



THE FIELD NATURALIST

Quarterly Bulletin of the Trinidad and Tobago Field Naturalists' Club

April - June

No. 2/2006

Thirty-two years of The Field Naturalist (A look back at the history of our quarterly bulletin)

Jo-Anne Nina Sewlal

Dep't of Life Sciences, University of the West Indies

On June 1973 the first issue of our quarterly bulletin "The Field Naturalist" came into existence. The idea was conceived by then secretary Kate Gibbs. It had very humble beginnings as four pages of legal size paper passed out at meetings four times a year. So its distribution was pretty much set from the start. These early bulletins would contain a summary of a selected lecture or field trip held during that quarter.

After Mrs. Gibb's return to England with her family in 1975, its production was passed on to the secretary in charge for that year. Persons entrusted with this job were Victor Quesnel, Luisa Zuniaga and Ian Lambie, who faithfully carried out this job for 20 years. It was not until 1993 that a person not attached to the management committee was appointed as editor. The first person to hold this position was Dr. Paul Comeau (1997 to 1998) followed by Rupert Mends (2001 to 2005). Fast forward 19 years and the layout resembles the bulletin of today, for which thanks goes to Calista Pierre.

The Field Naturalist has also been the outlet for the Club's creativity, featuring recipes, crossword puzzles, poetry and cartoons on environmental issues by Duston E. Williams, cartoonist for the Trinidad Guardian newspaper. Over the years some names had to be mentioned for their contributions to the development of the bulletin. One of which is Club stalwart and former editor of our journal "Living World" Dr. Victor Quesnel, who produced some of the first lecture summaries and field trip reports. Other stalwart contributors include the late Frankie Farrell, one of

the authors of the book *Native Trees of Trinidad & Tobago*, and Dr. Christopher Starr whose articles have recounted to us his many trips to the various tropical countries and his opinions. Field trip leader Dan Jaggernaut also did a commendable job of keeping the bulletin filled with entertaining field trip reports for 7 years.

Although the Club also published a scientific journal, *Living World*, many noteworthy contributions have been documented in our pages, including checklists of plants, birds and butterflies. The simple observations and results of simple experiments have also been published. Sightings of rare birds have also been made. It has also documented many projects undertaken by the Club, some of which include the marking of new trails, and the turtle tagging project conceived by Ian Lambie and led by the late Prof. Peter Bacon.

IN THIS ISSUE

History of the Field Naturalist	pp 1
A Snake bite Experience	pp 2
Whaling in the Caribbean	pp 5
Why are we so (self-) deceived	pp 7
Margaret Fountaine	pp 9
Observations at Morne Bleu	pp 10
The Dirt on Soil	pp 10
Field Trip reports:	
El Tucuche	pp 11
Fishing Pond	pp 12
Birding in Oroupuche	pp 16
Pt Lisas Industrial Estate	pp 17
Tobago 2006	pp 18
Book review	pp 21
Lecture Summary	pp 22
Management notices	pp 23
Notes to Contributors	pp 24

A Snake-Bite Experience

Glenn Wilkes

On Saturday 18th June 2005 at around 2.30 p.m. the incident occurred on a surveyed property boundary, and is thus quite accurately located. It was on the northern bank of the Tompire River, south of Naranjo Trace (off Anglais Road, Cumana). Grid co-ordinates 1,193,770N, 719,500E. Funso Aiyejina (proprietor) and I were walking in the shallow water of the river, when I decided to look for a derelict building that we had stumbled on during an initial reconnaissance of the property.

The river has a low bank which is undoubtedly covered when it is in flood. It then rises fairly steeply for about 4 m before levelling out. Resting next to the steeper bank was a large tree-trunk about 0.8 m in diameter. Using a buttress as a step, I climbed up on the tree, and walked along it looking for the best place to climb the bank. There were some bushes growing between the trunk and the bank, and it extended to about 0.5 m above the top of the trunk. The bank itself had scattered small bushes growing on it. As I stepped up with my left foot from the trunk to the bank, I felt a couple of mild, stabbing pains below my calf. There was no discernable movement, nor was

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

April – June 2006

Editor.....Jo-Anne Nina Sewlal
Assistant Editor..... Christopher Starr
Contributors..... Jo-Anne Nina Sewlal,
Christopher Starr, Matt Kelly, Stephen Smith, Alison and
Peter Melville, Glenn Wilkes, Ian Lambie, John Lum Young
Photographs.....Jo-Anne Nina Sewlal,
Nicholla Johnson, Shane Ballah, Neil Birbal
Design & Layout..... Jo-Anne Nina Sewlal
Technical Support Nolan Craigwell, Jerome
Ramsoondar, Nigel Austin, Enid Nobbee

**The Trinidad and Tobago Field Naturalists' Club is a
nonprofit, non-governmental organisation.**

Management Committee, 2006-2007

President.... Reginald Potter (694-1160); Vice-President...
Carrall Alexander (633-3373); Secretary....Shane Ballah (796-
3335); Assistant Secretary...Richard Wallace (627-4307);
Treasurer.....Selwyn Gomes (624-8017);
Committee Members...Dan Jaggernauth (659-2795); Stephen
Smith (678-1766); Paula Smith (633-0697).

Website: <http://www.wow.net/ttfn>

Contact: The Secretary, TTFNC c/o P.O. Box 642, Port of
Spain. **Email:** ttfn@wow.net

Disclaimer: The views expressed in this bulletin do not necessarily
reflect the opinion and views of the Trinidad and Tobago Field
Naturalists' Club

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.**

there any feeling of impact, and I assumed that I had been “chooked by a picker”. I stepped back on the trunk, and using the cutlass which I was carrying unsheathed in my right hand, probed the bushes looking for the “picker”. I then felt the same type of pain in my right shin. Again, there was no feeling of impact or sign of movement, though my own probing of the adjacent bush would probably have disguised any. Quite mystified, I continued looking for the “picker”, until I heard Funso shout out in alarm. Even then, my mind turned to “jep”, and I looked up expecting to see him being attacked. “It’s a snake!” he shouted, and I jumped down from the tree and ran into the river. I examined both legs and there were unmistakable fang marks. Since I had not yet seen the snake, I asked him to describe it. He seemed uncertain, and said it looked “sort of black and white”. Both his description and the fact that the pain was mild seemed to indicate that it was perhaps a tigre. “It is still there, under the tree”. I approached the trunk where he indicated and saw half-curved up the unmistakable velvety look and “vee” pattern of a mapepire balsain (*Bothrops atrox*). The initial identification was visual and based on close examination of zoo specimens on numerous occasions. The snake was not killed. The nature of the envenomation confirmed the identification.

The body was approximately 4-5 cm thick and the distance between fang marks was 2.8 cm. Based on this and the position when striking, its length is estimated to be about 1.3 m.

The snake was probably asleep under the trunk directly below where I was bitten. It was disturbed either by our sloshing and talking, or by my movement above it. When I extended my left leg, it struck upwards in the space between bank and trunk. Though it was not in the best striking position, it still had a clear shot, and this accounts for the fact that the wound on the left leg was bleeding more than those on the right. The repeated strikes on my right leg must have been in frustration, since it was not only reaching up, but also around the bole of the tree. At no time would it have been able to get the leverage required for an efficient strike. Once I had moved, it seemed quite content to resume its nap.

As far as I knew, there was no effective “field” treatment, so with the maxim “festina lente” (hasten slowly) ringing in my ears, we hiked the 300 m back to Funso’s vehicle. Billy Pyke lived not far away, and we drove there. He gave me two sets of tablets, (anti-histamine and pain-killers) noting what they were on a piece of paper. At my request, he also gave me a “chubby” bottle of ice, which I placed against the left leg, which was more swollen and painful. However, at no time between when I was bitten and when the antivenin was administered, could the pain be described as severe. We drove to the Cumana Health Centre and then the Matura Health Centre. They were both closed. I then called Hans Boos, described the incident, and asked whether we should go to Sangre Grande or Port of Spain Hospital. He advised me to come to Port of Spain. About two hours after being bitten, we arrived at the Accident and Emergency Department, and I limped in unassisted. There was little delay in seeing a doctor once I said “snake-bite”, but the first one I spoke to was obviously a foreigner, perhaps from India, and was unfamiliar with the species of snake, even when I described it as a pit viper. To my relief, Dr. Damian Hezekiah, who by coincidence is Pyke’s cousin, and whom I’ve known from childhood, came and took charge. He took my medical history, tested blood pressure etc., verified that I had no likely health complications (diabetes, allergies etc.), and administered 5 vials of polyvalent antivenin by way of a drip. Having determined that my Tetanus was not up-to date, I was also given a shot. I was told that I would have to be kept a couple of days “for observation”.

