THE FIELD NATURALIST

January - March No. 1/2006

The Darwin Initiative: a non-botanist's experience of a botanical project

Alison Melville

I first heard of the Darwin Initiative at the Field Naturalists' Club meeting in October. Yasmin Comeau, Director of the National Herbarium, spoke about this project, run in conjunction with the University of Oxford in England, to monitor plant biodiversity in Trinidad and Tobago, and asked for volunteers to help with collecting plants on the field trips. This sounded like the thing for me! I have been living in Trinidad since I arrived with my husband, Peter, in May 2005 and I have quite a bit of time on my hands. We are both keen to see as much as possible of the country during our time here, and have an interest in natural history, but no technical knowledge. Indeed, having been born and brought up in Britain, and lived in Australia and the United Arab Emirates, we have discovered that what we do know about natural history is of very little use in the tropics. However, Yasmin, and the project co-ordinator, Shobha Maharaj, were insistent that no previous experience or knowledge was necessary, so we duly turned up for a training session at the Herbarium at the University of the West Indies.

The training started with a 'reminder' of how to describe a plant. I quickly realised that for everyone else present it really *was* a reminder – i.e. this was something they already knew – and I became horribly afraid that Peter and I were the only non-botanists present. I felt even worse when Yasmin helpfully gave examples of plants; the common plants of Trinidad are, alas, not familiar to me. Then we had a go at describing a plant sample – one per table. The two others in our group seemed to have no problems with this, and Peter was well into discussions with them as to whether the leaf base was cuneate or decurrent while I was still struggling with the knotty problem of how you knew if you were dealing with a leaf or a leaflet. However, before I could grab the car keys and slink home in a depression we moved outside to sample some plants in the university grounds and, as with so many things in life, the practice proved to be much easier than the theory.

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For one thing, we didn't have to describe the plants we collected after all. We brought them to a Recorder (Yasmin, in this instance) who entered them on a data sheet, and since she seemed to know the Latin names of all our offerings, she didn't describe them, either. Perhaps this plant collection business wasn't going to be too bad.

The first real field trip was at the Aripo Savannas. Those who were on the Field Naturalists' Club trip will have noticed that a small group fell behind and were seen no more. That was the Darwin team,

busily sampling plants. Yasmin asked us to form two groups, one with Graham White to collect monocotyledons, the other with Victor Quesnel for dicotyledons. Peter and I stepped forward for the first group, then noticed that everyone else had joined Victor. Did they know something we didn't? Well, yes, they probably knew what a monocotyledon was. Thus it was just the three of us creeping round a very soggy savanna looking for different grasses. Perhaps not the greatest introduction to plant-hunting. It became evident that Graham, although almost infinitely better versed in botany than us, had no idea what all the different grasses and sedges were, so non-scientific nomenclature like 'that tall feathery one' was the order of the day. It also became clear that Yasmin didn't't know what they all were either. She said that it was easier to distinguish them if they were in flower – could we get some samples with flowers, please? (The answer to that, if you are wondering, is 'No, not in late October') As a side note to this, we quite probably under-reported the monocotyledons in the savanna. If you can't distinguish them, it is hard to collect a sample of everything. One specimen was nearly rejected as a duplicate of one we already had, until we realised that one had a round cross-section, and the other a triangular. Our big triumphs (all things are relative) were the very few monocotyledons that weren't grasses, such as the domed palm seedling we found.

The Quarterly Bulletin of the Trinidad and Tobago Field Naturalists' Club

January – March 2006

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MISSION STATEMENT
To foster education and knowledge on natural history and to encourage and promote activities that would lead to the appreciation, preservation and conservation of our natural heritage.

Despite Shobha's fears that mud, rain or tedium might have put us off, I reported back for another field trip. This time we went to the Caroni Swamp, and had the delightful experience of a boat ride through the waterways, spotting scarlet ibis, blue heron, egrets and many smaller birds. Thanks to Dan Jaggernauth's sharp eyesight we even saw a spectacled caiman. What we *didn't* see was much variety of plant-life despite looking diligently, just three varieties of mangrove. However, we justified the outing by stopping off at an embankment quite near the entrance to the swamp, and collecting perhaps two dozen other plants. Yasmin was not with us, so a fair proportion of the plants went down on the data sheet without a Latin name, although most of them were identified by a common name.

I have, at the time of writing, been on two further field trips and I think I am hooked! They have proved to be extremely enjoyable, and are taking me to parts of Trinidad that I would probably otherwise never have heard of, let alone visited. We have been joined on some of the trips by staff of the Forestry Division, who have shown young men's enthusiasm for climbing up trees to collect samples, as well as lassoing them, and knocking them off with a long stick. I have found that my ignorance of botany in general, and of the plants of Trinidad in particular, is no great handicap so long as I am in the company of someone with

more knowledge. I treat the plant-collecting more as a memory game. ("Is there a plant here that you haven't seen before?") than something actually involving plant identification. I can usually tell if something is 'different' but I need a "plantsman" on hand to explain that, although the leaves are a different colour and a different shape, this is just a more mature specimen of a plant we already have. Conversely, though, I have found a couple of plants in flower, because I register it as different from what we have already collected, whereas the more experienced eye may pass over it as 'another of the same'.

My experience of the Darwin project then is that it is enjoyable, companionable, allows me to visit a range of places while managing to feel useful as I do so. Who knows, I might even learn a little botany along the way!

Marine Strandings

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As a naturalist and a person trained in the basic theories of marine biology, I have to admit to being helpless if I were to encounter a beached whale or dolphin. That is why I jumped at the chance to learn about how to help these animals. This opportunity came in the form of the Open Day held at the end of a three-day specialised Workshop on Marine Stranding, hosted by the School of Veterinary Medicine at Mt Hope on Friday 18th November 2005.

What are strandings, you may ask? Strandings occur when marine mammals such as whales, porpoises, dolphins (referred to as cetaceans), seals (pinnipeds) or sea turtles become stuck in shallow water near the shoreline. Strandings are not a recent phenomenon and references can be found in ancient Greek literature to this phenomenon. Strandings can be of two types, single or mass. Single strandings as the name suggests involve one animal. These may be as a result of the animal being old, sick or disorientated. In this weakened state it can easily become stranded[1]. Mass strandings, on the other hand, involve between two to 100 animals. They occur in social cetaceans like whales and dolphins. These may be family groups where the leader becomes sick or disorientated and leads the group astray.

Why study stranded animals? The question of what went wrong has to be asked when an animal that spends its life in the water voluntarily removes itself. Also many cetaceans belong to the group of top predators of the ocean, so that their health can be taken as an indication of the health of ocean ecosystems[1]. Studying the causes of their death is useful in detecting diseases that could influence fisheries and human health[1]. Dr. Charlie Potter from the Smithsonian Institution, USA in his talk listed some more causes for strandings, including pollution, environmental changes and threats such as from ships, biotoxins or infectious diseases.

Mrs. Margaret Cooper (Solicitor), in her presentation, stated that laws exist both regionally and internationally for the protection of marine mammals. However, two problems exist; the lack of implementation and, a need for collaboration between the Caribbean islands. David Boodoo of the Wildlife Section noted the lack of law enforcement as well as the public's lack of awareness that harming these marine mammals is illegal. There was also the general consensus that a government institution has to be delegated as responsible and whom to contact first in the case of a stranding. The importance of collaboration among NGOs, government officials and members of the public could not be emphasized enough. Networking with fellow colleagues who have similar interests, both regionally and internationally, was also stressed.

There is currently no stranding network set up in the Caribbean although neighbouring Venezuela and Puerto Rico both have well established networks. But Trinidad is fortunate in that it

has been selected to act as a pilot country for setting up a stranding network in the Eastern Caribbean.

So what is a marine stranding network? This is basically a collection of individuals and institutions (both NGOs and government) involved in reporting and responding to live strandings or beached carcasses and gathering information, all in an organised and efficient manner, like a well oiled machine.

