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The Club's Turtle Project - How it all began

Ian Lambie

In early 1963, Vincent Otero, a customs clerk, reported to the port office that two rolls of 8mm movie film which he had sent for processing in the UK some months before had not been returned. He sought my advice on what other steps should be taken to recover the film (these were the days before video cameras). I enquired of Otero what was on the film and he related a most unusual story. He said that he and a group of friends regularly visited the Matura Beach on weekends where leatherback turtles came up to lay. Poachers on the beach killed the turtles and Otero and his friends would push the remains of the carcass out to sea and would then retire "to bed". When they awoke in the morning there would be sharks feeding on the turtle carcasses and Otero and his friends would then shoot the sharks with their harpoon guns. I was amazed at this fascinating story and at the next meeting of the Trinidad Field Naturalists' Club I related what had been told to me.

The report generated great interest among the membership and it was decided that the Club should visit the Matura Beach in order to investigate the report of leatherback turtles being slaughtered on the beach.

Later in the year, possibly at full moon in July or August 1963 (refer to club minutes for date), a large group of persons including club members and students of the University of the West Indies, who had been invited by Peter Bacon using the directions provided by Otero, travelled to Orosco Road in Matura (at that time it was believed that turtles came to the beaches to lay only on moonlit nights). It was also believed that the young hatchlings emerged during the first peal of thunder in November. Unfortunately we had not previously reconnoitred the area and, in the darkness, were unable to find the turn-off from Orosco Road to the beach. The present road to the beach was constructed in the early 1990's.

Many left in frustration but a few determined persons travelled further north along the Toco Road until they reached the northern end of the Matura Beach now known as Rincon. After a short walk through the coconuts we arrived on the beach where we soon encountered our first leatherback turtle.

During 1964, Club members continued to visit Matura Beach on moonlit nights in search of turtles and there were a few successful sightings. As interest in the turtles increased among Club members, one member, Ernest Jackson who had worked in Malaysia told us that there was an on-going Turtle Conservation Project

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organised by the University of Malaysia (Ernest Jackson was in Trinidad to set up the Sissons Paint Factory). The Club wrote to the University of Malaysia and received information about its Turtle Conservation Project. Professor Hendrickson of the University of Malaysia was the leader of this Project which included the protection and relocation of nests, recording the number of eggs in each nest and the hatching success of each batch of eggs.

In 1965 Mr. Peter Bacon (before receiving his Ph.D) was appointed co-ordinator of the club's Turtle Project. Beach patrols were conducted on the Matura Beach, at Fishing Pond and at Las Cuevas, and after receiving tagging equipment from the University of Florida in Gainsville a Turtle Tagging Project commenced during the turtle nesting season of 1970, under the direction of Peter Bacon. The cording forms were designed by Dr. Bacon. In the mid-1970's beach patrols were also conducted at Grand Tacarib.

In May 1973, the Club submitted a report prepared by Dr. Bacon, entitled "The Status of Sea Turtles in Trinidad and Tobago" to the Minister of Agriculture, Lands and Fisheries. This report was based on the more than six years of investigation and study by the Club and resulted in the amendment of the existing Turtle Conservation Laws. By Act 23 of 1975 issued as Government Notice No. 119 of 8th September 1975, the 1975 Amendment to the Turtle and Turtle Eggs Regulation was issued. By 1980, 330 leatherback turtles were tagged. Other species of turtles were also encountered. Unfortunately these records, which are still in the possession of the Club, were never published. The Turtle Tagging Project was one of the most successful projects of the Club and most if not all Club members actively participated in it. However the project was discontinued in 1981. Since then other groups, having an interest in turtles and turtle conservation, have emerged, while the early pioneering work of the Field Naturalists' Club has been forgotten.

While I may be saddened that the TTFNC did not carry on with the Project after 1981, I am pleased that other organisations have taken up from where we left off. I note that many persons now consider that the regulations are inadequate and are suggesting that they be amended for the preservation of this important renewable natural resource.

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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.

Spelunking Anyone?

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Many conversations between us about Sanderson's cave and its interesting fauna, as well as field trips with the Club to some of the more well-known caves in the country were the inspiration for this article. But what do we really know about caves, in particular those found in Trinidad? This article aims to briefly introduce the world of caves and their exploration, commonly referred to as "spelunking".

First of all the term "spelunking" is used to define the exploration of caves and is considered the recreational companion of speleology[2]. Speleology is defined as the study of caves. It is a composite science based on geology, hydrology, biology and archaeology[3]. Modern cave science or speleology is barely 150 years old[1] and incorporates much mapmaking and surveying. Modern speleology started with Adolf Schmidl and Edouard Martel. So obviously a person who studies caves would be known as a speleologist, right? Wrong. Cave explorers are placed into three main groups; spelunker, speleologist and caver. Spelunker is a term used to describe a person who is untrained and not knowledgeable in the cave exploration techniques. A speleologist aims to collect data, be it in the form of maps, reports, drawings or photos. However cavers are in the middle in that they are primarily interested in the recreational aspect of exploring caves, but they are knowledgeable in current cave exploration techniques. They are also familiar with the technical aspects such as surveying, mapping and photography. One of the obvious attractions of caving is the potential of discovering a new cave or finding new extensions to already known ones.