On my arrival on the ward, there were no available beds, and I spent the first night on a bench. By midday the next day a bed became available. Beyond the initial treatment, my 3 days in hospital were really “for observation”. Since I never developed life threatening symptoms such as blood in urine, there was no further need for antivenin. One can well see the uncertainty in trying to determine the required amount, so the policy seems to be “observe and increase if required”. The blood tests and pressure were repeated during my stay. Though my clotting was normal, I had a slightly elevated sugar level and slightly low pressure, and the “couple of days” were extended to three.

At no time did I feel I was “facing death”, and it has been a very interesting experience in many ways, but it would be difficult to use it as a “guide” to others. The difference in severity between the left and right leg bites is only one indication of how many variables are involved. Health and fitness were undoubtedly in my favour, as was my knowledge base. I can imagine the terror that would grip someone who didn’t know what to do or whom to call for advice. Funso, for example, was much more agitated than I was.

The right leg was a very mild version of the left, so I’ll confine my comments to the latter. For the first two hours, there was a gradual increase in pain and swelling. Initially there was also an itching. After about four hours the pain had increased to the point where it had to be relieved by elevating the leg. Most of the first night was spent sitting on the bench with the leg propped up on a chair. There were regular cramp spasms in the calf muscle, but I don’t know if that was due to the poison or the uncomfortable sitting position. By the following day, the swelling

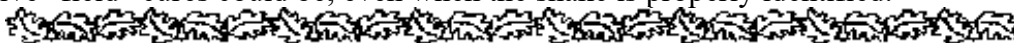
had extended from the calf to the toes. Once the leg was elevated, there was little pain, but the minute the leg was put in a vertical position (even sitting on the edge of the bed), the pain became severe. The swelling exhibited an interesting pattern, varying in a “tidal” cycle. On one occasion it migrated above the knee joint, but that may have been a result of poor circulation. There was little change for about three days, and then it gradually started to improve. For the first week I had to use a four-legged walker. Eleven days after the incident, I went to my son’s graduation using a cane. During the course of the evening, I sat for an extended period and climbed two flights of steps. The cane was not very useful and was not used again. What was very helpful was a compression stocking. Initially it greatly reduced the pain when sitting or standing.

At present it controls the swelling that still occurs after prolonged periods of sitting or standing. There has been no external indication of necrosis (rotting) of the wounds, but the continued swelling must be evidence of internal damage. Time will tell if it is permanent.

Apart from the actual medicines administered in the hospital, at Detta Buch’s advice, I drank lots of water. I drank no alcohol for a month. I started exercises with a stretch band in a prone position about a week after the incident, and after another week, was able to walk around the savannah in 40 minutes. The three-week anniversary I celebrated with a walk up to the tracking station in Chaguaramas, taking about 3 minutes longer than normal. After another three weeks I felt confident to resume my weekly Mt. Catherine hikes. Four months later, the left ankle still gets swollen after extended periods of sitting or standing. Interestingly, walking does not appear to increase the problem, and recently I did a Blanchisseuse-Madamas-Blanchisseuse hike, without affecting the ankle.

Somewhere between an irrational fear of the unknown and “familiarity breeds contempt”, those of us who frequent the “bush” have come to terms with its hazards. An incident such as this suggests that perhaps one should reconsider habits or attitudes adopted over the years, and you start thinking “would’a, could’a and should’a”. There was no emotional trauma, and it has been easy to dismiss the incident as a “freak accident”, which statistically, it probably is (I seem to have the dubious distinction of being the only surveyor in living memory to have been bitten by a mapepire). But there remains a nagging feeling that one should “learn” from an experience. A definite lesson is that a mapepire bite could be so innocuous; it was possible to mistake it for a “picker chook”. We are accustomed to stings and bites that indicate their seriousness by violent pain. Had I continued climbing up the bank after the first bite, the snake would probably have retreated, and I might have delayed seeking medical attention. But if the lesson is that even “a little chook” might be something serious, you come the full circle. My multiple bites were as a result of investigating the initial one. I remain ambivalent about whether I am being irresponsible whenever I venture into the bush or sea alone. Last year for example, this included trips to both El Tucuche and Cierro del Aripo. I have received almost universal criticism from survey workmen and hunters for wearing hiking boots in stead of “tall” boots in “snake” country. They are also quite upset that I didn’t kill the snake. They don’t agree with my analogy that if someone’s dog bites you, it doesn’t deserve to die.

As a naturalist, it has been very interesting to be a “guinea pig” in a study of snake-bite and the effect of the poison. Though a large animal (such as me) could possibly succumb to a mapepire bite, it would be a pointless attack in terms of “food”; since the prey could travel so far afterwards it would be virtually irretrievable. I’m quite convinced that there is little difference between an attack from a mapepire or a jack spaniard. They are both quite happy to go about their normal business, which does not involve man. We are attacked only when we invade their “space” and threaten them. The differences between the bites on left and right legs, demonstrates how inconclusive “field” cures could be, even when the snake is properly identified.



Whaling in the Caribbean

Jo-Anne Nina Sewlal

Dept of Life Sciences, University of the West Indies

On the 19th and 20th April 2006, the International Fund for Animal Welfare (IFAW) in collaboration with COPE (Council of Presidents of the Environment) and CYEN (Caribbean Youth Environmental Network), hosted a meeting to discuss an agenda for the International Whaling Commission (IWC) conference, being held in St. Kitts in June. Representatives from 12 Caribbean countries in areas such as hotel, tourism, conservation, whale watching and the private sector attended. The aim of this meeting was to have a clear agenda in support the conservation of whales. Founded in 1969, IFAW was formed to stop the commercial killing of baby harp seals in Canada. In the past 37 years IFAW has become an international animal welfare organization, with offices in 15 countries. Their efforts include; easing the suffering of companion animals, protection of marine mammals, protecting animals from commercial trade, rescuing and rehabilitating oiled wildlife, preserving wildlife habitats; providing sanctuaries for orphaned, abused or injured animals. IFAW relies on scientific research, public education, close cooperation with governments, NGOs and local communities to carry out its mission.

Whaling, what does that have to do with the Caribbean or Trinidad & Tobago for that matter? Our Gulf of Paria was a breeding ground for the humpback whale (de Verteuil 2002). Three species of cetaceans that frequented the Bocas and Gulf of Paria during the 19th century were *Tursiops truncatus*, *Megaptera novaeangliae* and presumably *Stenella frontalis* (de Verteuil 2002). Other occasional visitors include the false killer whale (*Pseudorca crassidens*), real killer whale (*Orchinus orca*), spinner dolphin (*Stenella longirostris*) and the short-finned pilot whale (*Globicephala macrorhynchus*) (de Verteuil 2002). Therefore one can see how diverse the cetacean population in our waters once was.

Whaling in Trinidad is believed to have been from February to May each year during the period 1824 to 1880 (de Verteuil 2002). Trinidadians mainly used whale oil for lamps and as a remedy when mixed with honey for the flu and colds and with lime juice for asthma. The meat was also eaten to a small extent in Trinidad (de Verteuil 2002). Well known Trinidadian whalers were the Tardieu brothers (de Verteuil 2002) and Trinidad's first whaling station was at Chacachacare, at La Pecheury (Bulmer's Bay). Two other whaling stations existed at Gaspar Grande (Point Baleine), one at the westernmost tip; and the other at the north. There was one at Jenny Point (Copperhole) at Monos (de Verteuil 2002). Unfortunately, due to this intensive activity, whales are rarely sighted in our waters today.