Components of a stranding network include:

- Facilities to perform necropsies, as well as treatment and rehabilitation of live strandings.
- Mechanism or system for reporting live strandings, sick, injured or dead cetaceans.
- An emergency response team to respond to reports of strandings.
- Development of standard and organised procedures for data collection and reporting of information on and from strandings.
- Logistic support and equipment for transport and removal of animals or carcasses.
- Centralised and institutionalised facility at which data, photographs and specimens can be stored for study and research.

You must realise that rescuing stranded animals requires specialised training. But as concerned citizens, if you do see a stranded animal, here are some important pieces of information that you should note:

- The location of the animal.
- What you think the animal is; that is, whale, porpoise (has a blunt, rounded snout) or dolphin (has a beak-like snout).
- Approximate length of animal.
- Condition of animal, either live or dead.
    - If dead, note the state of decomposition of the carcass
    - If it is still alive (look for movement of fins and tail)
        - Is the animal weak or active?
        - Does it have any wounds or is it bleeding?

However you must first think of your own safety:

- Keep away from the tails of live cetaceans; they are very powerful and can inflict serious injuries.
- You should avoid contact with the blowhole that is found on the top of the head as any aerosol from the blowhole could carry airborne pathogens.
- Also avoid contact with the mouth and skin especially if you have cuts or abrasions, to minimize transfer of diseases from animal to human.
- Wash your hands after touching the animal, especially before eating, drinking or smoking.

What you can do to assist in live strandings:

- Pour water over the animal (avoiding the blowhole) if the weather is hot. A wet towel or blanket placed over the animal and continually soaked will also aid in keeping the animal cool.
- If the animal is of a manageable size, for instance, a dolphin, roll it to an upright position on its belly to reduce the pressure on its internal organs.
- Do not pull the tail or fins in an attempt to move the animal, as this can exacerbate stress and cause serious injury.
- Pits can be dug in the sand if the animal is some distance on land to give its pectoral fins space.

Finally as recommended at the Stranding Response Workshop in November 2005, the following is the procedure to be followed when a marine mammal is reported to be in difficulty, or found dead, on the coast of Trinidad.

Initial contact:
1. The Wildlife Section, St. Joseph (Mr. David Boodoo)
   Telephone number: 750-4688
2. Environmental Logistics, c/o Tenderheart Veterinary Services, St. Augustine.
   (Dr. Wade Seukeran) Telephone number: 645-3883 or 689-1586

These bodies/individuals are the initial governmental/NGO contacts and, following a report of a stranding, they will make immediate contact with:

a) The School of Veterinary Medicine, Mount Hope (Dr. Ravi Seebaransingh and/or Professor John Cooper), who in collaboration with colleagues from the Veterinary Diagnostic Laboratory and elsewhere will arrange for appropriate veterinary support and the provision of any necessary extra equipment
b) Other NGOs and individuals with experience of strandings or who have volunteered to assist.

Please note that the arrangements above are provisional, pending meetings to be arranged by the Wildlife Section, at which formal protocols will be formalised.

Acknowledgements
Thank you to Prof. John Cooper and Mrs. Margaret Cooper for their invitation to the Open Day and comments on this article.

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[1]http://www.hsus.org/marine_mammals/what_are_the_issues/marine_strandings.html?print=t

A Whole New Island

Jo-Anne Nina Sewlal and Christopher K. Starr

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Information on the diversity and distribution of arachnids is seriously lacking in the Caribbean as well as northern South America. Currently Barbados is the only island in the Caribbean where the spider fauna has been documented at the species level (G. Alayón & J. Horrocks, unpubl.), although this has been done at the family level for Trinidad (Cutler 2005, Sewlal & Cutler 2003). Keeping this in mind, we have always been on the lookout for an opportunity to add to the information on the Caribbean. This opportunity came with the visit of Quentin "Beeman" Henderson, a beekeeper from Nevis to Trinidad on a Beekeeping conference who offered to host us in Nevis. Why Nevis you may ask. It is a small island where a short survey can yield most of the species there; it was also a place neither of us had ever visited before.

Being the smaller twin island of St. Kitts, it is similar to Tobago in many aspects being the quieter island compared to the busy St. Kitts. Both islands are located in the northern Leeward Islands in the eastern Caribbean (17°10'N 62°35'W). They are separated by a 3km wide channel called the Narrows. Nevis has a range of habitats including rainforest, dry woodland, wetlands and grasslands. The pace of life in Nevis is rather slow compared to that in Trinidad.

On the first day there, as our host was driving us home from the airport, we saw a sign that said "Swale Ahead". A swale is a very shallow, angular dip in the road that serves for drainage. At first sight we thought it was intended as a kind of speed breaker, except that Nevis is so small there is not much of a chance of building up a speed when driving. Also swales occurred in all kinds of places that had nothing to do with road safety. We thought they were such fun to drive through that whenever we came to one, marked by a sign or not, we would call out "Swale", letting the locals think what they would. Another interesting sight was that of public dustbins encased in elaborate fences made with scraps of wood, to protect them from donkeys. Donkeys are very common in Nevis and are still used by some of the older folks as a means of transporting people and wood to turn into charcoal.

A few days after our arrival we trekked up Nevis Peak, the central and highest point in Nevis. Discovered by Columbus during his second voyage in 1493, the name he gave it was "Nuestra Senora de las Nieves", which translated means "Our Lady of the Snows". This was because the clouds that encircled the central peak reminded Columbus of snow (Robinson and Lowry 2000). Nevis Peak can be separated into three main forest types and in turn habitats; montane, palm brake comprised almost entirely of *Prestoea montana*, and Elfin woodland. There is a little over a hectare of true rainforest in Nevis (Lowery 2000). We were led by Jim Johnson, a former VSO worker. During our hike he told us of the local plants used in the practice of obeah in Nevis. One of these is *Dieffenbachia* sp., whose sap causes temporary paralysis of the larynx. Farmers take advantage of this and rub their fruit with this sap. So the villager "cursed with dumbness" would be the one who stole the farmer's fruit. They also put various seeds into green bottles and hang it around their property as a signal that the land is under supernatural protection.

Although we did not reach the top, we had our first dose of reality in that one factor we had to bear in mind for our survey was that some species could be introduced. This was so since the arrival of some spider species coincide with that of other introduced species, for example fire ants, of which Jim told us, there was a large nest at the top of the peak. Jim was quite a wealth of information, in our minds – Nevis's own version of Dan Jaggernauth.

Ruins of Coconut Walk Estate
Photo by Jo-Anne Sewlal

On our trip we visited many of the local attractions, including the Alexander Hamilton Museum. Alexander Hamilton, one of the founding fathers of the United States of America and their first Secretary of the Treasury (Robinson and Lowery 2000), was born in Nevis. Britain's most famous admiral Lord Nelson married the widow Frances Nisbet, whose uncle Mr. Herbert was the richest man on the island at that time. The Museum is also home to the Nevis Historical and Conservation Society (NHCS). The NHCS is similar to the TTFNC in that they hold regular lectures and field trips. Like their name suggests they focus both on protecting and documenting the historical sites as well as the flora and fauna of the island.

Quite a few of the old sugar plantations have been converted into hotels. One of these is the Golden Rock Plantation Inn located on a 39 hectare nature reserve in Gingerland. It is actually housed in some of the original stone structures of the family's sugar plantation. It is owned and operated by Pam Barry, whose family has run this inn for over 200 years.

Many such ruins are found throughout the island for instance, the New River and Coconut

Walk Estates. Coconut Walk was the largest sugar mill on the island. Most of this stone work seen was built between 1810 and 1834, with some dating back to the mid 18th century. Many locals shun the idea of restoring these ruins, and view them as a symbol of slavery. One can drive right up to these ruins but the long way involves a pleasant 2 hour walk from forest through grassland to the coast on the gentle topography. The change in landscape and vegetation is amazing with cacti and a variety of succulent plants dominating the coastal vegetation.