Out of the five cave types found in the world, Trinidad and Tobago has two. The first type is the solution or karst caves, which are formed by water running off non-soluble rock and eroding soluble carbonate rock like limestone and gypsum. Most of the caves found in Trinidad are of this type. Examples of such caves include Tamana, Soho, Cumaca and the Aripo Main Cave. The second type is the sea cave also called latoral cave are found mostly in sandstone as well as limestone formations. These caves are commonly seen along the coast of the small offshore islands like Monos if one takes the ferry to Tobago.

Some of the common formations one would see in a cave are speleothems. These are mineral deposits formed mainly when calcium carbonate precipitates from drips or thin films of water. Two common speleothems seen are stalactites and stalagmites. Stalactites hang down from the roof or wall of a cave like icicles while stalagmites project upwards from the cave floor.

Caves are home to animals that have adapted to this environment. Since plants do not grow in darkness, nearly all food comes from outside, with most cave animals being scavengers[1]. The animals are classified into four groups; cave accidentals, trogloxenes, troglophiles and troglobites. Cave accidentals are animals that have become trapped or disorientated in the darkness. They cannot survive for a long period in this environment and would starve very fast. Examples of these include the so-called luminous lizard *Proctoporus shrevei*. Trogloxenes (cave users) occasionally visit caves and these visits may even be part of their life, but not to obtain food. Examples include bats like the fruit-eating bat *Carollia perspicillata*. Troglophiles (cave lovers) are animals that are equally comfortable living and finding food both inside and outsides caves, for example, the cockroach *Eublaberus posticus*. Finally troglobites (cave dwellers) have completely adapted to life in caves. Examples of such animals are oilbirds (*Steatornis caripensis*).

In terms of equipment it is best to invest in a headlamp in addition to a flashlight. The obvious benefits of this are that it leaves the hands free for climbing and balance. It is always a good practice to carry a change of clothes since some caves are located near rivers, or may have a

river flowing out of it, for example, Cumaca Cave. Because, let's face it, no one likes a person covered in guano.

Although exciting, one must also consider the hazards involved with speleology, such as, flooding, rock instability, falls, getting stuck or lost, light failure and exhaustion. Where a river flows out of a cave as in Cumaca cave, one has to approach the water source with caution. Caving can be quite a strenuous activity depending on the route taken getting to and from the cave, as well as the length of the cave. It should also be noted that caves may be simple or a complex network of caverns and passages, the roofs of which may break to form vents. These are dangerous, so when in the vicinity of a cave look out for small holes as they may be vents leading to a drop of over 6m. Another safety precaution is letting someone know where you are going and your expected time of arrival back. If the cave is on private property, obtain permission from the owner before visiting the cave. One should never enter a cave alone, and it is best to go with experienced cavers. Also carry back-up light sources; do not depend on one flashlight or a headlamp.

Exploring the interior of caves is very different from hiking on a trail, in that the surfaces are seldom level and often littered with large rocks. Navigation is another difficulty because one does not have the advantage of landmarks to orient oneself.

One also has to be aware of loose rocks that might shift when stepped on or fall on the person below you. On the way out remember that the cave may look completely different from the way it looked on the way in. So it is a good practice to frequently look back the way you came so that you can recognize the passage when it is time to leave. It is not a good practice to litter or mark the cave. Blaze marks are acceptable when in the bush but not in caves as you would be damaging speleothems that took thousands of years to form.

Are these trips the beginning of a speleology group?

Acknowledgments:
Many thanks to Carrall Alexander who reviewed our article for geological accuracy.

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[1]http://www.cancaver.ca/docs/cave.htm
[2]http://wrgis.wr.usgs.gov/docs/parks/cave/#types
[3] http://members.socket.net/~joschaper/wscience.html

A Possible test of a Biogeographic Rule

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Recently in these pages (No. 2/2005, page 4), Chris Starr reported that there are 37 species of social wasps in the whole of Trinidad and 24 in an area of about 1 $km^{½}$ around his home, noting that the predicted number in this latter area is about three. He offers an explanation which seems reasonable enough, but I would like to suggest another explanation that may be a different way of expressing the same idea. The boundary of his 1 km^2 home area bears no relation to the boundary of Trinidad and is freely passed by the wasps. A better comparison would be with a 1 km^2 island. Let me draw your attention to Gaspar Grande, near the tip of the Chaguaramas Peninsula. At 134 hectares (de Verteuil 2002), or 1.34 km^2, it is only slightly larger than Chris's home area. If one were to thoroughly collect social wasps on Gaspar Grande, he could expect to find only about three and certainly far fewer than 24.

In the case of snakes the rule of thumb seems to hold well. There are 44 species of snake in Trinidad (Boos 2001). We should, therefore, expect about four species for Gaspar Grande. So far, four have been positively identified with a fifth possibly present (Boos and Quesnel 1993).

To encourage Chris in testing this proposition, I suggest that the Club make this an official project and schedule a field trip there next year.

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SPIDER COLLECTING AT NIGHT

Jo-Anne Nina Sewlal

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The night time contains a different ambiance filled with different species of animals all leading a different lifestyle. Night time observation of animals is also a different experience compared to daytime observation. One of these differences is one's attention to details. Let's take the crevices found in cliffs as an example of a microhabitat. During the night with the aid of a flashlight one focuses on the small area of light and the details that it shows. In the daytime one is able to see the same rock face and its surroundings with ease. But, just as it is easier to note details it is also easier to get distracted by another section of the microhabitat, or the trail, a passing animal or an insect flying by.