Over the years whale oil was used for lamps, the manufacture of soap, candles, paraffin and margarine (de Verteuil 2002). However, with advancements in technology many of these products can be synthetically produced so that today whales caught only for human consumption. Despite the 1986 Moratorium which suspended commercial whaling, both Japan and Norway still practice whaling. Japan's whaling has seriously affected the biodiversity of cetaceans, as IFAW funded DNA studies have shown, where whale meat from protected species like the humpback and Bryde's whales continue to appear in Japanese and South Korean market places. But contrary to popular belief most Japanese (61%) have not eaten whale meat since childhood, if at all.

At the next IWC conference the Japanese hope to win the majority towards pro-whaling using the process of "vote consolidation" or vote buying. It is doing this by targeting usually poor countries and building a fishing facility for them. In return the country will give a pro-whaling vote at the conference. But as we heard during the course of the meeting from the representatives of the other islands, these facilities cannot be operated because of the large amount of electricity needed and the costs involved. Measures to counter the Japanese "vote buying" strategy would be to prevent more countries from voting pro-whaling and to have some of the islands act as

“champions” for the cause. If Japan gets the majority it will stop the conservation efforts by the IWC as well as further discussion on animal welfare as it pertains to whaling. Unfortunately CARICOM has taken a pro-whaling position.

Paul Ramage in his presentation emphasized that “the threats to whales are more numerous and severe than ever before in history”. Whaling is classified into three types; commercial, special permit and aboriginal. Currently Japan practices what it calls “scientific whaling” meaning that they kill a certain number and report it after to the IWC. It will ensure that resolutions supporting “scientific whaling” are adopted and pave the way for international trade in whale products. In the Caribbean the only island that practices whaling (aboriginal) is St. Vincent and the Grenadines, in particular the island of Bequia. It is fuelled by the belief that the consumption of whale meat will give immortality. Although there may not be heavy commercial whaling in our waters, our vote will be supporting international whaling, and when the numbers of whales are low or non-existent, whalers will come to Caribbean waters. We also have to think about our image to the international community. Currently the waters surrounding Antarctica have been designated the Southern Ocean Sanctuary. The South Pacific is the latest proposed sanctuary in an effort to protect the breeding ground of some of the whales in the South Ocean Sanctuary. But Japan’s new “scientific” whaling plan will result in twice the number of minke whales killed in the Southern Ocean Sanctuary.

Also discussed at the meeting was the topic of marine strandings, the details of which were covered at the Marine Mammal Stranding Workshop held in November 2005 (see Sewlal Q4 2005). Although most strandings end in tragedy they yield useful biological data. The reasons for strandings overlap those of whaling. But it should be noted that Trinidad & Tobago is regarded as one of the hotspots for strandings. Also emphasized was the need for regional cooperation and public awareness to respond to strandings in the Caribbean.

The most feasible solution to economically benefit from whales without killing them is whale watching. Whale watching is becoming a major form of tourism for many Caribbean islands, like Dominica, Grenada and even St. Vincent. It more or less had the same beginnings in all the islands where it is practiced, where commercial sport fishermen would take out tourists and instead of fishing they would be fascinated by whales and smaller marine mammals. As an added attraction, most operators send down hydrophones and visitors hear the sounds, usually clicks, the whales and dolphins make using echolocation to find prey and communicate.

Whale watching is a renewable source of income and valuable source of tourism, in that it provides jobs for locals of all skills, restaurants, handicraft, transport, guests to hotels, and adds to what other attractions the island has to offer, for example, hiking. Whale watching besides its economic value, also provides much scientific data, such as, GPS location, date and species sighted. An incentive for these tour operators in some islands is the presentation of awards for excellence in the field of whale watching. But it was stressed that tour operators should be properly trained so as not to scare away the whales.

IFAW has promoted its cause in the Caribbean by increasing public awareness through “floating classrooms” in countries like Dominica, Antigua and St. Lucia, as well as the publication and distribution of

Panel discussion – from left Osmond Harewood (CYEN), Pat Turpin (COPE), Derek Perryman (Dive Dominica) and Atherton Martin (CCA).

Photo by Jo-Anne Sewlal

children's books on whales and dolphins. IFAW's new research vessel "Song of the Whale" promoting non-invasive whale research methods journeyed to Trinidad between February and March of 2006. During this period they carried out a survey of these marine mammals in the waters surrounding our island.

One has to ask with all this happening was the marine life in the Caribbean ever safe? The convention for the Protection and Development of the Marine Environment of the Wider Caribbean region (Cartagena Convention) adopted in March 1983 is part of a worldwide programme to protect our regional seas. It is the only one of its kind. To further implement this convention the SPAW Protocol was signed in January 1990 and adopted as international law in June 2000. The objectives can only be done through regional cooperation.

At the end of the two-day meeting it was decided that we should adopt an agenda promoting pro-conservation of regional and international fora. This includes the designation and promotion of a Caribbean regional whale and dolphin sanctuary. The increasing economic importance of whales and the marine environment to the region should be recognized. Finally sustainable tourism in the form of whale watching should be supported.

Acknowledgments:

Thanks to Carrall Alexander for the prompt review of this article and comments.

References

De Verteuil, A. 2002. Western Isles of Trinidad. Litho, Port of Spain. 237-52 p.

J.N. Sewlal. 2006. Marine Strandings. *The Field Naturalist, Bulletin of the Trinidad and Tobago Field Naturalists' Club.* (1):3-5.



Why Are We So (Self-) Deceived?

Christopher K. Starr

Dep't of Life Sciences, University of the West Indies

In *Jungle Peace*, William Beebe gave an illustration of the extremely effective camouflage colouration of the bushmaster, or mapepi zanana (*Lachesis muta*). Beebe's assistants showed him a bushmaster coiled among fallen leaves on the forest floor. Looking right where the assistants pointed, he still had great difficulty making out the snake at all and finally had to reason out the peculiar shape of the head in order to convince himself that it was really there.

My own anecdote about a camouflaged snake has quite a different plot and serves to illustrate an important point about how we perceive features of the environment. Many years ago I was in Tobago with Canadian entomologists Stewart & Jarmila Peck. One day, while the Pecks were setting up an intercept trap, I took a stroll in the nearby forest. In wandering about, I came upon a fine big boa constrictor, or macajuel (*Boa constrictor*) just lying there minding his own business. I don't know why I saw him so easily there among the fallen, sun-dappled leaves, but there he was, as plain as day. I stood and admired him for a bit and then thought the Pecks might like to see him, so I went to ask them. As it happened, they were still involved in getting their trap just right and had to let the opportunity pass, so I went back alone for another look.

As I approached the area where I had seen the snake I looked around, and there he was, looking ever so fine and distinct. And then a funny thing happened. As I approached the boa constrictor, he turned into a scattering of dead leaves. Not literally, of course, but what I had taken to be the anticipated snake turned out to be an illusion. I chuckled at the self-deception and looked around for the real thing. And there he was, just a few meters away. So I walked over for a closer look and, once again, the apparent snake melted away before me.

In mounting shock and frustration, I did this twice more, until all I could do was stand there in the middle of that glade of sunlight and shade and grind my teeth in the knowledge that the big, handsome boa constrictor was probably right there in plain view and yet invisible to me, protected by an unending series of hallucinations.

Okay, so what was going on here to give rise to such bafflement? It was all in my head, but how did it get there?

The world is a bewildering place, and our perceptual system has evolved to make sense of it. Both at the level of the sense organ and deeper at various levels of the nervous system, we have an array of mechanisms to sort through the great mass of incoming sensory information, quickly discard the irrelevant, and process the relevant into usable packages. It is rather similar to the sorts of things you do in reading, and in deciding what to read in the first place. And it is all done on the run, because these mechanisms are shaped by natural selection as tricks of survival in a hostile world.

One trick we use is called a *search image*. We are more likely to find what we're looking for if we already know what it looks (or sounds or smells or feels) like. Having seen the boa constrictor, for example, I was automatically discarding whatever did not fit my pre-formed search image, and this made it easy to find the snake again.

Too easy, as you have seen, which illustrates an important peculiarity of search-image formation. Incoming images never fit a search image perfectly, yet the perceptual system does not go to the trouble to treat them as 4% or 27% or 93% like the original. Instead, it tends toward an all-or-nothing response, which is to say it either ignores a given image as nothing at all like the search image or grabs ahold of it as positively the thing being sought. In the latter case, points of similarity are enhanced, while inconvenient points of dissimilarity are suppressed.