As I mentioned earlier donkeys are used as a domesticated animal on the island, but packs of feral donkeys were a common sight, as were goats, both of which fed in the grasslands. Grassland is quite easy to navigate through; it is made easier by following the trails of trampled grass made by these animals. However, also easy to get lost in as sometimes these tracks lead to shrubs which these animals sit under to shade themselves from the midday sun. African Green Monkeys or Vervets (*Cercopithecus aethiops*) are a common sight on the island and are considered a serious crop pest (Robinson and Lowery 2000).

Feral donkeys on the coast
Photo by Jo-Anne Sewlal

In terms of plants, the vine coralita (*Antigonon leptopus)* is quite abundant in Nevis. This plant is also found in Trinidad and its pink flowers are abundant all year round and serve as a constant attraction to bees hence its common name – Bee Bush. It is no wonder that Nevis is referred to as "Queen of the Caribees" on account of the large bee population on the island (Robinson and Lowery 2000).

Sampling took us to the gardens of private residences, as well as some public gardens including The Botanical Gardens of Nevis which opened in 1998 and is situated on approximately 3 hectares. Its beautifully landscaped grounds include collections of palms, trees, shrubs, cacti, vine arbours, roses, orchids and tropical fruit trees. Another garden visited was the Mount Palmetum, which sits on 3 hectares of land and is home to 159 out of 2700 species of palms. This private collection was started in 1976 by Lewis Knudsen and was recently opened for public viewing.

The people were very helpful especially in suggesting area we might want to sample. However more had questions than suggestions. The most common question asked was "Are there any poisonous spiders on the island?" The answer we would give would be the same as for Trinidad. All spiders produce some form of poison. Currently there are poisonous spiders but no species found in Nevis whose bite is known to be fatal to humans. Now that does not mean that you can go petting every spider that you see. Some people are fatally allergic to a single bee sting. People react differently to each type of venom depending on their size, age and metabolism. Nevisians refer to the genus of spider *Gasteracantha*, a spiny-back spider as "Anansi". The reason being that it was similar (or same) as an African species, hence the slaves thought that Anansi had followed them to the Caribbean to watch over them. It was taken as a sign of good luck as they had not been forsaken by their African folk gods.

Our visit did not only entail spider hunting, as news of our arrival also brought stardom. During our visit, we were scheduled for interview for the local television channel and radio stations. In all our interviews we tried to carry across two points. Spiders will not bite humans unless aggravated to do so, either intentionally or accidentally. After all they are about a million times smaller than us.

The second point we tried to convey was that spiders are farmers' friends, and their presence should be encouraged since they eat insects and will in turn keep down (not eradicate) insect pests.

We conclude that Nevis is a charming island and encourage anyone to visit.

Acknowledgments

This project was also made possible through partial funding from the Dept of Life Sciences, The University of the West Indies, St. Augustine, Trinidad, W.I. Thanks to Quentin "Beeman" Henderson for hosting us, and the Ministry of Agriculture of Nevis for the warm welcome to the island.

During our stay there we have made many friends, (and I don't just mean spiders), who we would like to thank for their hospitality (especially letting us hunt in their gardens for spiders) and help in collecting spiders: the Lumsdons (especially Barbara), the Robinsons, the Rules, Jim Johnson, Gordon Avery, Thomas Lash (Medical University of the Americas), Tony Persaud (The Mount Palmetum), Pam Barry (Golden Rock Inn). John Guilbert (NHCS). Thanks to all.

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What is a forest? Biodiversity research in Matura National Park

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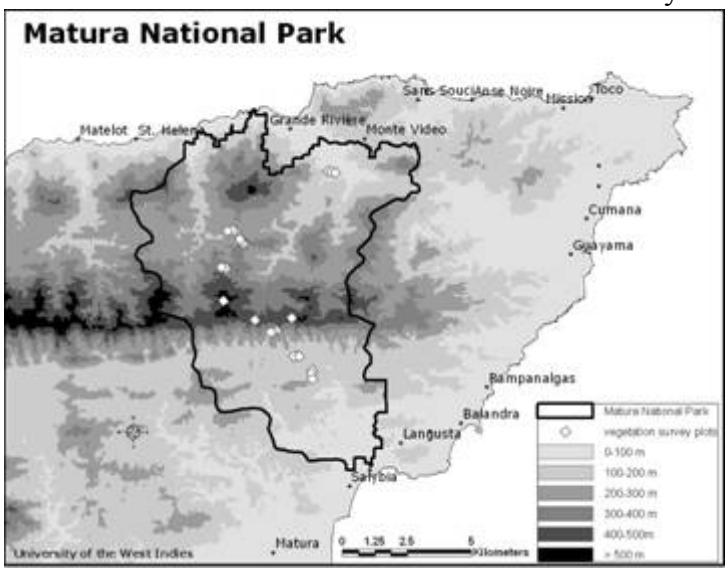
My dictionary defines a forest as a dense growth of trees, plants and underbrush covering a large area. That is a broad definition. Naturalists like looking at the 'untouched' aspect and categorise primary vs. secondary forest or pristine vs. disturbed forest, based on whether and how human activities have impacted upon or disturbed the forest. These definitions are somewhat utopian, as numerous studies across the globe have shown that what we often define as pristine or primary forest, is still often altered, used or managed in some way by people.

When we look at how lay people define a forest, it gets more interesting and variable. This is one of the issues we look at in the research we do on the forest and the use of its resources in and around Matura National Park (MNP). MNP was declared an environmentally sensitive area (ESA) by the government of Trinidad and Tobago in November 2004. This 9,000 hectare area of forest situated in the most eastern part of the Northern Range includes the watersheds of the Rio Seco, Rio Salybia, Grande Rivière and Shark River. In order to base the management of this forest on scientific data and arguments, taking into account the views and needs of local communities and stakeholders, the Environmental Management Authority commissioned the Department of Life Sciences of the University of the West Indies to carry out a baseline biological survey. We are currently studying the vegetation and plant communities of Matura National Park as well as the use

local communities and outsiders make of the forest and natural resources within it. This is done in participation with Forestry Division personnel and members of local communities. Surveys of birds, butterflies, reptiles and arthropods will be starting shortly.

So, returning to the question of what is a forest, what is the forest like in Matura National Park? Naturalists again would describe it as a mixture of primary and secondary forest. The secondary forest is the result of logging and tree crop plantations (cocoa, coffee, nutmeg, fruit trees, and timber trees) that are now mostly abandoned, and have usually been for decades. Even the core area of seemingly primary forest is altered in some way. Small-scale logging has taken place in certain areas. Hunters, bird catchers and marijuana growers alter the forest vegetation at a small scale. Also natural factors like wind and heavy rain can cause serious changes.



Map of Matura National Park
Veerle Van Den Eynden

When studying forest use, one has to start by understanding how local people see the forest. This is where variation starts. There is no clear-cut, simple definition. It is influenced by use, tenure, even gender and is also person-specific. When asking people how the forest is used, it becomes clear that for some people 'forest' means any grouping of trees, whether native or introduced, near the house or far away - a synonym to 'bush'. Others make detailed distinctions and consider 'forest' to be synonymous with 'primary forest', which is locally called the 'highwoods' or 'jungle'. Nearer villages clear distinctions are made into estates (plantations with tree crops), abandoned estates and plantations. None of these are called forest. Except when it might be advantageous….

Recently there was a heated discussion during a group forum in Matelot, as to whether abandoned estates are forest or not. The majority of people insisted that the two are very clearly distinct. Forest is forest and abandoned estate is abandoned estate. Until it became clear that the hunter who insisted that abandoned estates are the same as forest, referred actually to the ownership of the land. He argued that abandoned estates return to being state land if taxes are not paid for 20 years. Therefore they are then back to being forest, not estates.