Out of all the animals, my personal favourite to observe and collect are spiders. Spider collecting at night ….. what a crazy notion. But nocturnal spider hunting has its advantages. One obvious advantage is that it is much cooler, so one tends to concentrate on looking for spiders than a shaded spot. Another benefit is that it allows one to view the species not seen during the day, such as some species of web-building spiders. One has to remember that most animals are cryptic, to avoid detection by predators. Therefore the key to nocturnal spider hunting is to know where to look. Spiders are no exception, with most species being dull in colour to blend in with rocks, leaf litter or bark. An example of a cryptic spider is *Scytodes* sp. (or spitting spider). These nocturnal spiders are quite common along the small crevices and pockets in the cliffs along the trails on Mt. St. Benedict, where they hang upside down from the rocks. This is consistent with information that this genus is found in rock crevices.

Most important is the use of a headlamp or a portable flashlight. Although the latter serves the same purpose, the headlamp frees the hands to turn over rocks and logs. The headlamp also aids in detecting wolf spiders whose large eyes reflect the light. But this method of looking for spiders has its disadvantages in that at night one has to be careful in judging the terrain. One should also acknowledge the lack of visible landmarks which makes nocturnal collecting difficult. Keeping this in mind, one should proceed slowly rather than rushing and risking injury or getting lost. One also has to be on the alert for inconspicuous snakes like mapepires (Viperidae) which can be curled up at the sides of trails or next to logs and rocks. Another precaution to follow would be to go with a group or a person who knows the trail well. It should be noted that these concepts do not only apply to collecting spiders, but any nocturnal species of animal.

Bird Observations

Hans E.A. Boos

12 Blue Basin Gardens, Diego Martin

When I moved into my present house in Blue Basin Gardens one of the first things I had to do was to accommodate the nesting of a House Wren, *Troglodytes aedon* who had set up her nest in a blocked-up ventilation brick over my bedroom door. Every time I opened the grillwork of the burglar proofing she would fly off complaining bitterly in her characteristic rattling call. And she would sit on the fence and chastise me until I left.

The next encounter, a couple of years later, was at dusk when I heard the complaints of a wren from the property next door, and they continued into the darkness as night fell. I went to investigate and as I shone a flashlight beam into the mango tree where I could still hear the wren complaining, I saw the characteristic eye shine of a tree boa *Corallus rauschenbergeri*. I could easily pick out the shining coils along the narrow branch hanging over my yard. It was with little effort that I threaded a snake tongs into the branches and captured the snake. There was a distinct bulge in the belly of the snake, and I had little doubt that the snake had made a meal of either nestlings of the wren or its mate. But I recall the bulge was a little larger than I'd expect for a wren's little body to make after being swallowed.

Saltator (left) being fed by wren (right)
Photo by Hans Boos

This year in August, I heard the begging cries of a baby bird outside my kitchen door. There, I had grown a large hot-pepper bush, and when I looked out over the bottom half of the Dutch door, I saw what appeared to be a juvenile Grayish Saltator, *Saltator coerulescens*, fluttering its wings and mouth gaping in the typical manner of a young bird expecting to be fed by the parent. To my surprise it was a wren, one-third the size of the youngster, which flew in and placed some food into the gaping orange bill of the saltator. I hurried to get my camera but by the time I had arranged the lenses to ensure I got a photograph at some distance, they were gone. But I could hear the juvenile calling and the wrens' rattling calls some distance off and when I followed, I could see what appeared to be both parents continuing the feeding, but every time I came within range to get a photograph, they would become spooked and fly off.

For about six days, by listening for the calls, I monitored this behaviour, never getting the opportunity to capture them on film, until one day, I heard them across the road near a neighbour's house, and I saw the saltator sitting on the garbage basket hung on the fence and I saw the wrens foraging on the ground nearby and flying up to the young bird and feeding it a succession of possibly small insects they were collecting at the base of the wall. Grabbing my camera, and hiding behind the wall in my yard, I managed to get two or three pictures of this phenomenon, but at the furthest capacity of the 200mm telephoto lens. However in the resulting photo this event can be clearly seen. ffrench (1980) states that the Glossy Cowbird, *Molothus bonairensis*, is a brood parasite of the wrens, but it has not been recorded that the Grayish Saltator is such a parasite on the House Wren, but these photos and my observations certainly call for further observations.

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HAROLD SKINNER (1917-2004), LEPIDOPTERIST

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The amateur entomologist Harold Skinner was born in Port of Spain, but moved at an early age to Venezuela, where he remained for the rest of his life. During much of his life he worked in petroleum exploration for an oil company, a job that took him to many parts of Venezuela. Skinner and his family lived in various parts of Venezuela over the decades, finally settling on the island of Margarita.

As you may have noticed, amateur taxonomists, especially entomologists, are often to be found in lines of work that require them to travel a great deal, so that they have ample opportunity to spend their leisure hours collecting specimens in novel localities. So it was with Skinner, who early developed a keen interest in butterflies. At first he collected them mostly just as pretty objects, without any particular scientific objective, but in time his focus and his growing collection became more serious.

While it was a substantial reference collection, consulted by many Venezuelan and foreign lepidopterists, Skinner was also determined that it should serve a wider educational purpose. Accordingly, he made it accessible to the public and often took parts of it on tour to schools. I very much regret that on my one visit to Margarita I let the opportunity pass without taking the time to meet Harold Skinner. The collection is reported to continue under the supervision of his wife and their two children. Much of the information for this notice is derived from an article by Venezuelan entomologist Jorge M. González (2004), who did know Skinner personally.