To give a familiar (if extreme) example, you all know what happens in many countries when a stain appears on a wall approximately resembling a woman's face. If one person notices this vague resemblance, she calls all of her neighbours, and the stain becomes not sort of like a face but absolutely a picture of someone. And not just any woman. No, it is none other than the Blessed Virgin. Search images are a very valuable piece of our perceptual equipment, but occasionally the whole process goes terribly wrong, and then we get the preposterous situation of hordes of Catholics praying to a decaying wall. Or a single naturalist repeatedly mistaking a scattering of dead leaves for a live snake.

A key element in all of science is the search for patterns in nature, and this is why we have statistical tests. Seeing patterns is easy, very often too easy for humans, so that the main function of statistics is to tell us whether the apparent pattern is real or if we are deceiving ourselves. Statements that the data show a significant difference between one thing and another usually mean that we are satisfied that such a pattern is real. Why are we satisfied? Because it is shown mathematically that the probability of such a pattern arising by chance is very small, conventionally 5% or less.

Conclusions of this sort can of course be mistaken, and the error can go either way. A Type 1 error is the acceptance of a pattern as real, when it is not. On the other hand, if the statistical test leads us to conclude that no such pattern is real, yet it is real, a Type 2 error has occurred. In scientific practice we tend to be much more tolerant of Type 2 than Type 1 errors, but natural selection almost certainly favours the opposite tendency in perception. To momentarily perceive a snake where none is present is a minor nuisance, while the opposite mistake may be fatal to a bird or small mammal. (This in no way excuses anyone who stares at a wall right there in plain view, with plenty of time to think it over, and yet mistakes a raggedy splotch for ... well, you get the point.)

When the tendency to make Type 1 errors becomes extreme, a way of life, we call it paranoia. Like all animals, we humans have a bit of paranoia in all of us, and it is a good thing that we do. There really are hazards and opportunities out there, and natural selection favours the perceptual system that can recognize them quickly. Still, I have to admit, I am just as happy not to see a snake in each and every patch of forest floor that I walk.



Margaret Fountaine – We Found You Jo-Anne Nina Sewlal and Christopher K. Starr

Dept of Life Sciences, University of the West Indies

Margaret Elizabeth Fountaine, the eldest daughter of an English country clergyman was born in 1862. Her passion to collect butterflies took her all over the world to places like Hungary, Turkey, the United States, South Africa, India and the borders of Tibet. She not only collected very extensively but published many papers from her studies. In 1940 at the age of 78 while collecting, she suffered a heart attack and died on Mt. St. Benedict, near the site of the present Pax Guest House.

After reading of her adventures in “Love among the butterflies: the travels and adventures of a Victorian lady” (Fountaine 1986) we were fascinated by this amazing lepidopterist. Cock (2004) stated that she was buried in an unmarked grave in Woodbrook Cemetery. This posed a challenge but with the help of Mr. Lalman Bissessar supervisor of the Woodbrook Cemetery we were able to locate her grave. She was the first person buried in that plot but since it was at the expense of the Government the plot was later sold, and since her death two other persons have been buried in that plot.

Transcript of record of burials

No. 6223

Names: Fountaine Elizabeth Margaret

Sex F

Years: 70

Months: -

Country: England

Religion: -

Cause of Death: apoplexy

Residence: St. Benedict

Fees Paid: \$3.00

Where buried: No. of block: 1400

No. of grave: 87



The last resting place of Margaret E.
Fountaine.

Photo by Jo-Anne Sewlal

Acknowledgments

Thanks to Victor Quesnel for transport.

References

Cock, M.J.W. 2004. Margaret E. Fountaine, and Early 20th – Century Butterfly Collector in Trinidad. Living World, J. Trinidad and Tobago Field Naturalists' Club. 43-49p.

Fountaine, M.E. 1980. Love among the butterflies: the travels and adventures of a Victorian lady. (edited by W.F. Cater). London, UK. Collins.



Observations at Morne Bleu

Ian Lambie

Since mid-December 2005 and up to the time of writing on 28th May, 2006, Pawi (*Pipile pipile*) have been seen on a regular basis along the Entrance Roadway to the Transmitting Station at Morne Bleu on the Blanchisseuse Road by guests and Birding Guides of the Asa Wright Nature Centre.

Also at the same general location, from mid-April 2006 to the first week of May 2006, several thousand small lace-wing butterflies (*Actinote pellenia trinitatus*), were seen either feeding or copulating. (Barcant 1970, Plate 18(No.7)).

For further information please communicate with Dr. Howard Nelson at the Asa Wright Nature Centre Telephone: 667-4655 Ext . 4(2) or email:howien@hotmail.com

Reference

Barcant, M.1970. Butterflies of Trinidad and Tobago. London: Collins. 147p.



The Dirt on Soil

Jo-Anne Nina Sewlal

Dep't of Life Sciences, University of the West Indies

We walk on it everyday and treat it like dirt, literally, but what is soil? Soil is much more than the topmost layer of the earth's crust in which plants grow (Colinvaux 1993). Soil acts as a recycling system, waste disposal system and nutrient delivery system for habitats. It also acts as a site for germination and support for plants as well as a place for them to decay. For animals it functions as a refuge, sewer or an environment, and finally for decomposers it is a resource.

The study of soil is called pedology, derived from the Latin word meaning "foot". This is the same Latin root from which words like pedestrian and pedal are derived. Following the same trend, a person who studies soil is therefore called a pedologist.

There are hundreds of different soil types in the world. But interestingly enough, soils in different parts of the world have different colours. This characteristic aids in their identification. Temperate soils for instance, tend to be grayish-brown, while soils in the tropics are typically red (Colinvaux 1993).

If you were to remove a slice of soil you would see that it is made up of different layers like a cake. In some soils these layers are distinct while in others the change is gradual so it is difficult to see where one layer stops and another begins. But all soils can be separated into three main layers or horizons excluding the parent material (that is the rock which erodes to form part of the soil) which is the very bottom, and leaf litter at the very top. At the very top is a layer of leaf litter, under which is mineral soil **which is** mixed by animals, such as earthworms. The first horizon – Horizon A has lost minerals through leaching by rain, but has gained from decomposition of the leaf litter. The minerals that are leached out of Horizon A accumulate in Horizon B causing it to be coloured. The final horizon – Horizon C contains weathered particles of the parent material. Under this horizon is the parent material.

Reference

Colinvaux, P. 1993. Ecology 2. John Wiley & Sons, Inc. New York. 526-527p.



FIELD TRIP REPORTS

El Tucuche Field Trip - February 26th 2006
Stephen Smith

The group numbered 26, and we started our journey at 7:40 a.m. We parked our vehicles along the road that leads to the renovated Ortinola Great House. As we walked along the trail Dan pointed out the pomereac trees (*Eugenia malaccens*) that lined this part of the trail. We had not yet started to ascend in any significant way. Having walked some way along the trail past two small, newly built concrete bridges, Dan noted there being a new addition to the geology of the trail.

We passed what is called a “miracle tree”, probably another name for the Bois Sang (*Croton gossypifolius*) so called because the sap bears a strong resemblance to blood. We received the customary graphic representation with the requisite tree bark being cut and the sap smeared on our guide’s hand. As we continued along this part of the trail, our guide showed everyone the performance of the sensitive plant, known locally as the Ti-Marie (*Mimosa pudica*). Further along the trail on the right, Dan spotted a rubber tree, (*Hevea brasiliensis* if it was a para rubber tree, the imported variety, or *Castilloa elastica*, the local one). We were unable to find out which one. This tree is so called because its sap is utilized for the production of rubber. ~~and~~ We slashed away at the bark to reveal the viscous ~~sap~~ latex running from it. As we made our first river crossing we saw coffee plants (*Coffea arabica*) in bloom and the flowers of the wild chataigne (*Pachira insignis*). Dan commented on their distinctive five red petals and yellow centre. He remarked that the fruit was edible, presumably cooked, since he declined to give a demonstration on the raw specimen.

