



# THE FIELD NATURALIST

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

April - June 2008

Issue No: 2/2008

## **Presentation to Richard french by the TTFNC at the Asa Wright Nature Centre - March 29 2008**

*Paul Budgen*

Noted naturalist and author of the 'definitive' bird guide to Trinidad and Tobago, Richard french, returned to the Asa Wright Nature Centre in Arima, recently. Members of the Management Committee of the Trinidad and Tobago Field Naturalists' Club (TTFNC) and other long-standing members took the opportunity to meet with Richard. The group included Reginald Potter (President), Shane T. Ballah (Secretary), Paul Budgen (Assistant Secretary), Elisha Tikasingh and Lester Doodnath.

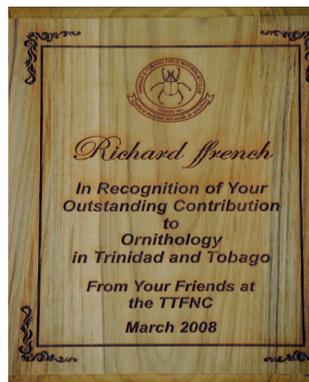
Reg Potter, presented Richard with a plaque to mark this occasion, in the 50<sup>th</sup> year since he first visited Trinidad, to work as a teacher at the Texaco school in Point-a-Pierre and joined the TTFNC. His wife, Margaret, accompanied Richard as she did back in 1958, when the frenches remained in Trinidad until 1985, before returning to the UK. It was during this period that Richard established himself as a celebrated ornithologist and author, with the publishing of 'A Guide to the Birds of Trinidad and Tobago'.



Richard and Margaret french, AWNC, 29-3-2008

*Photos courtesy Paul Budgen*

At the presentation, which also included Ian Lambie, a friend, naturalist and former TTFNC President and Secretary, Richard and Margaret spoke fondly of their research activities, which took place over many years and in all corners of T & T, including many of the islands. Remembering in particular the large numbers of birds encountered during this time, the frenches are clearly concerned with the conservation of species and the measures that are required to ensure a continued presence of birds with which they are all too familiar, within T & T. Listening to these anecdotes and the enthusiasm with which they were delivered, was inspirational for those of us fortunate enough to have had the opportunity to meet this world-renowned ornithologist and his wife and partner throughout his life's work, Margaret.



Close up of Plaque



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## Editor's Note

### Changes

The QB forges ahead as we seek to transform its look and improve its content. From the past to the present the style of the articles and format of this the main newsletter of the TTFNC, has for the most part remained unchanged. The articles have traditionally held a lighter feel with writers presenting a more relaxed take of club trips and events. The occasional scientific jargon, tossed in to satisfy the scientifically inclined amongst us, further enhances its educational value.

Despite the recent changes there remains considerable room for growth and improvement. At a recent meeting, of the Editorial Committee for the Living World journal the conversations inadvertently strayed onto the QB resulting in the expression of some interesting views and comments

on its potential and on possible areas for improvement. I want to share with you some of these suggestions which I must say upfront I endorse fully

1. Improvements in the quality of the paper
2. Introduction of colour photos
3. Sale of the QB to non-members
4. Enlisting the support of sponsors to pay for the above improvements.
5. The progression to an electronic issue available via subscription.

I must confess the last point was not mentioned at the meeting but I have harboured it in my thoughts for some time now and think it worthy of mention.

## A Thorny Issue (answer to the mystery photo)

A few individuals were able to guess the mystery objects in the back page photo of the last issue. The items were a variety of thorns found on the trunks of three common tree species:

1. Immortelle (*Erythrina poeppigina*),
2. Sandbox (*Hura crepitans*) and
3. Kapok (*Ceiba pentandra*).

All three specimens were encountered on the Botany group trip to North Manzanilla in early 2007.

Thorns are interesting growths which primarily function as defense mechanisms in a number of plants. They can be found in a number of locations oftentimes offering protection to 'vulnerable' plant parts such as buds, leaves, and reproductive

parts such as fruit.