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FIELD TRIP REPORTS

Grande Tacaribe - 27-28 August 2005
Monique Konings

Sixteen people attended this weekend overnight camp in Grande Tacaribe. We assembled and headed for Blanchisseuse where everyone and everything went into a boat. The boat ride took us along the beautiful coastline. Coconut trees, sea grapes, almond trees and royal palms could be seen. There was a little island where we passed, where the Caribbean Martin (*Progne dominicensis*) was spotted and also swifts (A*pus apus*), common vultures (*Cathartidae*) and the Red headed Turkey Vulture (*Cathartes aura*).

We arrived on the large, beautiful Grand Tacaribe beach after 45 minutes where we erected our tents. There were others camping on the beach, one group of young people had already built their camp. On the beach were signs of turtle nesting activities everywhere. Tracks of one type of turtle could be seen. These were the leatherback turtles and also some hatchlings. Sea grapes were spotted and different species of *Heliconia* could be seen, like *Heliconia psittacorum* and *H. bihai*. Also different kinds of lianes were seen. The Saturday was spent relaxing and bathing and at night there was a cook-up.

A view from Tacaribe beach.
Photo by Monique Konings

Early next morning people started to walk around and spotted fish river ale in the small pools nearby the camp and someone spotted the toad *Bufo marinus*. Also crawfish and river lobster were spotted. The Mountain Mullet (A*gonostomus monticola*) was seen. We heard the call of the Channel-billed Toucan (*Ramphastos vitellinus*). The Green Honeycreeper (*Chlorophanes spiza*) and Lineated Woodpecker (*Drycopus lineatus*) were seen.

There was a hike planned to Madamas River and before we went on this hike, fresh fish broth was made (in "Bobby's Hilton") and it tasted delicious! Not everybody went on the trip. Some stayed at the camp to relax, fish and snorkel.

The hike went first a little bit uphill and there was a little wooden house where we could view the sea and we saw different kinds of trees and plants. The mammee apple (*Mammea americana*)was seen, where the fruit is large and with orange flesh and edible, and the roucou (B*ixa orellana*) which is a plant from which pulp surrounding seeds gives a red dye which can be used for protecting the skin from insects. The seeds from the Castor Bean plant (*Ricinus communis*) are poisonous to people, animals and insects. Soursop (*Annona muricata*), sapodilla (*Manilkara zapota*), paw paw (*Carica papaya*), cassava (*Manihot esculenta*), the seaside or Indian Almond (*Terminalia catappa*), Combretaceae, breadfruit (*Artocarpus communis*) and mammee apple where the large, orange, egg-shaped fruit can be 1 or 2 seeded and it is edible were all seen.

We continued our trip on a good walkable path. On our way, different species of the *Heliconia* were spotted, also a twirled version, Sea grapes (*Coccoloba uvifera*), *Costus barbatus* (belongs to ginger family) and the national flower chaconia (*Warszewiczia coccinea*) which belongs to the family Rubiaceae was seen. On our way through the beautiful forest, royal palms

(*Roystonea regia*) could be seen, mango trees (*Mangifera indica*), cacao trees (*Theobroma cacao*) and cannonball trees (*Couroupita guianensis*).

We arrived at the Madamas River, where the water was clear and cold. It was good to swim and everybody relaxed in the fresh water. Birds could be seen, Brown Pelicans (*Pelecanus occidentalis*) and three different species of shorebirds, like the Least Sandpipers (*Calidris minutilla*). We hiked back to the camp, where we cleaned and got ready to go back to the boat. It was a lovely weekend and everybody enjoyed it a lot.

Bird Group trip - Cumana
September 11th 2005

Feroze Omardeen

The inimitable Courtenay Rooks led an enthusiastic group of nine to Cumana, Toco for birding. The day started with spectacular telescopic views of two Channel Billed Toucans (*Ramphastos vittelinus*) on a bamboo patch on the side of the main the road in Matura. Memorable features were the bright red rump and the continuous yelping calls. Crossing the Matura River, a pair of Yellow Headed Caracaras (*Milvago chimachima*) watched over their adolescent offspring, while the Semipalmated Sandpiper (*Calidris pusilla*) combed the riverbanks.

On reaching the Tompire River, there is a small shop on the southern side. We turned left at the shop driving into a road that parallels the river, and leads into cocoa estates. Stopping after 183m in an open grazing area, we again got beautiful telescopic views of a Gray Hawk (*Buteo nitidus*), imperiously and contemptuously glaring at us over his right shoulder. Someone's keen eyes spotted a red patch bobbing on a nearby topless coconut trunk. The red patch quickly became a male of the uncommon crimson crested woodpecker (*Campephilus melanoleucus*), and the group revised the distinguishing features from the commoner *Dryocopus lineatus*.

We parked the cars about a mile from the main road. From the first vantage point, overlooking a steep drop to the river, the pygmy owl call attracted a large variety of birds. The telescope afforded brilliant views of the Rufous Tailed Jacamar (*Galbula ruficauda*); hunting from a tree trunk over the river, but the trogons flew across our view too quickly for identification. Viloaceous euphonias, honeycreepers, flocks of turquoise tanagers surveyed us closely to see if she was indeed an oversized pygmy owl. A Squirrel Cuckoo (*Piaya canana*) and a Common Black Hawk (*Buteogallus anthracinus*) made cameo appearances.

But it was flycatcher day in Cumana. The Tyrant Flycatchers are the largest New World family. Smaller flycatchers are the bane of us inexperienced birders, difficult to find, and difficult to identify when finally encountered. According to Murphy (2004), they fall into two groups; those very easy to identify, and those almost impossible to identify.