Glen Wilkes, (who opted to break from our ranks and make it to the top and greet us on his return down) has often remarked that the stationary nature of flora ensures that amateur botanists are rarely disappointed on these field trips, and so far he was not being proven otherwise. Apart from the orange winged parrots (*Amazonas amazonica*) that we spotted in the blooming immortelles (*Erythrina micropteryx*) at our parking area, the pickings for fauna had been very slim. However, as we passed the river and ascended along the trail, we were able to hear the calls of *Manophryne trinitatis* frogs, from several points along the trail. Dan pointed out the Maraval lilies that lined the left of our trail and Aroid (*Spathiphyllum cannifolium*).

The trail levelled out ~~significantly for a brief time~~ at this point, and here it is lined with tonka bean trees (*Dipteryx odorata*) on our left. Off in the distance we heard the calls of the Black Faced Ant thrush (*Formicarius analis*). Dan informed that if its four note call is imitated it may come close enough to investigate its source. At this point we noted the presence of a large silk cotton tree (*Ceiba pentandra*), a tree of great significance in the local folklore. Its height was estimated at about 150 m.

Just before the trail descends, we passed an occupied wooden hut on a small cocoa plantation, and were treated to a view of the immortelles that peppered the landscape of the green on the left side of our trail. We spotted another, younger, but still impressive silk cotton tree shortly after our passing the hut.

As ~~one got farther into the part of the trail that becomes steep for a significant stretch the trail steepened~~, we encountered an old, fallen sign, placed there by the Forestry Division that informs that we are entering the territory of the “golden tree frog, found nowhere else in the world.” Five members of the group who led the way ~~at~~ to this point went off the designated trail ~~when~~ at this juncture - they took the path on the right - and had to find their way back on to the correct one eventually. They were fortunate enough to have met Glen Wilkes as he descended, and through a series of steep shortcuts which are indicated on the trail by red cloth ribbons tied to trees, they were able to make it near the top and meet with the rest of the group in time to reach the top

of the peak. They probably learned not to be in such a hurry as to get too far from the designated trail guide.

Near to the top of the mountain we were able to see the giant bromeliads (*Glomeropitcairnia erectiflora*) which provide the microhabitat of the golden tree frog (*Phyllodytes auratus*). The weather atop the peak was clear and hot, and it was noted that we were lucky to have had such good weather. Nicholas See Wai identified a large spectacled owl (*Pulsatrix perspicillata*) that the group startled, but rewarded them for this by allowing them to see how impressive and effective its large wingspan was.

We reached the top of the peak at about 12 noon, and rested for about 45 minutes before we started the descent. The ascent to the top was accomplished quite competently by Caitlin and Joachim Snow of Scotland, aged five and seven respectively. Before we left, Selwyn Gomes and company planted an electronic thermometer on the behalf of Victor Quesnel on the peak so as to get readings on what the temperatures on El Tuche's (At 972 m above sea level, it is one of the few places in Trinidad left where one can experience the full effects of cloud forests.) Preliminary readings so far have indicated that the temperature drops to about 19C, and I'm sure we all look forward to reading about more details of Dr. Quesnel's findings in either future issues of the Quarterly bulletin or the club's journal.



Botany Group trip – Fishing Pond

March 18th 2006

Nicholla Johnson

A group of thirty one members, family and friends of the Trinidad and Tobago Field Naturalists' Club visited the forest in the Fishing Pond area located on the east coast of Trinidad just southeast of Sangre Grande. The group was accompanied by Mr. Takoorie Boodoo a Forestry Division Honorary Game Warden from the area who assists with the patrolling of the Fishing Pond beach during the turtle nesting season. We started off on the road that runs alongside the river in the area formerly cleared and developed for rice cultivation, which was being used for short crop cultivation at the time of our visit. The abandoned, wetter parts were seen to be overgrown with the native marsh vegetation such as the yellow flowering *Canna glauca*, the Maranthaceae *Thalia* sp., and the aroid *Montrichardia arborescens* a familiar sight in the Nariva Swamp, and the Marianne River mouth. Another dominant marsh species observed was the lovely green expanse of the sedge *Eleocharis mutata* that is common on the "highway side" of the Caroni Swamp. Also seen were the roadside weeds *Lantana trifolia* with its purple flowers, and the common black sage (*Cordia curassavica*).

Along the riverside was the thorny purple flowering legume *Machaerium lunatum* with green, flat, spiral pods as well as a noticeably solitary *Avicennia germinans* with pneumatophores growing from great heights of the tree. This was the site of a bird rescue by John Lum Young who ~~rescued~~ recovered a tropical mockingbird hatchling (*Mimus gilvus*) that had fallen from its nest and ~~was~~ returned it to safety by Mr. Lum Young. Also at this location was a dredging barge that was stuck in the river where the water level was notably too low for it to float. We also observed on the edge of the nearby forest the round-stemmed species of *Cyperus articulatus*.

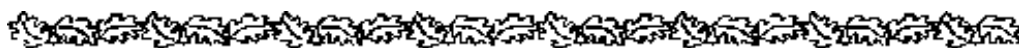
The group proceeded across an old sluice gate and feasted on guavas from a guava tree (*Psidium guajava*) that was growing on the forest margins. The thorny palm *Bactris major*

dominated the forest edge, and inside the tall *Atalea butyracea* palm and also the scrambling vine-like palm *Desmoncus orthacanthos* with large spines was more common. Another dominant plant was the *Genipa americana* with its distinct brown fruits that were slightly larger than a sapodilla, and on the understory the orange flowering *Heliconia psittacorum*. Built within the stem and leaves of a young *D. orthacanthos* we saw a small bird's nest which Victor Quesnel thought looked like that of a blue-black grassquit (*Volatinia jacarina*). Ishmael Samad^H identified the bones found on the ground as those of a dead black vulture or corbeau (*Coragyps atratus*) from the appearance of the feathers found close by and the distinct pelvic bones. Overhead was a large cashima tree (*Rollinia mucosa*) with distinct leaves, and a virgin orchid (*Caularthron bicornutum*) identified by Carlyle McMillan that was growing on a hog plum tree (*Spondias mombin*).

Members stopped at an interesting tree with **knobby knobby** stems and thick waxy leaves that was identified by Mr. Johnson as *Rheedia acuminata*, which produces a yellow sap when it is cut. There was a discussion about the kisakadee tree *Vismia laxiflora* and *V. cayenensis* which can be identified by the gland-dotted underside. The area continued to be dominated by *G. americana*, *B. major* and the *A. butyracea* with a cutlet tree (*Citarexylum* sp.) with its peeling bark and the vine-like grass *Lasiacis* sp. also observed in the area.

The group took a scenic stop to view an expanse of *E. mutata* and *H. psittacorum* and to partake in the delicious fruit shared by Dan Jaggernauth and Lester Doodnath – sapodilla (*Manilkara zapota*) Surinam cherry (*Eugenia uniflora*), bilimbi (*Averrhoa bilimbi*), pommerose (*Syzygium jambos*) and balata (*Manilkara bidentata*). We proceeded along the trail noticing the thorny *Smilax* sp. vines that grew on the ground crossing the path and soon arrived at the base of some fruiting balata trees (*Manilkara bidentata*) and lovely pink flowering wild ixora (*Iserfia parviflora*). Unfortunately the signs of the unsustainable harvesting of the fruits of the balata trees were very evident with the large broken off branches left behind from the harvesting. However, several fruits remained but did not go to waste as the members enjoyed what was left behind on the ground and on the broken branches. Another forest fruit we had the pleasure to eat of was that of the manicou fig (*Bromelia plumieri*) that is related to the pineapple and was in full fruit. The group enjoyed the sour-sweet seedy fruits that were produced in large numbers at the centre of the plant.

Nearby there were also cuchape (*Coccoloba latifolia*) with the distinct large round leaves, as well as the beautiful moss that was covering the *A. butyracea* trunks. At the lunch stop Ishmael identified the beautiful calls of the jungle wren or rufous-breasted wren (*Thryothorus rutilus*) as well as the yellow-bellied elaenia (*Elaenia flavogaster*). The group was unable to go much further because of the overgrown path as well as the news from those ahead that the boardwalk to the beach had fallen apart because of a lack of maintenance and was now unusable. So we returned to the cars and partook of the delicious watermelon and cold coconut water provided by Dan, which was a delightful end to another interesting botany trip.