In some plants such as the Bulls horn acacia the 'thorn' acts as a nesting site for symbiotic ants (*Pseudomyrmex* sp.) Indeed they can be quite variable in size structure and form.

How often has the unaccustomed hiker on one of our trips encountered troublesome thorns? Those of the wait-a-while (*Smilax* sp.) are particularly nasty and can inflict severe lacerations to the skin. Other quite nasty thorns can be found on the vine-like palm *Desmoncus* sp. Rosea (*Bactris* sp.)

Every encounter reinforces the message "keep clear!" Effective? Indeed!

## Mt. St. Benedict & Coopers - March 30, 2008

Damian Robinson

Club Trip



The March monthly field trip was to Mount St. Benedict, which is located on the southern facing slopes of the Northern Range. All of the twenty-five (25) members and guests that were present for this field trip finally gathered atop the mount at around 7:30 a.m. The brief delay arose when separate groups chose to park their vehicles at the Church and at the Top of the Mount complex respectively. The former group was furthest from the meeting point and encountered heavy rainfall en-route to the others, the day having begun very overcast and rainy. Once the groups converged and the rain lessened Professor Cooper got things going by pointed out a tarantula he had sighted on a nearby wall. After hearing a bit on their biology we descended from the car park to a well marked benched trail through the forest and commenced the St. Benedict field trip.

The dominant vegetation that was present at the beginning of the trail was mostly seasonal evergreen tropical forest, but with some remnants of a cocoa plantation. As the group made its way along the hillside trail we observed some sort of derelict water collection apparatus and structures in the valley bottom that appeared to be the former water supply for Mount St. Benedict. Rusted pipes lead from this water collection point to the Abbey. As we walked further up the trail we encountered the singing chirps of a Yellow-throated frog (*Mannophryne trinitatis*). This frog is in the same genus of the Bloody Bay Poison Frog (*Mannophryne olmonae*) which is endemic to Tobago. Dr Cooper explained that tests done on *M. trinitatis* found the chytrid fungus, *Batrachochytrium dendrobatidis*, which causes the amphibian disease chytridiomycosis. This disease may be responsible for the declining populations of *M. olmonae*, as that species is now critically endangered; habitat destruction may also be a contributing factor for its decline in Tobago. Various bats were also seen



Participants make their way through the pine.

Photo courtesy Shane T. Ballah

flying around under the forest canopy.

After trekking through the relatively dense forest, contrasting vegetation was entered, in which only stands of Caribbean Pine (*Pinus caribaea*) were present. This vegetation was planted as part of the Forestry Division's reforestation programme. A forester once told me, whilst on an internship at the Forestry Divisions North-West Conservancy that different species of trees were initially used in reforestation projects, but the only one that survived the almost yearly dry season bushfires was the Caribbean Pine. Therefore this species was chosen for re-vegetating these once degraded and deforested hillsides. This ability to survive bushfires was evident in the area we were hiking, which appeared to have been recently ravaged by fire. The reduced undergrowth and leaf litter, burnt pine needles and scorched trunks were testimony to this. A Club member noted that one clear disadvantage of the planting of only this species, which is not native to Trinidad and Tobago, was the reduction in biodiversity typically seen in local natural forests. The area could well be described as being "ecologically dead" the vegetation having created a hostile environment for local

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## Mt. St. Benedict & Coopers - March 30, 2008

Damian Robinson

Club Trip



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fauna.

The trek up the steep Caribbean Pine hillside forest soon transitioned to gently sloping dense tropical forest, similar to that first encountered when the hike began. A caterpillar of an unidentified moth was found making its way along the foliage with its armour of long spiny bristles that extended from the body segments of alternating orange and black colours. In the distance we saw, through the undergrowth, what appeared to be a very well kept trail. These trails were almost smooth and are created and used by the leaf-cutter ants (*Atta cephalotes*) to forage for leaves which are transported back to the nests and used to cultivate a fungus that is a food source for the ants. Along our main trail we eventually reached a fork. One path led down back to Mount St Benedict whilst the other led up to the abandoned remains of a building. The ruins, which were said to be on the summit of Mt. Tabor, comprised mainly the foundation of the structure. This was the former residence of the Abbot. The only distinguishable architectural features of the remains were a retaining wall with buttress support and a chamber that someone could barely fit into. This chamber had a semi-circular arched ceiling made of stone. Within the remains of this structure one of the many tall trees that grew was of particular interest. When the bark was slashed with a cutlass, a dark red sap poured out that closely resembled real blood. This species, commonly known as the Blood-wood (*Croton gossypifolius*) can be used for making colour dyes and has recently been discovered to have medicinal applications. The mango trees observed were indicative of the human influence in the forest.

