, although toads remained common in some areas, the overall picture was that they were becoming scarcer. In the UK, toads do not tend to breed in garden ponds, and yet in Jersey we saw that they were reported more often breeding in garden ponds than in the countryside. So, in 2005, with a grant from the Jersey Ecology Fund, John Wilkinson investigated what was happening to our toads for his PhD. The results of his three-year study have just been published, and make interesting reading. The following is a brief summary of John's (now Dr Wilkinson's) excellent study.

Breeding season

Toads in Jersey breed earlier than in the UK and the more southerly toads in France. Spawning is very variable, over an extended period and at low temperatures early in the year. Garden toads breed slightly later and their condition is less variable (between years).

Genetics

The last common ancestor of Jersey and French toads lived about 13,000 years ago (when Jersey was still part of the mainland). The present toad population is the remnant of a single, island-wide population.

Habitat Use

In order to determine habitat use, tiny radio transmitters were inserted into male toads. Female toads were not used, for fear of damaging them while spawning. After a couple of days to recover, the toads were released where they had been found and were then tracked using a radio receiver. Toads usually return to the site where they were born to breed, but this study also showed that they stayed near to their breeding sites all the time. Perhaps this is because they breed early, they do not travel long distances when it is cold, and they do not have much time to breed and grow before the ponds dry up. It explains also why they do not colonise new ponds easily.

Water Quality

It is now known that high nitrate levels are harmful to amphibians, even though high nitrate levels in pond water provides an initial growth advantage because the algae that the tadpoles feed on is abundant. It seems that pesticides and chemicals, known as endocrine disruptors, are also harmful. It is ironic that topping up of garden ponds from the domestic main increases water abstraction and, as a result, water levels in some boreholes have fallen, leaving the smaller toad populations more vulnerable to extinction.

Conclusions

Breeding biology of Jersey toads is driven by historical adaptation to small, temporary ponds. Reproductive failure in small populations can be due to water quality, desiccation, isolation and lack of females. Jersey toads are now (effectively) dependent on urban habitats for survival. Conservation of toads in Jersey depends on increasing habitat connectivity between ponds. Therefore, to restore toads to their former island-wide distribution will require

reintroductions and the creation of habitat corridors.

So what are we going to do?

We are going to encourage anyone who has a populated pond close by to create a pond of their own. Also, the creation of ponds in farming areas near to known breeding sites will be supported by the Countryside Renewal Scheme. Application forms can be obtained from the Department. Toads are protected under the wildlife law, and this means that it is against the law to move spawn. We will

consider licensing the relocation of spawn to new ponds but, because there is a risk of spreading disease, the new sites will need to be suitable.

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Conference on the Future Conservation of the British Indian Ocean Territory (Chagos Archipelago)

An expert conference organised by the Chagos Conservation Trust (CCT) at the Zoological Society of London on 15 November 2007 (in association with UKOTCF) concluded that greater efforts were needed to meet future conservation challenges facing the globally important environment of the Chagos Archipelago. The conference examined the overall situation, including coral structures, fisheries, terrestrial conservation, climate change and legal and administrative frameworks. It agreed that there should be follow-up with the Joint Nature Conservation Committee (JNCC), Government departments and non-governmental organisations.



The British Indian Ocean Territory is the UK's largest area of marine biodiversity by far. Covering over 400,000 square kilometres of the central Indian Ocean, the Chagos is one of the few near pristine tropical marine environments surviving on the planet. Apart from the military base on Diego Garcia, its tiny scattered islands are uninhabited and provide an important refuge for seabirds and a breeding ground for well over 2000 species of marine life and corals.

Professor David Bellamy's words on the subject (in his Forward to the book on the Chagos Archipelago published by CCT) were recalled by the Chairman, William Marsden: "It has been my dream that the whole Chagos Archipelago should be an International Marine Nature Reserve and Sanctuary.... The whole ecological structure is under threat. Fortunately all is not yet lost, though time is short. The Powers-that-be, the international commune of conservation and locally-focussed bodies such as the Chagos Conservation Trust can work together in an effective mix of vision and management. Maybe the Chagossians too can have a role to play. The Archipelago will even more deserve, and perhaps at last obtain, the title of World Heritage site."