The first to appear was a Southern Beardless Tyrannulet (*Camptostoma obsoletum*), dancing on an open branch. Its behaviour was almost as silly as its name. (After a short debate, we established that there was no such thing as a Southern *Bearded* Tyrannulet, but there is a *Northern* Beardless Tyrannulet). *Camptostoma obsoletum* looks exactly like a small Yellow-Bellied Elaenia (Hilty 2003), with a similar little crest (a "bad hair-do") but is far more active and excitable with a twitching tail. Soon, directly above at about 15m among the gnatwrens and tanagers, appeared the uncommon White Winged Becard (*Pachyramphus polychopterus*). We were staring at a rowdy bunch of birds in the canopy above. Suddenly everyone's neck began to hurt simultaneously from looking straight up! Courtenay explained that the little birds would naturally take a strategic position directly above the pygmy owl.

As we walked on through the estate road, a solitary small flycatcher was spotted in the dim undergrowth next to a cocoa tree a few feet off the ground. In contrast to the tyrannulet, he was well behaved, and sallied off now and then in a more sober flycatcher fashion. We identified him as Euler's flycatcher (*Empidonax euleri*). An Ochre Bellied Flycatcher (*Mionectes oleaginea*) responded to the pygmy owl call 183m up the trail. Among the other Tyrannidae seen on the trip were the Piratic Flycatcher (*Legatus leucophaius*), the Boat Billed Flycatcher (*Megarhynchus pitangua*) and the Forest Elenia (*Myiopagis gaimardii*).

Although I focused on the flycatchers, many families were there in abundance. Both species of manakins chirruped loudly, flitting about us. The Golden Fronted Greenlet (*Hylophilus aurantiifrons*) often investigated us. Numerous immature honeycreepers appeared to be growing up in the area.

Courtenay noted that the Toco/Cumana area was still an excellent area for eco/adventure tourism, as many of the cocoa estate roads were well kept, and led in to interesting bench trails through the low hills, ideal for trail biking. He showed us one of his favourite bike trails leading off from our road directly to our left. "But, Courtenay, where the trail? What trail??" we asked. However he insisted that it became recognizable later on.

We heard the Cravat! That is, the Trinidad Euphonia (*Euphonia trinitatis.)* I waited a full ten minutes hoping that it would appear in the canopy, but without luck. Curiously Courtenay suggested that early morning on the top of San Fernando Hill was the best place to see them. Also elusive were the two species of trogons who kept calling from behind the scene.

We encountered at least five hummingbird species, and were inspected by several hermits. But the star was the Blue Chinned Sapphire (*Chlorestes notatus*). He stopped to observe us from a nearby branch for about five minutes, perhaps mistaking us for large egrets. I asked Courtenay about field identification of this species, and he suggested that any small hummingbird that looks predominantly blue is almost certainly the Sapphire.

We drove on to Anglais Road, off Cumana. This road actually leads deep into the low hills of the northeast, through mostly secondary growth and cocoa. It is possible to drive by four wheeler right across to L'Anse Noir on the North Coast. I have taken smaller trails off this road to Big Bay, and there are trails branching from this road through the Grand Fond estate. It is an excellent road for birding, and a good, safe road for trekking and nature watching. By then it was 11.30 am and it seemed too hot for birds, so we stood under the cars telling bird stories. But before leaving, someone tried the jumbie bird call. To our astonishment, the place came alive. The Red Crowned Ant Tanager (*Habia rubica*) peeked out at us about 3m away, but disappeared too quickly for us to study him. Honeycreepers, tanagers, greenlets everywhere. The Streaked Xenops (*Xenops rutilans*) flitted about the tree above, acrobatically clinging upside down to the tiny branches. But what was that little white bellied bird with the dark head? This mysterious fellow was Courtenay's bird of the day; his best guess was a migrant Blackpoll Warbler (*Dendroica striata*) who arrived too early in the year.

Altogether we saw at least fifty species. For me, five new species. A fantastic trip!

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Moruga Bouffe – September 25th 2005
John Lum Young

Moruga Bouffe has some of the best developed mud volcano cones in Trinidad. Located in the Moruga East Oilfield in the deep south (about 8km due north of Canari Bay on the south coast) meant an interesting drive to get there. The extension of the Solomon Hochoy Highway to Golconda provided a quicker way to Moruga than via the more popular Tasker Road/Buen Intento/Matilda Junction.

Our route led through Picton, Monkey Town, Lower Barrackpore, Central Barrackpore, GP Junction, and the villages of Valley Line – No. 2, No. 3, No. 4, No. 5, No. 6 and No. 7 (all named after the sugarcane weighing scales along the train line to Usine St. Madeleine). Transport of canes by rail stopped after the 1997 crop. Caroni (1975) Limited, despite having stopped hauling cane via rail to Brechin Castle in 1976 and Woodford Lodge in 1979, took considerable longer to do so in Valley Line because Barrackpore had substantial cane acreage and a poor road network. So the company continued to maintain the aged and inefficient rail infrastructure.

Continuing past St. Mary's and the villages of Moruga – Cachipe, Rock River and Basseterre, we parked next to oil tank battery No. 4 off Edwards Trace. Reg Potter explained that the tanks were a gathering station for surrounding land wells which fed oil to these collecting tanks via 5cm pipes. An initial separation of oil and water took place here and the oil was then pumped via 10cm pipe to the main line that transported the crude to the refinery.