Some of the birds seen in this area include the Golden-headed Manakin (*Pipra erythrocephala*), Short-tailed Hawk, (*Buteo brachyurus*), Orange winged parrot (*Amazona amazonica*), and the

White-Lined Tanager (*Tachyphonus rufus*).

When the rest at the Mt. Tabor summit, with all the wonders it gave us, was finished, the group commenced the walk down the hill, and more surprises awaited us. A few persons decided to follow the trail that went higher along the ridge. As we walked through the dense forest we entered an area where the understory was almost as tall as some of the people. The vegetation consisted mainly of ferns and small plants with wild flowers, which were lightly interspersed with palms and medium sized trees. Some plants of interest there were the Mountain Rose (*Brownea latifolia*) and various savannah flowers. What made walking through this area so relaxing, but surreal, was the heavy fog that hung low over us. It appeared as though we were in a cloud forest. The air was cool and every breath of it felt replenishing. The only thing missing from that landscape was the calm sound of a light breeze over the plants. Instead the sound of loud music emanating from the Maracas Valley below overwhelmed and polluted our senses. More birds were encountered here including the Turquoise Tanager (*Tangara Mexicana*) and the Squirrel Cuckoo (*Piaya cayana*).

More surprises greeted us when we walked further down the trail, away from the low vegetation and back once more into the reforested area of Caribbean Pine. What made this second encounter with the pines different from the earlier one, was the fog that was still hovering over the hills. The fog-filled pine forest is not the typical vegetation associated with Trinidad. The feeling when we walked through was as if we were in a totally different country, maybe in a whole different biome, where such imagery is the norm. As we progressed through the pine the rain started to fall heavily, just as we reached the Forestry Divisions fire tower. As some of us began to bravely climb the eighty-eight (88) steps of the flimsy looking

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# Mt. St. Benedict & Coopers - March 30, 2008

Damian Robinson

Club Trip



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structure, we soon realised what a beautiful view was revealed once we were above the crowns of the pine forest. Even through the pouring rain, the panoramic view of the Caroni Plains, Swamp, the Central Range, and the San Fernando Hill, barely visible on the horizon overwhelmed us. The sights of all this really made Trinidad seem so small. After climbing down the stairs we walked the remaining short distance down the hill and back to the car park. At this point the day's field trip to St. Benedict's was over, and it was now time to be heading off to the Coopers' residence where the Club was invited for some good old English tea and a fun game of cricket.

The time at the Coopers' residence was time well spent. After spending a wet day in the field it was a great relief and pleasure to be invited in such a warm and welcoming atmosphere. The warm drinks were a life saver and the many cakes were very tasty. The day became even more entertaining when the game of cricket started - it was the Trinidadians vs. The Rest of The World. Sadly the home team lost to the Rest of The World, which



View atop the hill through the pine.  
Photo courtesy Shane T. Ballah

prompted some vigorous appeals and some mischief among the onlookers.

It was indeed a fulfilling day, and on behalf of the Field Naturalists' Club I would like to thank Margaret and John Cooper for that wonderful time.