So for some people, forest becomes synonymous with 'state land', and private land is not considered to be forest, even if it has obvious forest vegetation. Here use determines to some extent what a forest is. State land is somehow neutral terrain that many people feel can be used for any purpose. Private but abandoned land is usable to some degree, but people know that there is an owner out there somewhere, and access rights could change.

Forest is also distinguished from abandoned estates because of other use aspects. Many hunters consider abandoned estates to be much richer in wildlife than primary forest, at least where old plantations contained many fruit trees. They even argue that fruit trees should be introduced into the primary forest to provide more food for animals, as this would surely solve the problem of dwindling numbers of animals. Lack of food means animal's survival is threatened they say. This would no doubt make any ecologist cringe. The fruit forests of Matura National Park!

Women tend to have less outspoken or clear-cut views of what a forest is, partly because of a less intensive use of the forest. So far no individual vernacular names have been found to exist for different types of forest, such as Mora forest, mixed tropical forest or montane forest.

But research is very much on-going, so this certainly is not the last there is to be said about how people in Trinidad define a forest. This is obviously only one small aspect of what is being researched, but forms part of looking at all the different interactions people have with various parts of Matura National Park and forests in general and what motivates people in these interactions. The ultimate aim is to be able to say in detail who uses what and where in Matura National Park for which reasons, and how this affects its biodiversity.

Also the detailed vegetation survey that is being done throughout MNP will add valuable information. Primarily of course on the composition of the forest, as at least 24 sites are studied in detail, including abandoned estates and the various forest types found. But the group of local people, forestry people and researchers involved also provide interesting views on appreciation of forest. The love is very high from a distance, but might start to dwindle slightly after a few days and nights spent trudging seriously steep muddy slopes surveying plants and collecting (too) high trees, especially when rain increases the discomfort.

Further detailed information on this research should by the time this is published be available on the project website, which you can find via http://sta.uwi.edu/fsa/lifesciences/research.htm. Plus anyone wanting to join us on a trip in MNP in order to add his/her views on the forest is very welcome.

An Exploratory Trip to Macuro, Venezuela

Reg Potter

Departure was at 04.30 hrs Wednesday 2nd November 2005, from Chaguaramas in darkness using the engine in the absence of any wind, heading west to Venezuela. Our home for the next five days was the sailing yacht 'Acamar' on loan from my cousin in this expedition to Macuro on the Paria peninsula of Venezuela. The team consisted of myself, Selwyn Gomes, Clayton Hull, and Charles de Gannes. In the preparations for the trip I had encouragement and assistance from the His Excellency the Ambassador at the Venezuelan Embassy, and the representatives of the Guardia National Coastguard, to prepare for our arrival.

The Paria peninsula is a direct continuation of our own Northern Range with similar vegetation and geology, but extends onward to the west becoming the Araya peninsula where it changes from rainforest to barren dry rock sheltering the west-facing Golfo de Cariaco, and the town of Cumana. Our journey was to the small isolated village of Macuro in the Gulf of Paria on the southern shore of the Paria peninsula to explore some of the upland forest, where there are several peaks higher than our own El Tucuche and Aripo. The Paria peninsula is a declared national park. This western side of the Gulf of Paria however suffers from dirty brown water since the outflows from the Orinoco and rivers north of this swirl around the west shore before exiting through the Grande Boca. Clearance formalities are only possible in the port of Guiria further west, which literally meant doubling the length of the journey, and sailing back to Macuro.

By the time we were crossing the Grande Boca the sun was high and we had slight assistance from the sails. We sailed close to the south coast of Patos, where two bays looked inviting, particularly the one near the western tip of the island where a rusty-roofed house can be seen inside the bay. We saw no sign of any one on Patos. The north coast of the island consists only of vertical forbidding cliffs where rougher seas from the Grande Boca crash onto the rocks.

At 15.00 hrs we were tied up alongside an oilfield workboat in Guiria harbour after glorious views of the Paria peninsula coast, and a brief squall that sped us on our way. Clearance under arrangements by the very friendly Guiria agent, Angel Acosta, commenced and continued until into the night, even though we shared the attentions of officials who were mobilised to handle the weekly trip of the "C-Prowler" from Pier-1. While clearance proceeded we were taken to the

agent's office, had a meal in a very hot restaurant near the square, and returned to the boat to sleep. Since most of the time was spent indoors we saw very little of the town, but were surprised to see a funeral taking place at night.

Next morning departure was 06.30 with a good breeze and the current lifting us to windward put us in Macuro bay by 12.00. After landing in our inflatable dingy on the concrete slipway and tying to a tree on the shore promenade, we asked for the Jefe Civil, Sr.Guzman who quickly appeared and greeted us. 'Conversation' in broken Spanish followed, where we explained the purpose of the trip was to reconnoitre the area for a possible later trip by TTFNC, we then proceeded on a tour with Sr. Guzman. Along the way he introduced us to an English-speaking resident, visited two posadas (guest houses), a 'restaurant' (no sign), met a guide (Aristide), and 'Seku' an octogenarian we had been told to meet who had a Trinidad-born father. Seku speaks excellent English and is a regular visitor to our shores. Having met his family we enjoyed a cold beer and some maltas under the almond tree-shaded bench in the mid-street island. We then met Sargento Espinoza in charge of the Guardia National detachment, and continued our exploration alone, later meeting Sra. Adona who is in the boat building business and seemed knowledgeable about local history.

The town is surprisingly well laid out in parallel streets and orderly small houses with a very definite Spanish flavour. There is clean piped water from a dam higher up the valley, a sewerage system, public telephones, electricity from the diesel generator station, and a wide tree-shaded promenade along the main seafront, all for a population that ranged in estimates from 1800 to 3000 according to whom one speaks to. A statue of Columbus on the promenade commemorates his first landing on the South American continent. Macuro is a weekend holiday destination for residents of Guiria, and some foreign eco-travellers. On Friday two boatloads even arrived from Margarita! At the north and west edges of the town there are numerous samaan trees and the roads become tracks. The main stream from the valley largely disappears underground into a boulder substrate before meeting the sea, so only exceptionally heavy rain fills the river course. The whole town was painted in 2000 prior to a visit by President Chavez, and still appears quite clean. It is quite isolated from the rest of Venezuela since the dirt road is reportedly usually impassable and so steeply graded that vehicle use is really not recommended. We saw one vehicle (a pick up) in the town in our two days there. All transport in and out is effectively by the high-prowed pirogues that leave often before dawn and return in the late evening in large numbers, so that very few boats are seen in the day except for those under construction or repairs on the beach, and in a large ruined Customs House at the eastern edge of the village. At the western end of the bay is the abandoned gypsum quarry and loading jetty. Overall the atmosphere is of a very impoverished, but peaceful and orderly village where the main activities seem to be fishing and small-scale agriculture, and neatly-dressed school children can walk alone to school fearlessly while being greeted along the way. A common recreation on a Saturday is a form of bingo in small groups beside the road, and baseball in the street, but we found no evidence of local music. These of course are the observations of a language-handicapped short-term visitor. The area is known for significant amounts of maritime criminal activity, but the people advised this is mainly

Selwyn, Clayton and Charles in a street in Macuro. Photo by Reg Potter

on the north coast of the Paria peninsula, though they still advised us to move our yacht nearer the seafront lights and not to overnight at Patos.

Next morning (Friday) we met our guide and started walking at 07.30, straight north on the road with the public phones, and onto the track through samaan trees and coffee plantation. The objective was an eastern peak, north of the village, which is shown on maps as 985m high. We were told that the foot and donkey trail to a village called San Pedro on the north coast crosses this peak. It should be explained however that although this seems only slightly higher than our own highest peaks, the hikes up El Tucuche start at 137 or 381m, and up Aripo at 465m. In Macuro you start at sea level and it's a hell of a hike! Passing a picnic spot next to a stream we continued gently up through secondary growth trees and plantation crossing the stream twice in the valley floor where the soil is quite red, before starting more steeply zig-zagging up a spur on the west side of the valley. Most of the vegetation is quite familiar but once in the forest we encountered 'Algarobo' trees (Locust or Stinking Toe) with pods similar to Mora, and several unfamiliar flowers on trees and vines were noted.