BOTANY TRIP – Fishing Pond Plate
Compiled by Nicholla Johnson
Photos by Nicholla Johnson and Shane Ballah

Lasiacis sp. (Grass)

Isertia parviflora (Wild Ixora)

Smilax sp.

Montrichardia
arborescens - plant

M. arborescens – fruit *Bromelia plumieri* (Manicou fig)

B. plumieri (Manicou fig) – fruit

Moss (Bryophyte)

Rheedia acuminata leaves

Lantana trifolia - flower buds

Dan and *Caularthron bicornutum*
(Virgin orchid)

Canna glauca -fruit

Botany Group



Bird Group Trip – Oropuche and Rousillac March 19th 2006

Matt Kelly

Ten of us met at 5:30 am at the Grand Bazaar for the trip, led by Clayton Hull. Along the coast, on the way to Rousillac, we saw many of the ubiquitous sightings, and also; yellow-headed caracara (*Milvago chimachima*), ruddy turnstones (*Arenaria interpres*), little blue heron (*Egretta caerulea*), large-billed tern (*Phaetusa simplex*), and brown pelican (*Pelecanus occidentalis*). Stopping just outside Rousillac, we observed; yellow-rumped cacique (*Cacicus cela*) and three scarlet ibis (*Eudocimus ruber*) in flight.

On the outskirts of Rousillac swamp, we had an excellent view through Clayton's scope of an osprey (*Pandion haliaetus*), high in a dead tree, tearing up a fish for breakfast. We also saw in flight, several sightings of what I believed to be white-chested or "Cocoi" herons (*Ardea cocoi*).

We entered the swamp, which was predominated by black mangroves (*Avicennia germinans*), with thousands of their pneumatophores reaching up. Dodging the hundreds of fiddler crabs (*Uca* spp.), we walked on to encounter; black-crested antshrike (*Sakesphorus canadensis*), crested orpendola (*Psarocolius decumanus*), an unidentified juvenile hawk, probably broad-winged hawk (*Buteo platypterus*), plain brown woodcreeper (*Dendrocincla fuliginosa*), yellow warbler (*Dendroica petechia*), brown-crested flycatcher (*Myiarchus tyrannulus*), clapper rail (*Rallus longirostris*), a possible bright-rumped attila (*Attila spadiceus*), golden-fronted greenlet (*Hylophilus auarantiifrons*), ochre-lored flatbill (*Tolmomyias flaviventris*), american redstart (*Setophaga ruticilla*), bi-coloured conebill (*Conirostrum bicolor*), turkey vulture (*Cathartes aura*), pale-vented pigeon (*Columba cayennensis*), yellow oriole (*Icterus nigrogularis*), smooth-billed ani (*Crotophaga ani*) and overhead were cattle egret (*Bubulcus ibis*), little egret (*Egretta garzetta*) and magnificent frigatebirds (*Fregata magnificens*).

We changed locations, and took a short drive to Aripero Wetlands and Aripero Pond. At the pond, we saw; common moorhen (*Gallinula chloropus*), striated heron (*Butorides virescens*), wattled jacana (*Jacana jacana*), green-throated mango (*Anthracothorax viridigula*), white-headed marsh tyrant (*Arundinicola leucocephalia*), smooth-billed ani (*Crotophaga ani*), gray-breasted martin (*Progne chalybea*) and snowy egret (*Egretta thula*). Also a mongoose scurried nearby.

Here, we also met Judy McLean, who lives alongside the pond. Judy and several of her neighbours have organized a "neighbourhood network" to protect Aripero Pond and its environs. She proudly stated that her group won the Rotary Club's "Tidy T&T Contest" last year for the upkeep they do at Aripero Pond. The watch keeps litter and poachers out, and has three goals: 1) to preserve life, 2) to keep the pond and environs natural and in "as is" condition, and 3) to show that humans can peaceably co-exist with nature and wildlife.

Judy invites people to come to Aripero Pond at sunset to see about 300 Scarlet Ibis roosting there nightly. Also resident are many egret, doves, two osprey, several anhinga, and many spectacled caiman, including one giant nicknamed, "The Sub." Freshwater fish include **wabeen guabine** and cuscadoo. The name Aripero is Amerindian for "big plate." The pond is a stone's throw from the original Darwant Well, Trinidad's first producing oil well.

References

- ffrench, R.** 1991. A Guide to the Birds of Trinidad & Tobago. Cornell University Press. 426 p.
Hilty, S. L. 2003. Birds of Venezuela. Princeton University Press. 878 p.
Jones, A. and Sefton, N. 2006. Marine Life of the Caribbean. Macmillan Caribbean Press. 170 p.



Point Lisas Industrial Estate - March 26th 2006

John Lum Young

Point Lisas Industrial Estate (The Estate) occupies about 850 hectares west of southern Couva, California and Phoenix Park, completely swallowing Monkey Point, a bathing spot for villagers about 15 years ago on the west coast of Trinidad. The Estate, though finite in acreage, seems to be always expanding northwards to Carli Bay Road and south towards Savonetta. With foreign investment pouring in (US\$2.5 billion from 1995 to 2000) it seems only a matter of time before the remaining estimated 34ha are consumed by new industrial plants. Existing businesses include world class methanol, ammonia and steel plants, medium sized manufacturers and a range of smaller supporting service companies. This Estate is an important contributor to the national economy.

Interestingly Point Lisas (not The Estate) is one of the points on the Savonetta coastline, a few miles south of The Estate. Presumably the planners did not think that "Monkey Point Industrial Estate" was an asset in marketing their vision. The renaming of Monkey Point Road to Caribbean Drive effectively erased Monkey Point from the map. With our popular culture leanings, historical names are simply dismissed without any apparent effort to understand their significance. (Similarly Bulk Sugar Road in Savonetta has been renamed North Sea Drive.)

No one made arrangements for a formal tour of The Estate. This was unfortunate as it would have been more informative with an official of Point Lisas Industrial Port Development Corporation Limited (Plipdeco) who, in all probability, would have satisfied the many inquiries regarding sound environmental practise.

It is quite likely that an industrial estate the size of Point Lisas will create its own micro climate and the effect of this climate on the surroundings is not clear, and perhaps not monitored. It must be noted though that the mangrove glimpsed through the wire mesh fences appeared healthy and lush.

Most of the heavy industries at The Estate operate closed loop systems. Notwithstanding it would have been comforting to know if liquid fuels and chemicals are stored in areas where the spills can be adequately contained. Similarly storm water should be separated from process water and sewage effluent from waste water containing heavy metals.

Looking at the heat discharged by the towering stacks of the heavy industries one wondered whether vapour recovery systems are used to limit the quantity of volatile organic compounds (VOCs) released into the atmosphere. It is recommended that 90-100% of VOCs be recovered 95% of the time. International emission standards can be consistently achieved by well-designed, well-operated and well-maintained pollution control systems. A Plipdeco official could have answered those questions.

Plipdeco, as the landlord, should also ensure that tenants do frequent sampling and document their findings in an acceptable format to facilitate comparisons to predetermined benchmarks, prior periods and international standards. The World Bank (1995) summarised good environmental practises for industrial estates as follows:

- Encourage the use of vapour recovery systems to reduce VOC emissions.
- Encourage the use of sulphur recovery systems where considered feasible.
- Encourage the use of low-nitrogen oxide burners.
- Encourage the recovery and recycle of oily wastes.
- Encourage the regeneration and reuse of spent catalysts and solvents.
- Encourage the recycling of cooling water and reuse of wastewaters.
- Institute segregation of storm water from process wastewater.
- Encourage the use of nonchrome additives to cooling water.
- Institute spill prevention and control measures.

- Include properly designed storage facilities for hazardous chemicals and waste, including provision containment of contaminated water in case of fire.

Another sound practise is for industrial estates to maintain safe distances from residential areas. For instance 100 m is recommended for small industries with minimal environment hazards and at least 1 km for very polluting industries. This, though, is not possible at The Estate without incurring prohibitive relocation costs, as there are residences whose back yards border with The Estate. It will also be a political quagmire and not even worth attempting. Just hope that there is no major accident.

It would have also been useful to learn Plipdeco's views on industrial ecology, an emerging field of study and practice that helps business become more competitive by improving their environmental performance and strategic planning. Industrial ecology is meant to help communities develop and maintain a sound industrial base and infrastructure without sacrificing the quality of their environment. It also helps government agencies design policies and regulations that improve environmental protection and at the same time build business competitiveness.