## Species listing of plants & animals encountered – Mt. St. Benedict – Club Trip March 30 2008

Family	Scientific name	Common Name	Family	Scientific Name	Common Name
Aromobatidae	<i>Mannophryne trinitatis</i>	Yellow-throated frog	Pipridae	<i>Pipra erythrocephala</i>	Golden-headed Manakin
Aromobatidae	<i>Mannophryne olmonae</i>	Bloody Bay Poison Frog	Accipitridae	<i>Buteo brachyurus</i>	Short-tailed Hawk
Pinaceae	<i>Pinus caribaea</i>	Caribbean Pine	Psittacidae	<i>Amazona amazonica</i>	Orange winged parrot
Formicidae	<i>Atta cephalotes</i>	Left-cutter ants / Bachac	Thraupidae	<i>Tachyphonus rufus</i>	White-Lined Tanager
Euphorbiaceae	<i>Croton gossypifolia</i>	Blood-wood	Thraupidae	<i>Tangara mexicana</i>	Turquoise Tanager
Leguminoase	<i>Brownea latifolia</i>	Mountain Rose	Cuculidae	<i>Piaya cayana</i>	Squirrel Cuckoo



## Chaguaramal - April 27, 2008

John Lum Young

Club Trip



Chaguaramal is the fourth tallest peak in Trinidad. Nobody could remember its height, but on checking the map on our return, it is shown as 2819 feet.

In the soft morning light while on the road ascending the foothills of the Northern Range, we stopped on the first climb along Heights of Aripo Road and admired the blossoming poui (*Tabebuia serratifolia*) to the west. The bright yellow flowers from the numerous trees stood out on the dark green slopes of the Northern Range. The poui, a native ornamental, drops all its leaves and replaces them with bright yellow inflorescences. What a sight to behold!

Past Aripo Village we observed that cocoa (*Theobroma cacao*) plots along the roadway were well maintained. After the junction of the steep hill to Millette's house the cocoa acreage was replaced with christophene (*Sechium edule*).

From this point we continued on foot. It seems like almost all the grasses and shrubs on the roadside were in bloom. There were red flowers from crep coq (*Centropogon surinamensis*), the pinks of impatience (*Impatiens* sp.), the greens of shadon beni (*Eryngium foetidum*), the whites of horse poison (*Hippobroma longiflora*) and the purple of Jacob's coat (*Coleus* sp.). The sweep of flowers really lifted one's spirit and brought the old adage, the good things in life are free, to mind.

Climbing the slopes above the cultivated and recovering areas we soon entered the forest. The toporite (*Hernandia Sonora*) was in fruit and Dan Jaggernaut demonstrated the whistling sound the wind makes as it blows into the vent of the dangling fruit.

At the junction of the trail to Cerro del Aripo someone placed an arrow sign to Aripo Caves. However the sign points in the wrong direction

because that was the only "flat" surface to nail the marker. Sadly this discourtesy is reflected on official signage on our nation's main roads, so what attitude can you really expect in the middle of the forest?

Somewhere along the way Dan had picked up the fruit of the pois doux (*Inga ingoides*) and he proceeded to point out its characteristics. *I. ingoides* is a medium-sized evergreen tree growing to a height of 15m with a girth of up to 2m (Quesnel and Farrell 2000). It is the most common of the 9 *Inga* species in the country. The pod is about 24cm long, more or less cylindrical, grooved and densely populated with rusty hairs. It looked like a large ochro (*Hibiscus esculentus*) really. He peeled opened the fruit and shared around the white sweet tasting pulp that surrounded the 1cm long dark brown seed.

Auburn Nash had plucked a handful of crabeye grass, with seed, which he also demonstrated to the group. His birds relish the change in diet.

From this point, marked by the huge mammee seepot (*Mammea americana*), the steep ascent to Chaguaramal began. This climb would surely awaken those who still felt sleepy after rising so early. The mountain being mainly limestone has some very steep sections in the ascent and Dan tied ropes to assist on the steepest slopes. On the ground we passed over the fallen fruits of the guatecare (*Eschweilera subglandulosa*). The fruit is an urn-shaped, woody capsule, about 3cm long, with a cap that shrinks and falls off when the fruit is ripe (Quesnel and Farrell 2000).