Beach. Photo by Reg Potter

The trail climbs generally NNE (north north east) ever upward through secondary forest and coffee plantation with some interspersed sections that seem relatively undisturbed until after about 1 ¾ hours walking it turns right and starts contouring along the slope at about 488m (GPS measurement – very unreliable!). All the way up the soil shows an abundance of white fine sand and any rocks found are quartzite sandstone. Butterflies seen included South American Morphos, Brassolids (like Mortbleus), Flameaux, Lycaenids (Bluies), Pierids, Ithominids (Blue and Brown Transparents and Tigers), and Satyrids (like drab Ladyslippers), but Charles did not succeed in catching a specimen of the beautiful Morphos. Butterflies were not particularly numerous. Some large rock outcrops are passed with bedding planes difficult to see, but appearing to dip generally SSW (south south west). A strange bird call here was heard from a bird Aristide called "piapoco", a name that simulates the call. It was thought to most likely be the White-throated Toucan. After a few undulations a stream is crossed where we had a snack, and the trail heads more north climbing again, passing one left fork and entering cloud forest after about 3 ½ hours walking. Only at one point was there a view down to Macuro. Soil above the measured 488m appears similar to our own brown Northern Range soils and rocks seen are mostly shiny phyllites. The cloud forest began at the crest of a ridge where through a gap in the forest we could look down a very steep escarpment to the north into the mist, but with no view of the sea. Here we found numerous bromeliads with dark green transverse striped leaves and a large bright orange flower, similar to those on El Tucuche where the flower is redder. The 'Anare' palm *Prestoea pubigera* is abundant here.

The trail continued generally north to the high point where a wooden cross is set beside the path. This point, Aristide insisted is the highest, and from here on it descends to San Pedro. 'San Pedro' I have not found on any map, but from written accounts it is described as being a place on the north coast with a few residents but no boat landing. The trail down to it divides at Los Chorros (2 houses) where it forks left to the bay of Uquire with reportedly some 25 resident families, and right to San Pedro. We left the path by branching off to the right at the high point and headed back SSE (south south east) a short distance on a forested ridge looking for a peak. This proved disappointing since after rising about 6m it started to descend. Here the GPS showed 861m, which

is a long way short of the 985m expected, and with the mist and forest cover there was no view of any higher ground, although we did get glimpses of the blue Caribbean down to the north. It had taken 4 ½ hrs to get here and it was time to start back.

Back in Macuro in wet clothes after several river baths, we booked a meal and wandered down to the promenade while it was cooking. Here we met Sr. Guzman with a group enjoying some cold beers and a bottle of Cacique rum, which was passed around. Invited to join them, some of us enjoyed a 'bevy' before a delicious fish dinner and return to Acamar in the dingy.

Saturday morning brought a new plan. Without any plans to climb to those elusive peaks again we had effectively exhausted the pleasures of Macuro village in terms of what we could do in the remaining time. Hence we resolved to leave that afternoon and divide the return journey into 2 shorter legs. The morning was therefore spent on a walking tour to the gypsum quarry in the west and the bay of Aricagua in the east, and saying our farewells to those we had told that we would depart on Sunday. The gypsum quarry consists of rusting equipment and a conveyor belt steel jetty sited at the foot of a scarred cliff of steeply SSW (south south west) dipping massive beds of gypsum probably totalling over 46m in thickness. The gypsum is underlain by dark shaly beds with a peculiar lumpy texture, and overlain by phyllites, which become soft and appear carbonaceous. However the whole sequence is highly disturbed with much 'slicksiding' and shattering so it was not clear if it was an un-interrupted geological progression. Massive blocks of quarried sugary white gypsum are seen plus some rocks of denser grey crystalline gypsum on the ground. The bay of Aricagua is accessed by dirt road at the eastern end of the town, which curves around the inland areas at low level. Well tended coffee, cocoa, bananas and citrus were seen and a crystal clear stream flows in from the north-east to low wetlands with dense *Montrichardia* and cane grass, and tall mangroves fringing the sea. This area appeared to have a lot of potential for birding and possibly hiking upland, if trails can be found. We enjoyed a river bath and returned to the yacht for a later than planned departure.

We sailed out of Macuro bay at 14.50 against a stiff easterly, tacked upwind of Patos observing the hostile northern cliffs under a grey sky, and entered Chacachacare bay just after dark. The clearly visible lights of "the West" and Port of Spain, plus boats and campers in Chac bay were very welcoming. Next morning in calm sunny weather we snorkelled and explored before a leisurely motor back to Crews Inn.

As regards the attractions of Macuro for a club trip I would say this would be mainly for the curiosity of being in a different cultural environment, and those very fit specialists who would be able to identify differences in flora and fauna from T&T. Most of the natural landscape is similar to Trinidad, which in so many areas is superior and easier to access. Travel logistics are difficult due to the absence of a port of entry closer than Guiria (which is not an attractive destination), and one has to stretch the law somewhat to avoid returning all the way to Guiria for outward clearance. Accommodation is primitive but cheap at US$5.00 per head per night in a shared room with en suite bathroom. Personally I am attracted more to the high country since there is more high area than in Trinidad, but the long hike to get there means a camp at high altitude for a couple of nights (with the associated heavy back packs) would be the most practical solution. The north coast looks very beautiful but it would be an equally long haul down there and back, and reportedly a much higher risk of encountering criminal activity. Overall impression on our return was "Trini sweet, boy".

EDITOR'S NOTE

A high-quality version of a map of the Maccuro area can be found on the Club's website: http://www.wow.net/ttfnc/

Banwari - Oldest Indigenous Settlement in the West Indies

Peter Harris

In 1969/70 the south section of the T&T Historical Society, a small group of friends with little experience and no budget, excavated an unknown preceramic site in San Francique. Our 2x2m unit bottomed at 225cm, and the C14 dates of BC 6000-4000 backdated our indigenous history by 5000 years. In 1971 a joint Trinidad-Dominican Republic team excavated a complete skeleton dating to say BC 4200. Despite efforts to preserve this important site in collaboration with Town & Country Planning, in April 1985 the owner sold off 75% as building fill at $5 per truck load. The newly formed Archaeological Committee requested acquisition by the state of the remaining 25%, and in 2000 the owner finally agreed. (Artefacts exhibited were brought mostly from the Wild Fowl Trust indigenous exhibit at Pointe a Pierre.) In 2005 UNESCO funded a budget to upgrade data quality. Our two main targets are (1) careful excavation of a 1x1m unit to retrieve level samples which match the deposit strata; (2) specialist analysis of shells, bones, cherts, rock, and botanical remains. Some will be analysed here by an overseas specialist working with a local resource person, so that mutual learning takes place. Other specimens will be sent overseas. The site is on a hilltop on the south edge of the former Oropuche Lagoon 8km from the sea. The 1802 Mallett map gives a good idea of this 27km long body of water and swamps before it was drained. The site is located at the junction of 4 resource zones: interior forest, Coora River, Lagoon, and, by canoe, the Gulf of Paria off Mosquito Creek. The Lagoon mouth is flanked by two recorded indigenous sacred places: Naparima Hill which is clearly visible from the site and the Pitch Lake where an early grooved axe (say BC 7000) has been found. We hypothesize settlement layout as a single East-West oriented structure on the North-South oriented hillock, plus a small cemetery plaza immediately north facing Naparima Hill.