Proceeding uphill through balisier (*Heliconia* sp.), lastro and thick clumps of bamboo we entered Seasonal Evergreen Forest which included a number of interspersed palms – royal palm (*Roystonea oleracea*), cocorite (*Attalea maripa*), roseau (*Bactris* sp.), carat (*Sabal mauritiiformis*), thrash palm (*Attalea butyracea*) and the climbing palm vine camwell (*Desmoncus orthacanthos*) reaching into the canopy. It was hard to believe that the forest trail we followed was once a proper road accommodating the passage of trucks and other heavy oilfield equipment. With the closure of non productive wells (30 to 40 years ago) there was no longer the need to maintain the road and nature had fully reclaimed the artery except for the steel bridge over the Moruga River.

A close up of one of the cones.
Photo by Jo-Anne Sewlal

We turned away from the main trail to head to our first destination. Orange coloured ovoid fruits littered the ground. Dan Jaggernauth identified the fruits as being from the high climbing vine *Strychnos trinitensis* (family Loganiaceae). Passing through a thick stand of mora (*Mora excelsa*) we reached our first target - the Moruga silk cotton tree (*Ceiba pentandra*). Members gaped in awe at this giant of a specimen.

This *C. pentandra* was measured at a height of 56m (G. Wilkes et al. unpublished data) and girth of 10.3m (Lum Young et al. 2002). The girth is the circumference of the tree trunk above the buttresses, the supporting extension of the roots. This silk cotton has nine massive buttresses to support its giant trunk. The tallest one is 13m high. To give one an idea of the span of the spreading, plank-like buttresses, a hexagonal perimeter at 1.7m above the ground on the six most prominent buttresses measured 27.2m. The silk cotton inspires awe in some and fear in others. Legends abound about this tree which is reputed in local folklore to be a haven for jumbies and

frequented by practitioners of spiritism. The ancient Mayas considered it to be sacred and today the Maroons and Amerindians share that tradition[1].

Our next stop was Moruga Bouffe. Bouffe is a misspelling of the French word "bouffée" which means puff, gust, blast or whiff. Mud volcanoes are composed of sediment (mainly clay), saline water (with high levels of exchangeable sodium), gas (mainly methane) and minor oil scum (present at approximately 40% of Trinidad mud volcanoes) (Comeau 1993). Tassick is the term that describes the bare area surrounding the mud volcano (the term originated in Moluccas, Indonesia). A textural analysis of the mud at the tassick, by the BT 300 Class, the University of the West Indies, St. Augustine, found 11% sand, 38% silt and 51% clay. The high clay content makes it difficult for plants to survive and accordingly the area around the mud volcano vents are generally devoid of vegetation.

In addition to the high clay content, high salinities and high alkalinity influence the type of vegetation established. Large numbers of coastal plants were growing at the edge of the tassick even though the mud volcano was some distance inland. The writer picked leaves of the Seaside Purslane (*Sesuvium portulacastrum*) for the group to eat. They were pleasantly surprised by the salty taste. Tests by Higgins and Saunders (1974) gave the salt concentration for Moruga Bouffe as 45,373 parts per million. (Generally sea sand has a concentration of 33,000 ppm.)

Studies by Comeau (1993) identified other seaside plants at Moruga Bouffe such as white mangrove (*Laguncularia racemosa*), butterwood (*Diospyros inconstans*), the woody vine *Rhabdadenia biflora*, the sedge *Cyperus ligularis*, the legume *Entada polystachya* and the fern *Acrostichum danaefolium*. Other salt tolerant plants thrived at Moruga Bouffe including calabash (*Crescentia* sp.), black sage (*Cordia curassavica*), guaco (*Mikania micrantha*), koochape (*Coccoloba latifolia*), indigo berry (*Randia aculeata*), matapal (*Clusia rosea*), coco shat (*Solanum stramoniifolium*), the shrub *Erythroxylum ovatum* and the ferns *Nephrolepis biserrata* and *Polypodium piloselloides*, Even though rainfall dilutes the salt on the tassick, continuous venting maintains the high salt content. Once venting ceases however, vegetation quickly overruns the dormant site as in the case of Karamat Mud Volcano where the active vents have shifted some 200m further west and the old tassick was reclaimed by the vegetation in a few short years.

On the return we stopped at Debe for some Indian delicacies to top off a great day.

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[1]www.tropilab.com

Botany Group trip – Catshill Forest
October 15th 2005

Jo-Anne Nina Sewlal

This year's second botany trip was attended by 20 persons, including Carlisle MacMillan (T&T Orchid Society) and Mr. Winston Johnson (T&T Herbarium). Today's trip was to Catshill forest, located in south Trinidad near Rio Claro. This was once a busy area during the 1970's and

80's in the drilling for oil. After a brief talk from our group leader Nicholla Johnson we set off on our trip. Following the pipeline along a clear trail into the forest we saw hoof prints in the mud along the trail. These most likely belonged to bison which are used to pull logs out of the forest. However, no skid marks were seen to indicate that logging had recently taken place.

At the start of the walk Juanita Henry asked some members to look for jumbie beads (*Abrus precatorious*) for her. When questioned as to why she needed them, she noted that to prevent kerosene lamps from producing a lot of smoke when lit, one can place jumbie beads in the kerosene.