Among the guest speakers at the conference were Dr Peter Bridgewater, Chair of the JNCC and previously Secretary General of the Ramsar Convention on Wetlands; Professor Michael Depledge, Member of the Royal Commission on Environmental Pollution; and Professor Callum Roberts, marine conservation biologist and oceanographer at the University of York.

The tone of the meeting was reflected in Professor Roberts' comment: "The Chagos Archipelago represents a magnificent conser-

vation opportunity that could be of lasting benefit to humanity. There can be few places on this planet that represent better value for leveraging spectacular returns. What is needed is vision and a leadership initiative by Britain to create the Chagos as an iconic, pristine area of the planet held in trust for the future of the world community."

Professor Charles Sheppard (Warwick University) posed the question: "There is no doubt at all about the global ecological importance of the Chagos as one of the world's tropical marine sites least damaged by local human impacts; but is it worth the effort of managing and conserving the area in a way that continued to prevent damaging 'local' impacts, if global impacts, notably global warming, were likely to predominate and eventually destroy the area anyway?" His answer was that scientific monitoring and studies certainly showed that a serious rise in Chagos sea temperatures was a critical fact. It was also the case that corals in the Chagos, like corals elsewhere, had been killed on a massive scale by the overheating ('bleaching') of 1998 which wiped out the coral down to around 30 metres. But what was crucial was that the science showed that the Chagos coral structures, on which the whole archipelago depended for its survival, had bounced back very well indeed in shallow water, recovering from the disaster and breeding new coral because of the favourable local environmental conditions. Sadly, this was not the case in the Maldives, Seychelles, etc where human impacts such as pollution, sewage and sediments were much greater.

There was broad agreement among participants that, whilst the UK Government and BIOT Administration had taken a number of important steps to protect globally significant Chagos ecology, more would need to be done in future to meet the challenges of loss of biodiversity, pollution, the pressures on corals and fisheries, massive recent human population increases, and climate change that affect the region of the Indian Ocean as a whole. Areas for possible future action that were identified included better integration of the Government's conservation and fisheries management policies, updated designation of protected sites, wider application of the Ramsar (Wetlands) Convention, and improvements in conditions for scientific monitoring.



While the subject of resettlement of the islands was not on the conference agenda, the relevance of possible new human settlement in uninhabited areas was raised by a number of speakers. It would have a profound impact on the unique, delicate and vulnerable environment; and the vulnerable environment was a vital factor in consideration of the prospects for sustainable human habitation. In discussion, the Chagos Conservation Trust was encouraged to engage with the Chagossians on conservation science and skill training. CCT confirmed that it was keen to be of assistance, and the Chagos Support Association also expressed appreciation for the offers of co-operation in this area from CCT.

As regards international support, Dr Bridgewater said “Ramsar covers the British Indian Ocean Territory (BIOT) and it is important to remember that Ramsar is about the wise use of all wetlands in the territory of the country and getting the management right. This means, as coral reefs are wetlands under the Convention, that the whole Chagos ecosystem should be managed wisely. Accord-

ing to the Convention, a Ramsar site should be managed to ensure no change to the ecological character of the system. Given the status of the Archipelago, and given wise management in future, should the World Heritage Convention be extended to the territory at some future time it is clear a nomination would be successful.”

The possible interest of the Pew Charitable Trusts, based in the United States, was also noted. Their Ocean Legacy project had recently commented in the context of “opportunities to protect surviving world-class marine systems” that “The Chagos Archipelago is a rare gem in an increasingly populated region whose shores and waters are already over-exploited and heavily degraded.”

A fuller account of the meeting is published in a recent edition of Chagos News, available free to Chagos Conservation Trust members. For further information please contact the CCT Secretary, Simon Hughes tel +44 20 7738 7712, or visit the CCT website, www.chagos-trust.org.