Perhaps on the next trip.

References

World Bank. 1995. "Industrial Pollution Prevention and Abatement: Industrial Estates." Draft Technical Background Document. Environment Department. Washington, D. C.



Tobago – April 28–30th 2006 Alison and Peter Melville

The last weekend of April saw a band of TTFNC members crossing to Tobago on 'The Cat' – one of its final appearances in these waters before a return to Canada. The weekend got off to a rather slow start, as the computers at the ferry terminal went 'down' so that passengers had to be checked off manually. However, we departed only(!) an hour late, and after an uneventful voyage were met at Scarborough by Selwyn Gomes and our trio of hire cars for the night drive to Charlotteville.

On Saturday morning, nine of us, plus an American lady on holiday in Tobago, headed for the Tobago Forest Reserve. The drive up from the south coast along the Roxborough-Parlatuvier road and through the reserve is very attractive, although the neatly trimmed verges at the roadside give a rather strange effect. We met up with ~~Rinson~~-Renson Jack, a local forester, who showed us the start of the trail to Centre Peak, just north of the main ridge. ~~Rinson~~ Renson told us that this hill is at an altitude of approximately 566 m, and is therefore the highest point on Tobago; this honour is sometimes claimed by Pigeon ~~Point~~ Hill, but that is only about 550 m high.

The Tobago Forest Reserve was established at the amazingly early date of 1776, and covers some 5,666 hectares. Its status as the oldest protected rainforest in the western hemisphere, however, could not protect it against Hurricane Flora in 1963, which caused immense damage. Almost all the trees, therefore, have grown up in the past forty years, and the forest is not very dense, with most trees still in their youth. In the course of our hike we came across a number of trees that had been uprooted, presumably the result of a more recent hurricane.

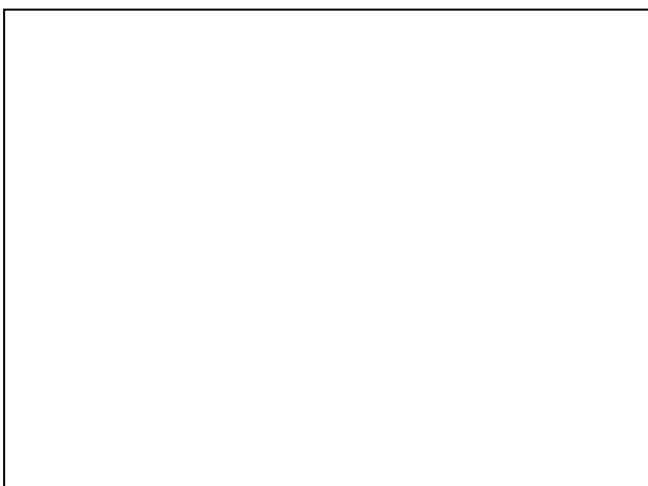
At the start of the trail Dan Jaggernaut pointed out a bush of the crepe coq (*Centropogon surinamensis*) which he said was good to eat. (We have noted that Dan always knows if anything is good to eat – also that at least some of the party will immediately start browsing on it. On this occasion, at least, we did not observe any ill effects on the grazers during the remainder of the

trip.) The next botanical note was that the dominant palm in the forest is *Prestonea Prestoea acuminata*, which is not found in Trinidad, unless planted by man. Dan showed us one of its large, golden-yellow leaves, similar to that on a *Roystonea* palm. He gave us a tip that we could make small children laugh by putting them on a leaf bract and pulling them along the ground, but in the absence of a small child we could not test the truth of this. Further down the path we noted a bromeliad (*Vriesea splendens*) in flower, known as St. Michael's flame. Dan gave a warning about the so-called razor grass (*Scleria secans*) which is really a sedge of the family *Cyperaceae* and can give a bad cut. It was a relief that his demonstration of its dangers did not involve drawing blood or shaving, merely that it would cling to his forearm. However, at a later part of the walk we found this 'grass' rapidly colonises open areas created by tree-falls, and lack of care on the part of a hiker can easily result in slashed hands. We also noted a tree that had been knocked flat by Hurricane Flora but sprouted up again from the roots, thus forming an unusually-shaped tree.

As we walked we could hear a variety of bird calls, but none of the party was willing to identify the birds. However, eventually a Tobago manakin (*Chiroxiphia pareola*) revealed itself, and we saw several more in the course of the walk. These were very attractive birds – black with a scarlet crown and blue back – and they stayed obligingly low and visible, hopping around on twigs in the undergrowth. Even more attractive were the white-tailed sabrewings (*Campylopterus ensipennis*) of which we saw at least two. These hummingbirds are an iridescent dark green, with a lighter blue patch on the throat. One of these birds sat very close to the trail for a long while, allowing us to watch and photograph it. Selwyn was particularly pleased to see these hummingbirds, although others with a more botanical bias seemed unmoved. The White-tailed sabrewing was thought to be locally extinct after Hurricane Flora but it has made a comeback, and now appears on environmental posters in Tobago with the nickname 'Campy'. Selwyn also reported seeing a rufous-tailed jacamar

(*Galbula ruficauda*). Other fauna noted on the way were a stream of tactac ants (*Odontomachus* spp.) crossing the path, and a large brown crab seen at the base of a tree. This was identified for us as a brown mountain crab, which sounds too logical a name to be true. (We should report that we have never heard of rufous-tailed jacamar or tactac ants, but report these names in good faith – what do we know, after all?)

After a comparatively short hike, with only minor detours, we reached our goal. The top of Centre Peak is marked by a concrete pillar with a small metal disc saying '36'. The area was covered by encroaching undergrowth and surrounded by young trees. The location also had a white plastic cross laid out on the



Group on the trail to Centre Peak
Photo by Neil Birbal

Vriesea splendens
Photo by Alison Melville

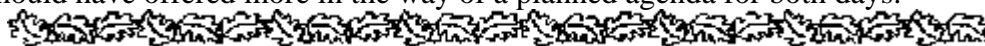
ground to make it visible from the air and a metal red and white banded pole to help find it in the undergrowth. Although the plastic has rather decayed away, the pole was easily seen. Several people used the cutlass to cut back the undergrowth and clear encroaching plants leaving a small clearing, once again visible from the air. We commemorated our achievement by flying the Trinidad and Tobago flag above the TTFNC shirt, and taking photographs to mark the occasion.

We retraced our footsteps to the road, paused at the Forestry hut on the main ridge to refill water bottles, and drove south downhill for about five minutes. There we took another short walk to a swimming hole in a tributary of the Argyle River. On a tree by the river Glen caught a snake, which he placed carefully in a (clean) sock to take back to Charlotteville. There Hans Boos identified it as a cascabel or tree boa, (*Corallus rauschenbergerii*) and we are assured that it was released in a suitable streamside location on the return trip to Scarborough on Sunday.

This marked the end of the organised activities for the weekend, with members finding their own amusement for the remainder of the time. One group of people headed back towards Scarborough and visited Green Hill Waterfall. Most of the party visited Pirate's Bay for a swim or snorkel. The grounds of Man-O-War Bay Cottages were home to a number of lizards and birds, most numerous being the *Chickenus domesticus*. Your reporters took one of the cars along the road west of Charlotteville to L'Anse Fourmi. The road is in the process of having bitumen laid, thus completing the surfaced leeward coast road. We stopped at intervals for short walks and to examine the wildlife, such as numerous flycatchers, motmots – one attempting to swallow a small lizard -, bright green iguanas and an agouti crossing the road.

Hans Boos, Stephen Smith and John Corriea concentrated their attentions on reptiles. These lizard enthusiasts found a juvenile male goumangala (*Anolis richardi*) outside the ticket office at the Scarborough ferry terminal, and also a juvenile male ocellated gecko (*Gonatodes ocellatus*) in a culvert under the Roxborough road, near Gilpin Trace. These are rare, and thought to be endemic to Tobago. On Sunday morning Stephen caught another two ocellated geckos on Flagstaff Hill, one of them a gravid female. Hans reported his impression that Tobago seemed to be lifeless, particularly in respect to reptiles and amphibians. He suggested that *Anolis richardi* may be preying on the smaller animals, also that widespread spraying with insecticides after the 2005 hurricane season has badly affected not merely insects but the birds and other creatures that feed on them.