Trees seen included crappo (*Carapa guianensis*), which is the dominant species in some parts in Trinidad. This local name came about because as the tree matures its bark becomes rough and resembles the back of a toad. The patois word for frog is crapaud, hence the name. Besides being used for its timber, I was told by one member that the oil of the seeds are used to treat arthritis and colds. Another common tree seen was hogplum (*Spondias mombin*). Like crappo this tree is also of medicinal value, where I was told that the leaves have anaesthetic properties. Hogplum trees are also used as "living posts" to demarcate pasture land for cattle which in addition to getting shade also eat the fruit from the tree. Other common trees seen included wild chataigne (*Pachira insignis*), fineleaf (*Pentaclethra macroloba*), silk cotton (*Ceiba pentandra*) and *Clusia* sp.

Tirite (*Ischnosiphon arouma*) and *Monatagma spikatum* both of which were present are two understory plants which can be easily confused. The latter species has a ring of raised tissue around the petiole of the leaf approximately 2cm from the blade. Both plants produce flowers however, with *M. spikatum* they are found approximately in the middle of the flower stalk while in *I. arouma* they at the top. But when young both plants cannot be distinguished from each other since the ring and flowers have not developed as yet. Other understory plants seen included Hot Lips (*Psychotria tomentosa*) so called for its prominent scarlet bracts, the outline of which resembles a woman's lips. Grasses seen included *Olyra* sp.

Polygonum punctatum also called water smartweed, dotted smartweed and water pepper were seen. This is considered an emergent aquatic, that is, it is found in marsh, riverine and estuarine areas. It is regarded as a noxious weed or invasive in USA. It is also planted as a waterfowl food in USA. *Hygrophila costata* is also considered an invasive as well as a semi-aquatic weed. It thrives in shallow water, forming mats of dense growth at the merging of freshwater lakes and watercourses[2]. It is quite large and can grow to 1.5m in height. Its large leaves (18cm long and 3cm wide) are opposite in arrangement with prominent veins and midribs. This plant produces small white flowers and small pale brown seeds. These sticky seeds can attach themselves to wildlife or humans which aid in their dispersion. Another aquatic weed seen was *Ludwigia* sp.

Along the trail we saw evidence of a small fire which most likely occurred during the dry season. Other ill-effects to the environment seen included two mini oil spills which occur from leaks in pipes. Some of this oil also leaks into the streams that criss-cross the forest, as was also seen.

Three species of orchids were seen included *Scaphyglottis cuneata* with its tiny flowers and *Palmorchis pubescens*. The genus of the latter literally translates into "palm orchid"; because of the resemblance the leaves bear to Geonoma-like palms[1]. When young the orchid resembles a young coconut plant[2]. The flower has yellow sepals. The petals are also yellow with a white lip with red stripes[2].The jack spaniard orchid (*Gongora quinquinervis*) was also noted. This was to be expected as it is an extremely common plant in secondary forests (Kenny 1988). It gets its common name from its elongate and pendulous inflorescence which bears up to 50 flowers and which from afar resembles a twig lined with the paper wasp *Polistes* sp.

Bromeliads seen included *Tilansia anceps* and *Guzmania sanguinia*, the latter of which was identified by its leaves which formed a red rosette. Also seen was *Aechmea mertensii* whose leaf

margins were lined with 3mm spines. This species is also associated with ant nests. Finally there was the large *Vriesea amazonica* with leaves up to ½m in length.

Four species of palms were noted on this trip, two of which belonged to the genus *Bactris*, gri-gri (*Bactris setulosa*) and black roseau (*Bactris major*). The former, *B. setulosa* is the tallest native species of this genus in Trinidad (Comeau et al. 2003), reaching a height of 17m. Like *B. major* it also possess black spines, however they are on ridged nodes several centimetres apart along its annular trunk, whereas *B. major* has widely spaced rings up to 30cm apart (Comeau et al. 2003) . Carat palm (*Sabal mauritiiformis*) is a solitary palm. It is quickly identified by its fan-shaped leaves where the segments radiate from a central point. The petiole is continuous with the leaf to form a distinct midrib. The leaves are used by hunters to thatch the roofs of their shelters. However along the way we saw that modern hunters have opted to construct more permanent structures made of iron and steel. One of the climbing palms *Desmoncus orthacanthos* was also observed along the trail. This palm has 3-6cm long spines on the petiole and leaf rachis of its pinnate leaves. The bases of the bracts are also covered in short spines.

We saw leaves that were covered with orange galls about ½ cm in diameter. Galls this small are the physiological response to an interaction with insects, usually flies which deposit their eggs into the leaves. As a response to an attack a gall forms around the eggs, thus the plant is protected and so are the fly's eggs. Galls are not only restricted to leaves but can be found on trees. We were fortunate to see both. Galls formed usually on tree trunks are as a result of the tree's attempt to fight off an infection or virus.

About two hours into the walk we stopped for lunch and sampled a hunter man's nut (*Omphalea triandra*) of the family Euphorbiaceae. This nut grows on a vine and hunters eat them claiming that they give them energy. We also sampled a piece; the taste was similar to that of almonds. We also tasted pot (*Ottonia ovata*). This understory plant belongs to the family Piperaceae. This is the same family as black pepper. Most members confirmed this by a quick taste of the leaves. The overwhelming peppery taste was quickly dispelled with cookies provided by John Lum Young. However is not recommended that one eat any fruit belonging to Euphorbiaceae unless it is known to be edible. One member noted that hunters crush the leaves of this plant in water and bathe their dogs with it to clean their nostrils so that they may better track their game.