The 1970 stratigraphy showed three strata: the earliest dominated by freshwater shells, the second by earth and the latest by brackish water shells. These suggested rising sea level and a marine transgression about BC 5000 bringing mangrove as far inland as Penal. Our 2005 stratigraphy is more detailed, but so far does not alter the general picture. Only one shell artefact has been found, a blank probably for a small celt. Shell remains are abundant, and clumps suggest single dumping incidents. The specialist will probably come here, and we are looking for local resource volunteers. Bone artifacts include straight fish “hooks” with a point at each end, arrow points, a larger unknown tool, awls, and bone needles. Bones are reasonably frequent, and will go overseas. UWI does not have a zooarchaeology reference collection.

Stone artifacts include items made by grinding, rock and chert flakes, and small pieces of white and transparent quartz. Overseas stone artefacts include conical pestles of different sizes (no manufacturing debris are found, so presumably they are imported whole), chisel, piece of serpentenite bowl, and a used stone. Local stone items include manos of different shapes and sizes including a scone shape, grinding stones, mortars, a chopper, and a grooved axe. The specialist will come here. We are looking for resource volunteers, especially those with knowledge of local chert sources.

Botanicals include two new techniques for us, flotation, and starch grain residue analysis. The samples will go overseas. You can see that protein staples are well covered by shells and bones. But starch is an unknown. Till recently I thought this might be derived from natural stands of palms, like the Warao Indians of the Orinoco Delta prior to 1930/70. But the manos and grinding stones suggest bulbs or roots of water edge plants are more likely. We should appreciate any ideas. Finally I feel that local heritage groups are the only answer to effective protection of any form of heritage including sites. So we are establishing a site advisory committee which includes interested representatives of the San Francique community.

FIELD TRIP REPORTS

BOTANY TRIP - Catshill Forest Plates
Compiled by Nicholla Johnson
Photos by Dan Arriola and Nicholla Johnson

Anthurium hookeri

Mora excelsa seed and pod

Ludwigia sp.

Polygonum punctatum
(rare species)

Tilandsia sp.

Vriesia amazonica

Calathea lutea- Sohari

Omphalea triandra (leaf with glands)

Omphalea triandra (fruit with nut)
Hunterman's Nut

Cymbopetalum brasiliense

Ottonia ovata ('Pot') - Piperaceae

Ottonia ovata

Botany Group

Palo Seco Mud Volcano/Banwari Site - November 27th 2005

Jo-Anne Nina Sewlal

Thirty-four members attended this month's trip to Palo Seco Mud Volcano and the Banwari site both in south Trinidad. We left Grand Bazaar meeting point at 7.00am with the first stop being the archaeological site in Banwari Trace Penal where the oldest skeleton in Trinidad was discovered. Banwari Trace was approached via the minor roads linking Debe Junction, Suchit Trace and Gopee Trace.

In 2004 this site assumed global prominence being included among the world's 1000 most endangered sites in the internationally acclaimed magazine World Monument Watch. At the 21st Congress of the IACA (International Association for Caribbean Archaeology) held in Trinidad in July 2005, Dr. Basil Reid lecturer and head of the University of the West Indies Archaeology Centre, stated that the discovery sheds much light on the migratory patterns of Archaic (pre-ceramic) peoples from South America to the Lesser Antilles between 5000 and 2000 B.C.[1], using Trinidad as a migratory stop.

At the site Mr. Peter Harris, joint leader of the Trinidad & Tobago-Dominican Republic team which excavated the Banwari skeleton back in 1971, gave us a brief history of the area including the likely topography at the time of the original settlement. Prior to 1901 the land was owned by Mr. Banwari, after whom the Trace and site are named. Unfortunately a large section of the hillock was sold as landfill in 1985 by the then owner. In 1990 acquisition was approved by the State, but transfer of ownership of the 3,127m^2 parcel was not complete until 2000. After being cautioned by Mr. Harris not to disturb or pick up any objects from the ground, we were led to his current excavation.

This dig measured one square metre. String marked the depths of natural stratigraphic layers. This was quite a time-consuming task, to say the least, with only 5cm of soil being moved each day. Here we learnt some details on the lifestyle of the people that once inhabited this area. Their diet consisted of shellfish, mammals and fish, evidenced by the freshwater, brackish, and marine shells and bones that made up the refuse. In present-day ethnography, this is usually sited at the back of the house. It is common practice to bury important persons in a plaza, and ordinary persons in the refuse. A shallow cemetery may lie to the north, because when the 1985 earthmoving took place, bones were found sticking out of the profile in an area without shells.

Banwari Man or Woman (this is still to be checked) is the only whole skeleton found at the site. Other human bones were uncovered, some of them in bundles. This suggests a custom where the body was first left in the forest to "deflesh" naturally; for example, through ants. Then after a few months to a year, the skeleton was collected and buried. Why the Banwari skeleton was buried whole is not known. The site has been carbon dated to the period 6000-4000 BC (years before Christ), and suggests a date about 4200 BC for the skeleton or 6200 BP (years before Present)[1]. This makes the Banwari skeleton the earliest known human being[2] in the West Indies. Other Banwarian cultures are known to the east in coastal northwest Guiana dating from 6200 to 6000 BC, and to the west in coastal northeast Venezuela from 4500 BC. These settlements are early. The pyramids in Egypt probably start around 3000 BC. The site is not only important to archaeologists, but also to the indigenous people of the Americas. Many came to pay their respects during their visit for Indigenous Peoples Day on October 14th 2005.

Mr. Harris also gave us a brief introduction to indigenous oral tradition and the role some of the mountains in Trinidad played in their beliefs. The Banwari skeleton may have belonged to the Warao people who live in the Orinoco Delta. The Warao people have four sacred mountains each representing one of the cardinal points. The ones that represent East and West are fictional. Naparima Hill in San Fernando is their North sacred mountain. Its Warao name is Nabarima,

"Guardian of the Waters". It is home to their supreme spirit of the North, and also to their culture hero, builder of the first canoe, and his mother, their divine ancestress from the giant otter spirit people. We could clearly see the hill from the site. The South sacred mountain, Wahakarima, "Guardian of the Sandbanks", is in Venezuela. It is home to their senior supreme spirit. Incidentally it is also the site of Venezuela's first commercial iron mine.

We then questioned Mr. Harris on some technical aspects of the excavation. The most important question we all wanted him to answer was "how do you know where to dig?" The answer was the presence of shells, since these are usually the principal food remains. Interestingly the shells are predominantly freshwater in early Banwari, whereas in late Banwari they are predominantly brackish. This change suggests a rise in sea level and marine transgression of the Oropuche Lagoon at least as far as Penal.

Human and animal remains are not the only items found in the deposit. Bone artifacts, such as fishing arrow points, two-pointed fish hooks, and even a needle have also been uncovered. Conical pounders made from overseas stone are probably the most important artefact. Absence of stone chips indicates that they were made elsewhere. This artefact is diagnostic of Banwarian in Trinidad and is not reported from northwest Guiana or northeast Venezuela. Overseas items usually indicate cultural and political importance. It seems that even the early Trinidadians imported.

Next we were on our way to the Palo Seco Mud Volcano. We drove through Fyzabad junction past a statue of Uriah "Buzz" Butler, trade union leader who fought for the rights of oilfield workers during the 1930's. This was also the site of tragedy when policeman Charlie King, assigned to arrest Butler, was burnt alive by Butler supporters. We passed "through the fields" in Fyzabad, that is, oilfields where huge pumping jacks dotted the sides of the road. It was then on to Palo Seco.