At about 7 pm on Sunday we started the return home, which involved a crossing on the less-than-luxurious MV Panorama, and an arrival at Port of Spain at 4 am on Monday. This was a pleasant and relaxing weekend in Tobago, but we felt it was an opportunity lost. We have visited Tobago before, and already done many of the things possible when there are only two in the party. We had looked forward to the trip with the Field Naturalists' Club as a chance to do the more unusual walks that you cannot do on your own, as we have been doing in Trinidad. We had hoped to visit some different areas of this ancient forest reserve with those who could reveal some of the secrets of the local flora and fauna, but this was not to be. The hike to Centre Peak was very enjoyable, but it took only a small part of the weekend, and we were left feeling that a weekend field trip should have offered more in the way of a planned agenda for both days.



We have reached Centre Peak.

Photo by Neil Birbal

BOOK REVIEW

LIFE IN A VERY DIFFERENT PLACE

Tim Flannery 1998. *Throwim Way Leg*. Melbourne: Text 326 pp. ISBN 1-875847-62-6
[Fifth in a series of "naturalist-in" books.]

Especially in accounts from the earlier periods of naturalist exploration, one is often struck by the hardships of life in the field. Not just the occasional episodes of extreme peril or bad luck but the dull, everyday miseries that seem to go on and on. To the modern reader, sitting in relatively safe, comfortable circumstances, there unavoidably arises the question "Why on Earth did they bother in the first place? And, when the going got rough, why didn't they just give it up and return to civilization?" The answer is that most did not bother, and some did give it up. But the question of why the hard-core naturalists persevere(d) when, it would seem, it could not possibly be worth it, remains a serious one.

In most such accounts, it is simply taken for granted that it is worth it, and the reader is none the wiser, but Flannery addresses the question directly. Trying to follow radio-collared tenkile tree kangaroos in the Torricelli Mountains, they found that conditions did not permit reliable signals, so that they got no usable data.

"Added to these technical problems were the logistical difficulties of life at the camp. It was almost impossible, for example, to dry anything. For weeks Viare and I went to bed wet and woke up wet. After a month or more, the strenuous activity and poor diet began to affect our immune systems. I became troubled with an ear infection which made it difficult to hear and sleep.

"Worse, we became prey to tropical ulcers and deep, incredibly painful boils which added further to our misery. [Details on the etiology and effects of the boils.]

"There are, however, compensations to it all. I remember climbing to the ridge crest one morning when a light mist hung in the low forest canopy. The trees were covered with moss, their gnarled branches reaching barely seven metres above the ground. One of the tallest plants was a palm which grew only on the ridge tops, its graceful, feathery fronds rising free of the dense, small-leaved canopy. At this season it was heavy with fruit, the great bunches of bright red berries hanging in clusters which seemed to glow in the diffuse light.

"Suddenly I saw a movement. A large black bird with a long tail and beak dashed round the trunk of the palm. ... It carefully chose one of the ripe red fruit and, breaking it off with its long, curved bill, swallowed it whole. This was the near-mythical Black Sicklebill Bird of Paradise (*Epimachus fastuosus*). Flashes of deep blues and reds burst from the iridescence of its feathers. Enchanted, I watched it for long minutes before it flew out over the valley."

The author, a theriologist with the Australian Museum, has made many trips to remote parts of New Guinea since 1981. He shows a keen attention to local peoples and an appreciation for their traditional ways, alongside his main passion for the mammals of New Guinea, especially the marsupials. Aside from missionary influence, the natives are threatened by timber companies and the government of Indonesia, and Flannery cares what will become of them. He knows them personally, gives their names and tells things about them. Personally.

This is a tale of field work as it really is. The fascinations, the frustrations, the fabulous adventures and the mishaps. There are many illustrations of his seriousness of purpose. Perhaps the most striking has to do with malaria. Early in his scientific career, Flannery decided that if he was going to explore New Guinea well, malaria would be a fact of life. There was no way to get around it. So he took his medicine, but he expected to catch the disease in time, which he did, and now he deals with it, as part of the cost of doing business.

This is an earthy account. For example, Flannery points out that very interesting observations often happen when one stops walking to stand and take a leak. I have certainly noticed this many times, and I expect that many of you have too, but who else has said so in print?

This is one of the best books of naturalist exploration I have read. In hard-core-ness, it is right up there with Gordon MacCreagh's *White Waters and Black*.

Christopher K. Starr
Dep't of Life Sciences
University of the West Indies
ckstarr99@hotmail.com

LECTURE SUMMARIES

The Little Creatures who run the World - May 11th 2006

Christopher K. Starr
University of the West Indies, St Augustine, Trinidad & Tobago

Ants are a single worldwide family of aculeate hymenoptera, the Formicidae, comprising about 10,000 known species (239 known in Trinidad, although this is undoubtedly well below the true total). They are social insects, usually marked by distinct female castes.

In the most usual colony cycle, a new colony is founded by a mated queen on her own. She secludes herself in a small nest chamber, lays a few eggs, and rears the first small workers from breakdown products of her wing muscles. With the emergence of these first workers, the colony enters a very new phase of development and is poised to grow rapidly if conditions are suitable. In time, the colony produces its first set of males and new queens, which can in turn give rise to new colonies. This process can continue for the life of the queen, which in some species lasts many years.

Although workers of many ants have functional eyes and make use of visual information in their everyday activities, much of what they do is in darkness, and many ants have reduced eyes or are entirely blind. They make up for this by utilizing a great deal of chemical information, including in their social interactions. That is, much of their communication is by way of chemical signals, or pheromones. Ants are richly supplied with glands and synthesize a great variety of pheromones.

The presence of a large number of edible brood unavoidably attracts predators, so that ants have a variety of ways of defending the colony. In the primitive conditions, this is by means of stinging. In several lineages, however, this has given way to alternative means, including other chemical defences, and in many ants the stinger is lost or reduced.

Ants are a major feature of all but the coldest land habitats. Especially in the humid tropics, they are abundant in huge numbers and dominate the ecosystem in a variety of ways. Most importantly, their sociality makes them the most important consumers of invertebrate animals. In a very real sense they run the natural world.



MANAGEMENT NOTICES

SPECIAL THANKS

The Library has received four publications:

- Marine Turtle Newsletter – April 2006
- The Ottawa Field Naturalists' Club Trail & Landscape - June 2006

Thanks to **Patricia Frederick**, daughter of the late Theodore Francis Farrell for donating:

- The Natural Vegetation of Tobago B.W.I – Ecol. Monog. by Stanley Beard 1944 (photocopy)
- The Natural Vegetation of Trinidad by Stanley Beard 1946 (photocopy)
- Native Orchids of T&T by Richard Evans Schultes 1960 (photocopy)
- Trinidad Naturalist Magazine by Stephen Mohammed

and various other publications and slides

Thanks also to **Hans Boos** for copy of Index of Articles from Naturalist Magazine 1975 to 1985 (61 issues).

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.

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>

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.

**WELCOME
NEW MEMBERS**

William L. Murphy
Sabita Narine
Bruce Packard
Amy Giselle Heeraman
Veerle Van Den Eynden

Missing copies of Naturalist Magazine needed for library

- 1976 Vol. 1 No. 5
- 1981 Vol. 3 No. 9
- 1987 Vol. 6 No. 12

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

Letters issued by the Club on its position on various environmental issues can be viewed on the Club's website: www.wow.net/ttfncc on the "ENVIRONMENT PAGE".

THE CLUB CELEBRATES ITS 115TH BIRTHDAY

on
Members Evening – July 13th 2006
Members are asked to bring photos, slides, books, magazines, specimens etc. to share with others.

Your 2006 Annual Membership Fees are Due!!

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

Volunteers needed... to type index for period 1986 to 1988 – 16 issues



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_anneowlal@yahoo.com 2) ttfncc@wow.net.tt, or any member of the Management Committee.

Deadline for submission of articles for the 3rd Quarter 2006 issue of the Bulletin is September 1st, 2006. Please note that all field trip reports for this quarter must be in by the deadline, with the exception of the August report.