The summit of Chaguaramal was generally flat and consequently well populated with trees, obscuring views of the nearby peaks to the north, east and west, but by careful positioning some views were possible, including glimpses of the devastation

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## Chaguaramal - April 27, 2008

John Lum Young

Club Trip



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caused by sand quarrying in the Valencia area to the southeast. Plants at the summit included mountain bamboo (*Arthrostylidium* sp.), mountain cashibo (*Calathea* sp.) and *Vismia* sp. and an exotic bromeliad is found at the top of the precipitous northern edge of the peak.

At the top a 20mx20m area was cleared around the trig mark. The clearing seemed to be maintained, and on the flagpole the national flag seemed to be relatively new. At the trig mark the GPS read 941m, which must include some error.

Some excited whistling kept coming from a particular corner but the bush was too thick for us to get closer. Eventually a short-tailed swift (*Chaetura brachyuran*) darted above the trees allowing us to identify the songster. With that we returned down the mountain.

### References:

**Quesnel V.C. and Farrell T.F.** Native Trees of Trinidad and Tobago. Trinidad & Tobago Field Naturalists' Club Second Edition 2005. 156 p.



Trip participants stop for a rest - Chaguaramal  
Photo courtesy Reginald Potter

More photos on Pg 13



### Species listing of plants & animals encountered – Chaguaramal – Club Trip April 27 2008

Family	Scientific name	Common Name	Family	Scientific name	Common Name
Leguminosae	<i>Tabebuia serratifolia</i>	Poui	Leguminosae	<i>Inga ingoides</i>	Pois doux
Sterculiaceae	<i>Theobroma cacao</i>	Cocoa	Malvaceae	<i>Hibiscus esculentus</i>	Large ochro
Cucurbita-	<i>Sechium edule</i>	Christophene	Clusiaceae	<i>Mammea americana</i>	Mammee seepot
Campanu-	<i>Centropogon surina-</i>	Crep coq	Lecythida-	<i>Eschweilera</i>	Guatecare
laceae	<i>mensis</i>		ceae	<i>subglandulosa</i>	
Balsamina-	<i>Impatiens</i> sp.	Impatience	Poaceae	<i>Arthrostylidium</i> sp.	Mountain bam-
ceae					boo
Apiaceae	<i>Eryngium foetidum</i>	Shadon beni	Marantaceae	<i>Calathea</i> sp.	Mountain cashibo
Campanu-	<i>Hippobroma</i>	Horse poison	Guttiferae	<i>Vismia</i> sp.	
laceae	<i>longiflora</i>				
	<i>Coleus</i> sp.	Jacob's coat	Apodidae	<i>Chaetura brachyuran</i>	Short-tailed swift
Hernandi-	<i>Hernandia sonora</i>	Toporite	Bromeli-		Unidentified bro-
aceae			aceae		meliad

## Venezuela - 2007 part 2

*Kathleen Hinkson*

*Overseas Trip*



**P**art 2 in a three part series documenting the journey of club members in Venezuela from the Paria peninsula through to the interior. The story is told in the colloquial style of Kay Hinkson, club member and avid bird watcher.

### FRI. 13<sup>TH</sup> JULY: DAY 3 Continued

We arrived at Posada La Ruta del Cacao wet and hungry and promptly gave ourselves a well deserved proper shower and shampoo, notwithstanding the intermittent flow of water coming out of the tap.

Dinner was a-ways off at 8.30 p.m., so to fill the time, we went to the store next door, purchased some aperetifs which we downed with some cutters, (tuna, kippered snacks and pita bread) which Janice had stored in her emergency pack. A portable cassette player belted out the local music, to which we "bailared". At 8.30 p.m. we journeyed a short distance to Restaurante El Picoteo de Lyly, where we were seated poolside. However dinner was not served until 10 p.m.! It was just too much food too late at night for most of us to do justice to the very sizeable portions. By the end of the meal, we were all exhausted from both the events of the previous night and the past day and so we headed straight to bed.