Members between the mud volcano cones. Photo by Jo-Anne Sewlal

We parked the vehicles at Beach camp. This is a residential section set up by the Petrotrin oil company for its staff. This was a bit of a distance away from the volcanoes but was chosen for security reasons rather than convenience. On the walk to the volcano, Club President Carrall Alexander pointed out the various buildings along the way, such as the maintenance building. Along the way we heard the bottle and spoon frog (*Lepodactylus validus*) as well as the channel-billed toucan (*Ramphastos vitellinus*). We passed through what appeared to be part of an abandoned estate evident by trees such as lime (*Citrus aurantifolia*), avocado (*Persea americana*) and orange (*Citrus sinensis*). The land is still used for cultivation as shown by a small plot of pigeon peas (*Cajanus cajan*). Other trees besides fruit trees included sandbox (*Hura crepitans*), tantacayo (*Albizzia niopoides*) and cedar (*Cedrela odorata*). Lepidopterist Charles de Gannes noted seeing butterflies such as postman (*Heliconius melpomene*), flambeau (*Dryas iulia*) and members of the family Pyridae.

After about 100m the road turns into a track leading to a cluster of mud volcanoes, all of which are in varying stages of activity. Trinidad has 25 confirmed active mud volcanoes (Comeau 1993). We visited three of the cones found at Palo Seco Mud Volcano. It is not uncommon to find seaside plants growing in the vicinity of mud volcanoes. In this case it was the dreaded manchineel (*Hippomane mancinella*). A small species of calabash (*Crescentia* sp.) was also observed. To finish off the last trip for the year some members stopped for Indian delicacies at Debe Junction. This section of the street was formerly referred to as the "Oil Stretch" because of the numerous doubles vendors.

References

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[1]http://www.sta.uwi.edu/conferences/iaca/banwari.html
[2]http://www.trinidadepress.com/index.pl/print?id=68235186

Bird Group Trip- Arima-Blanchisseusse Road/Morne Bleu
February 5th 2006

Feroze Omardeen

It did not feel like Trinidad. The chill from the breeze swirling around Morne Bleu's transmitting station gave the strange feeling of an early autumn morning that had somehow become very green. The birding trip had been clouded out. Now and then, mist coming up the north side of the range swirled around us. But it was still clear that the tanagers ruled the canopy.

Of the forty-odd species that we recorded on the trip, eight were tanagers. These ranged from the abundantly common Palmiste (*Thraupis palmarum*) to the high elevation specialist Speckled Tanager (*Tangara guttata*). The tanager family (Thraupidae) is a particularly large and varied one, which contains numerous colourful and lively species that brighten up our towns and our forests. They generally have "thin, squeaky, unmusical voices" (Hilty 2003), and oftentimes there is much variation between the sexes. On the ridge that day the Bay Headed Tanager (*Tangara gyrola*) was in abundance. This bird has the peculiar quality of appearing more beautiful every time you see it. Its shimmering green flicked through the trees, outdone only by the flash of the male Green Honeycreeper (*Chlorophanes spiza*). Even without the direct sunlight, these birds' colours were striking. The vantage point next to the guard hut allowed us to see the birds from above. Take our word for it; the Violaceous Euphonia (*Euphonia violacea*) looks even more violaceous from above! The Golden Crowned Warbler (*Basileuterus culicivorus*) really does have a golden crown!! Group Leader Clayton Hull's telescope showed us the intense colours of the Channel Billed Toucan (*Ramphastos vitellinus*). Also richly coloured was the Squirrel Cuckoo (*Piaya cayana*).

An energetic and noisy guard dog did not allow us to photograph the oversized Harlequin beetle on the fence. It looked like a bug in a Carnival costume. We walked around the station's perimeter to the eastward trail on the ridge to leave a temperature sensing device for the Club. The Gray Breasted Martins (*Progne chalybea*) appeared to be occupying many available sites on the manmade fence and lights, and we wondered if they nest there. No raptors were in sight from the top of the hill that day. Presumably they sit and wait out the weather.

On the car trip to Morne Bleu in the early morning, we had marvelled at the orange patches of the introduced immortelle, high up the side of Verdant Vale. This tree (*Erythrina* sp), brought

here by indentured labourers, has become a vibrant part of our forests, loved by the canopy feeding hummingbirds we hoped to study. Outside the car, bird calls were tantalising and loud. The sounds of the Rufous Breasted Wren (*Thryothorus rutilus*), the Little Tinamou (*Crypturellus soui*), the Bearded Bellbird (*Procnias averano*), the Orange Winged and Blue Headed Parrots (*Amazona amazonica* and *Pionus menstruus*) all lent an air of exotic mystery. But visibility remained low throughout the day. So many of those exotic mysteries remained unsolved!

We went down Las Lapas Trace. Even in the darkness the tall forest was as spectacularly beautiful as ever. An army ant swarm was in progress down the side of the slope below the trail on the left. There were lots of birds, and we stood there for at least half hour trying to identify them in the poor light. Most of them appeared to be Plain Brown Woodcreepers (*Dendrocincla fuliginosa*). A few of these were curious and came closer to investigate us. There may also have other woodcreepers and tanagers there. But the Black Faced Antthrush (*Formicarius analis*) was calling from the periphery of the swarm. Selwyn Gomes and Clayton knew this call well, and imitated it for about fifteen minutes before we first caught sight of the bird.

This frustrating wait proved to be the most rewarding event of the trip. The Antthrush, which I then saw for the first time, walked up close to me, apparently not too concerned by my presence. His orange undertail coverts were like a flag on the stern of a ship, bobbing up jauntily as he busily made his way around the bare forest floor in short silent spurts.

We are still arguing about the dark headed flycatcher who whistled at us for awhile. The White Throated Spadebill (*Platyrinchus mystaceus*) appeared and disappeared too fast, as they usually do. We identified a bird that hovered above us as *definitely a hummingbird*. Well, a rainy day's birding, but a beautiful day in a neotropical forest.

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EDITOR'S NOTE

The field trip report for January was not submitted within the deadline and as a result will not published. Mr. Johnson was on leave and unavailable to collaborate with the production of the photos plates for the botany trip to Catshill Forest in time for the last issue.

ENVIRONMENAL NOTICES

Training opportunity via COPE

Training in Environmental Impact Assessment (EIA) evaluations has been arranged with bpTT sponsorship and UNDP administration for members of COPE. The training is currently planned as 4 weekend sessions at different live-in venues commencing on Friday night and ending Sunday afternoon during which the numerous aspects of EIA evaluation will be explained and related to local conditions.

EIA evaluation is an important responsibility for the environmental NGO community, particularly in today's current situation of fast-pace developments, and the relevant authorities charged with approvals under the EMA do not presently get adequate feedback from EnNGO's. Attendees at the sessions will be evaluated at the end of the course and receive a Certificate of Attendance if they have achieved 90% attendance.

It is hoped by utilising this generous assistance from bpTT that a pool of better qualified people will become available to attend consultations and perform qualified evaluations of EIA's.

Persons interested in attending please contact Shane Ballah, Carrall Alexander, or Reg Potter."

BOOK REVIEW

LIFE IS BUT A DREAM

Brent Wilson 2005. *Living on an Arc.* St Augustine: Publ. by author 310 pp. About $150. ISBN 1-4116-5413-7.
[Fourth in a series of "naturalist-in" books.]

Brent Wilson grew up in the unglamorous, polluted Yorkshire town of Huddersfield, a milieu from which he very much wanted to escape. In 1989, with a degree in geology, he looked for far-away possibilities and found that the best available was as a teacher with the Voluntary Service Overseas (VSO), the British counterpart of the American Peace Corps and the Canadian CUSO. Expecting to be sent to Africa, he was surprised to find himself posted as a high-school teacher to Nevis, a sharp change from the "Badde Olde Days" in England.

This is the account of his six years on Nevis. It is a story of almost unremitting culture shock, of joys and disappointments, told with grand humour. There are plenty of colourful characters and hilarious events, rather like in Gerald Durrell's books about his childhood in Greece. It even includes a girlfriend who drove the author to drink. Literally. Some of the people mentioned in the book are provided with pseudonyms, for reasons that are not always plain to me. Among these is the beekeeper Roger, known as Honeyman. In fact, this is my dear friend Quentin Henderson, known familiarly on Nevis as Beeman.