On the way back we noted the evergreen *Symphonia globulifera* commonly known as sweet water man or yellow mangue possesses stilt roots and could be mistaken for a mangrove. It is also present in Bush Bush and Aripo Savannas. The branches droop downwards giving it the appearance of a "weeping willow". It has small oblong, dark green and glossy leaves. The scarlet flowers are about 2cm in diameter and almost globular in appearance (Quesnel and Farrell 2000). This tree exudes yellow latex which can be burnt for illumination (Quesnel and Farrell 2000).

We ended our trip with watermelon courtesy of Nicholla Johnson our group leader and coconut water from Dan Jaggernauth.

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Kenny, J. 1988. Native orchids of the Eastern Caribbean. Macmillan Education Ltd. London. 58p.

[1]http://sobralia.autrevie.com/palmorchis_TheGenus.html

[2]http://ttorchid.net/db/see.php?View='View'&id=95

EDITOR'S NOTE

The field trip report for October was not submitted within the deadline and as a result will not published.

BOOK REVIEW

SPACE IS THE PLACE

W.H. Hudson 1892 (1988). *The Naturalist in La Plata.* New York: Dover 394 pp. ISBN 0-486-25740-1 US$9.00.
[Third in a series on "naturalist-in" books.]

William Henry Hudson (1841-1922) was born in Argentina of American parents. His early years on the Pampa are marvelously and evocatively recounted in *Far Away and Long Ago*, written in old age. At the age of 33, Hudson emigrated to England, where he remained for the rest of his life. As far as I know, he never clearly explained this extraordinary move, except to note that he had always regarded England as the place where he belonged.

It is unfortunate that Hudson is best known in this hemisphere as the author of *Green Mansions* -- a pleasant enough read, but, after all, nothing more than a novel -- as he was a substantial and important nature writer, drawing on both his time in Argentina and his later years in England. Among his most highly-regarded books are *Idle Days in Patagonia* and *A Hind in Richmond Park.* In addition, he was a conservation propagandist and organizer, a major force in the organization of the Royal Society for the Protection of Birds.

The Naturalist in La Plata treats the part of Argentina that Hudson knew best, the vast long-grass prairie known as the Pampa (or pampas). Although he does not say so, this book is plainly modeled on the first naturalist-in book of note, Gilbert White's *Natural History of Selborne* (1789).

In 24 chapters, Hudson treats a variety of topics in animal life and the life of particular animals. The most substantially original of these is "Biography of the Vizcacha", an all-around natural history of the most characteristic mammal of the Pampa, the group-living rodent *Lagostomus maximus*. Others are about such things as mimicry and warning colouration, mosquitoes and other parasites, bumble bees, hummingbirds, and my personal favourite, "The Mephitic Skunk".

I believe it was Joseph Conrad who exclaimed that Hudson wrote as naturally "as the grass grows." Conrad had evidently not seen Hudson's notebooks, in which he laboriously crafted his writings through many drafts. However, the final result does, indeed, come across as almost effortless, with the result that this and other books will continue to be read with ease and pleasure as long as nature and English are appreciated.

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MANAGEMENT NOTICES

NOTICE OF ANNUAL GENERAL MEETING

Dear Members,

You are hereby notified that the **ANNUAL GENERAL MEETING** of the **TRINIDAD AND TOBAGO FIELD NATURALISTS' CLUB** will be held on January 12, 2006 at the Audio-Visual Room, St. Mary's College, Frederick Street, Port of Spain from 5:30pm.

The Agenda is as follows:

1. Treasurer's Report
2. Adoption of Accounts
3. Committee Report by the President
4. Secretary's Report
5. Election of Officers and Members of the Committee for the year 2006
6. Appointment of Auditors
7. Any other business

Any members wishing to have any business discussed at this meeting may advise the Secretary in writing, at the address below, at least seven (7) days before the date of the meeting, giving particulars of the subject to be discussed.

The Secretary
c/o P.O. Box 642
Port of Spain.

Yours sincerely

Shane Ballah
Secretary
Trinidad and Tobago Field Naturalists' Club

THANK YOU!

To members who worked at the Orchid Show

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.

MANAGEMENT NOTICES (cont'd)

SPECIAL THANKS

To **Nora and Jack Jones** for the donations of five publications to our Library.

- The Birds of Trinidad & Tobago by G.A.C. Herklots
- Fishes of the Caribbean Reef by Ian F. Took
- Native Orchids of the Eastern Caribbean by Julian Kenny
- A Guide to Beaches and Bays of T&T by Institute of Marine Affairs
- Mariposas Diurnas de Venezuela by Jose Ramon, Alvarez Sierra and Jose Ramon Alvarez Corral

We are also grateful them for the following equipment:

- Memorex Model 19 9-inch colour TV/VCP
- Swift all sport 7 by 35 binoculars
- Minolta Pocket 10 by 25 binoculars
- Butterfly net
- Adobe Photoshop Element 2.0

Thanks also go out to **John and Margaret Cooper** for donating two publications to our Library.

- Studies on the Trinidad Piping Guan (Pawi)
- Annual Review of the World Pheasant Association 2004/2005

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.

- Reynold C. Boyce
- Alison Beale

ANNUAL GENERAL MEETING 2006

The Annual General Meeting of the TTFNC for 2006 will be held on **January 12th 2006**.

Please make every effort to attend. Formal notification will be sent to members.

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 end-2005.

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."

Annual Christmas Function

Venue: Laguna Mar
Date: Sunday 11th November 2005
Cost: $90. per person
Deadline for payment: Sunday 4th November 2005

Your 2005 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)

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 1st Quarter 2006 issue of the Bulletin is March 1st, 2006. Please note that all field trip reports for this quarter must be in by the deadline, with the exception of the February report.