David Taylor CBE 1933-2007

David Taylor died, aged 74, in London on 8 November 2007, after a short illness. David was a good friend to the UK Overseas Territories. After retiring from top positions in two of them, he served in a voluntary role as joint, then sole, Chairman of UKOTCF’s newly formed South Atlantic Working Group from 1997 to 2002, and on UKOTCF Council 1998-2006. He was a Trustee of Falklands Conservation from 1996-2001.

David moved from business to the public service to fill the newly created post of Chief Executive of the Falkland Islands from 1983 to 1987, following the 1982 war with Argentina. In these years, he played a key role in transforming the local economy by promoting the resources of the islands, as well as bringing a straight-talking, business approach to government. He encouraged independent initiatives by the Islanders. In addition to leading the public service through the post-war re-construction, one of his main roles in the Falklands was to implement the key recommendations of the Shackleton Report. This included further civil service reform, the process of land reform (farm subdivision), setting up Falkland Islands Development Corporation and the creation of the fisheries zone. Councillor Mike Summers said “David was a very influential member of the Falkland Islands Government in the post-war period. His enthusiasm and work ethic carried the Government team through a number of major and momentous decisions for the Islands, which set the scene for future development. He remained committed to the Falkland Islands and still has a number of friends in the Islands.” David Taylor became recognized as a good listener with an analytical approach and an affection for the islands’ landscapes – as well as the people. In an obituary in *The Guardian*, John Ezard commented “from his later jobs and from retirement, Taylor watched with pleasure as the fishing zone transformed life on the Falklands. At the very least, he and others had bought the time that made it possible.”

David was appointed Governor of Montserrat 1990-93, and oversaw the reconstruction of the island and its economy following Hurricane Hugo. It was after David’s term as Governor that the volcanic eruption again devastated the island on an even larger scale. David took a leading role in some of the investigations of lessons to learn from the way the emergencies were handled. His constructively critical approach came to the fore here. He was particularly disappointed to learn that academic studies of the likelihood of a volcanic eruption and the most sensitive areas had been made available to Government before he was Governor but that no information collation system was in place locally or in London



to keep this information available. Therefore, he and colleagues were unaware of it at the time the post-Hugo reconstruction, resulting in new buildings being constructed in the predicted (and eventually actual) path of volcanic destruction.

After the volcano and in retirement, David remained a good friend of Montserrat, not just in helping lessons to be learnt but also in fund-raising, often with Sir George Martin and the musicians who had used the latter’s recording studios on Montserrat. He served as a trustee for those funds.

In an obituary in *The Guardian*, Louis Blom-Cooper QC reflected on David’s earlier years: after national service in the Royal Navy, he won a scholarship to read English at Clare College, Cambridge. His inclination to serve in the Commonwealth was

triggered when he was posted as a sub-lieutenant at the naval base at Trincomalee, Ceylon (now Sri Lanka), and further stimulated by his chairmanship of the Cambridge University UN Association. Joining the colonial service in 1958 as an administrative cadet in what was then Tanganyika was a predictable step into the retreating imperial world of British colonies. On the country’s independence (as Tanzania) in 1963, a move out seemed prudent, and the following year he joined Booker McConnell, the British-based multinational with global trading, manufacturing and sugar plantation interests, originally formed in what is now Guyana. He quickly became head of one of six divisions, known as Booker Shopkeeping.

David remained at Booker McConnell for the next 20 years, during which time he was chief executive of Bookers (Malawi), director of Bookers (Zambia) and a senior figure in the company’s outposts in St Lucia and Jamaica. After his secondment to the Falklands, David had returned to Bookers from 1987 to 1990, becoming personnel director of Booker-Tate, a joint enterprise with the other large sugar manufacturer.

On retirement in 1993, he was awarded a CBE and continued to write on and discuss the affairs of UK Overseas Territories, notably maintaining his links both with the Falklands and Montserrat, as well as his involvement in UKOTCF. David spent at least two to three months a year in south-west France, exploring the countryside, writing and engaging in water-colour painting, from which he became a regular exhibitor at art shows in London and in French towns. Over the last 11 years, he had formed a loving partnership with Carole Donoghue.

David George Pendleton Taylor, businessman and public administrator, born July 5 1933; died November 8 2007.

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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*.
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