The book opens with a scene of British expatriates in Nevis, sitting on a porch at nightfall, drinking and reminiscing about how grand England is. Coming from Huddersfield, it is an England that Wilson does not recognize. (Let me mention here that the very concept of an expatriate strikes me as alternately absurd and pathetic, and I personally take care never to be mistaken for such a misfit. Just so you know.) At the same time, during a visit to England after two years he felt out of place in his old environment. And he knew that he had gone native on Nevis when he found himself asking new arrivals the same sorts of things the locals would ask. Even so, he remained in large part an outsider and, as such, was in a good position to observe how Nevisians see themselves within the federation of St Kitts & Nevis and in the larger scheme of things. I find his remarks on this topic especially valuable.

Nevis is a lovely place with an extremely thin economic base, a major part of which is remittances from emigrants. This factor unavoidably affects the Nevisians' view of their place in the world. Feral donkeys and vervet monkeys -- the latter also introduced into St Kitts, Montserrat and Barbados -- are all over the island and have become major agricultural pests.

In addition, there is a fine sense of history and much attention to historical artefacts, something that is generally lacking in the West Indies. The most West-Indian feature of the whole story, I find, is Wilson's frequent visits to the overgrown grave of Phillippa Prentissa Phillips (1650-1669), discovered by accident on one of his excursions.

One of the great shocks in his six years was Hurricane Hugo, who hit Nevis with full force very soon after Wilson's arrival. This occurred after the start of the school term, but before teaching had started, if you see what I mean. Hugo knocked out the electricity and water supply for some months, so that it took three weeks for the schools to re-open. Even then, classes were only in the morning for a while. Wilson took this as an opportunity to put his specialist education to work by making the first detailed geological map of the Saddle Hill Eruptive Centre, a 6km^2 volcanic mount at the south end of the island.

Returning from one especially demanding field excursion, he remarks, he "looked ... like a scarecrow who had been dragged backward through an acacia hedge by a herd of donkeys whipped

on by wild monkeys." The characterization of his looks is relevant, because the thing that Wilson most regretted about life on Nevis was his celibate condition. There are numerous references to his attempts to change his status, which finally came to a gloriously successful result.

This is not a naturalist-in book of the usual type, as it is only in small part about natural history. Most of this is about the geological survey of Saddle Hill and studies of foraminifera.

Foraminifera are protozoans of the group Sarcomastigophora, comprising about 4000 living species ranging in length from about 1/10 to about 20mm. You can think of them as amoebae with hard shells. They are found in all marine environments, where they may be planktonic or benthic.

It is their shells that set foraminiferans apart from other protozoans. These have a species-characteristic form and are extremely durable, so that one can identify species long after the cellular matter is gone. Together with their diversity and great abundance, these have given foraminiferans a rich fossil record from the Cambrian period to the present, with their greatest diversity in the Cretaceous period from 146 to 65 million years ago. Such a fossil record is good for more than just reconstructing past species assemblages. Foraminiferan shells are rather like pollen grains. They form durable layers that can provide the key evidence of climate in the distant past, among other things. That is, by relating the conditions in which particular living foraminifera are found, one can make inferences about conditions under which their extinct close relatives lived at particular times and places.

Brent Wilson is now a lecturer in the Faculty of Engineering at UWI, where he continues to makes sense of foraminifera. *Living on an Arc* is in the UWI bookstore and possibly some others in Trinidad, also available from Amazon and Barnes & Noble or through http://www.lulu.com/content/172820.

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EDITORIAL

OUR GEOGRAPHIC MANDATE

Plants and animals do not take note of national boundaries, and neither must we in our capacity as naturalists. This much has been at last tacitly understood throughout the 115-year history of our club. At the same time, we are not equally concerned with all parts of the globe, so that it is only natural that most of our focus is close to home.

It is the policy of this bulletin – and, we hope, of the Club as a whole – that no part of this magnificent archipelago known as the West Indies is foreign to us. Just as the people of these islands have a shared history and are in a very real sense one people, so the plants and animals and ecosystems enjoy a substantial commonality. Accordingly, we welcome material relating to the natural history of all parts of the West Indies from the Trinity Hills to Pinar del Rìo, with the Bahamas thrown into the mix.

And this by no means suggests the Club is indifferent to other regions, as a glance through recent issue will show. In particular, if you have observations or commentary from the mainland Greater Caribbean, your editors would like to hear from you.

Christopher K. Starr
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MANAGEMENT NOTICES

SPECIAL THANKS

The Library has received four publications:

- The Glasgow Naturalist 2004
- Marine Turtle Newsletter – January 2006
- The Ottawa Field Naturalists' Club Trail & Landscape - March 2006

Thanks to **John and Margaret Cooper** for donating:

- World Pheasant Association (WPA) International Newsletter No. 76 – Winter 2006
- Leaflet on Avian Influenza precautions and procedures – Poultry Surveillance Unit, Ministry of Agriculture.

Special thanks also to **Paul Greenhall** for the donation of a data logger that records temperature and light intensity

EACH ONE, BRING ONE

Members are encouraged to bring a friend or two to be part of our Club – their knowledge, talents and skills would be most welcome.

A HOME FOR THE TTFNC

We are seeking a permanent location to conduct our business and house our historic records and materials. Please contact the Management Committee if you can be of assistance.

THE HORTICULTURAL SOCIETY FLOWER SHOW

On the
25th and 26th March 2006
Help needed to mount a display and man booth.

THE GREENHALL TRUST

Started in 2005, in memory of Elizabeth and Arthur Greenhall, dedicated artist and zoologist respectively, the Trust offers financial assistance to aspiring artists and biologists (in the areas of flora and fauna) in Trinidad & Tobago.

Full details about the Trust are available at their website:
http://www235.pair.com/greenhal/home.htm

WELCOME NEW MEMBERS

Valarie Thurab
Gerard Chan Chow
Andrew Chan Chow (Junior)
Roger Mew
Herman Lucian Bernard
Michael Bobb

PUBLICATIONS

- The 2005 issue of the Living World Journal has been published. Please collect your copy at the next monthly meeting.
- The 2nd Edition of the Native Trees of Trinidad and Tobago is available at $TT100.00 per copy for members
- Issues of the Living World Journal from 1892-1896 are now available on CD.
- The revised Trail Guide is due to be published by mid-2006.

Trinidad and Tobago Field Naturalists' Club
P.O. Box 642, Port of Spain, Trinidad and Tobago

MANAGEMENT NOTICES (cont'd)

TTFNC'S RESPONSIBILITY TO THE NATION'S STEWARDSHIP OF THE ENVIRONMENT

Volunteers needed… on important Environmental Issues. Please let us have your opinion. Extract from the Vice President's article in January-March 2005 Quarterly Bulletin – "Members who have views on this, particularly members willing to contribute their time and skills toward the cause they advocate, should contact the Management Committee and let them know what practical actions they feel should be taken toward this aspect of our club's objectives."

The **TTFNC** has been invited by the Ministry of Works and Transport to make an input regarding Development and Regulation of Hazardous Material Road Transport. Please contact Club for copy of letter.

Your 2006 Annual Membership Fees are Due!!

Please view bottom right of the mailing label to check if your subscription has been paid.

NOTES TO CONTRIBUTORS

Guidelines for Articles and Field trip reports:

Font Type: Times New Roman
Font Size: 12 point
Maximum Length: 1,750 words (approx. 3 pages unformatted)
Photos: JPEG files only

Submit to any of the following: 1) jo_annesewlal@yahoo.com 2) ttfnc@wow.net.tt, or any member of the Management Committee.

Deadline for submission of articles for the 2nd Quarter 2006 issue of the Bulletin is June 1st, 2006. Please note that all field trip reports for this quarter must be in by the deadline, with the exception of the May report.