### SAT. 14<sup>TH</sup> JULY: DAY 4

The weather improved considerably, from cloudy, drizzly days at sea, to hot and sunny. After breakfast formalities were over we boarded a chartered bus, a larger one that held us all together with our luggage, and proceeded on to Caripe. Our main objective in this town was a visit to the Guacharo Caves (Oil birds). We drove along the coast with beaches to our right and mountains to the left. Some barrack type housing settlements were visible as we stopped along the

route for some Kodak moments. Occasionally our route took us inland through mountainous country, which was not unlike our own winding Maracas Road, but smoother. A small airport came into view, just as I had mentioned that I had not seen one airplane since our arrival. Cacti dotted the landscape. A huge statue of Saint Augustin loomed near to the facilities of our pit stop, and all we could find out about him, was that he belonged to the Catholic Church.

The maxi taxis, called locally "Perreras", were in fact pick-up trucks outfitted with cushioned seats in the tray and a hard top cover. At the entrance to some "Hot Springs" after we were refreshed and continued on, there was a beautifully landscaped area which housed a few statues, including Moses, the Sphinx, water carriers and a swamp



Entrance to the Oil Bird caves in Caripe  
*Photo courtesy Reginald Potter*

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## Venezuela - 2007 part 2

*Kathleen Hinkson*

*Overseas Trip*



*(Continued from page 9)*

that was in some way associated with the Hot Springs. The vegetation was different, and Reg suggested, that it could have been because the water was saline. We only supposing'!!

Our next stop was at the large town of Cariaco, where we shopped for an hour at the Calle De Las Artesanias, and purchases of hammocks, quatros, CD's, jewellery and craft were made. After leaving Cariaco, we travelled a stretch of 'nothing' road, only bush, until we arrived at a lake, where we learnt that the water is used for generating electricity in the town of Cumana. We whizzed past sparsely populated towns, one of which was Santa Cruz, heralded by an Arch which spanned the roadway. At this point we moved from Estado Sucre into Estado Monagas to a fairly sizeable town called Sabana de Piedra, which nestled amidst a backdrop of beautifully manicured mountains. At first it was surmised that the rocky cliffs, were covered with moss, or to be ridiculous, "how did they mow them thar mountains?!" We later discovered that many animals graze there!!

At 1.45 p.m. we arrived at the caves in Caripe, but decided to "do" lunch first as we were all ravenous by this time. Restaurant La Solana was close by, so we dined there, and at 3pm. we arrived at the Parque Nacional del Guacharo. These caves are home to 18,000 Oil Birds. We entered the cave with our guide, named Rosa, who pointed out different shapes made by the stalactites, such as Jesus Cristo and Pelicans. A couple of baby guacharos fell out of their nests. The birds seemed angry, so much screeching. The floor surface was wet and slushy with guano, seeds and various unidentifiable matter. After the cacophony, we moved into another section called the Silent Gallery, where we were instructed to use our "erotic imagination"! There were distinctive phallic symbols, leaning Tower of Piza which ended in the Salon of Breasts (mucho) perfectly shaped. Fact



Old fort.

*Photo courtesy Reginald Potter*

has it that it has taken 140 million years for these stalactites to form such unique contours. The length of the walk underground measured 1.5km, but no one goes further than the Silent Chamber, as legend has it, that one Alexander Humboldt, a German scientist who sailed to Venezuela in 1799, wanted to lead the Indians further into the cave to the Last Chamber, but they, being so superstitious, refused, because their ancestors died in there and their souls live on. So that's "taboo".

At 5 p.m. we were out of the Cave, and greeted at the entrance by a choir of indigenous people singing the National Anthem in their language. (we were unsure if it was the Anthem of Venezuela, or their own Anthem.) We gave ourselves a "lick and promise" at the rinse off taps, until we could get to our hotel. At 5.15 p.m. we boarded our bus and headed for the hotel. No sooner had we gotten used to our plush surroundings at Hotel Campamento, we were informed that we were at the wrong hotel. We were not the expected German tourists, so we had to re-pack and "buss it". Hiccup! Our 30 minutes of luxury was short-lived. At this point it was decided by our tour guide, before heading to our designated "digs",

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## Venezuela - 2007 part 2

Kathleen Hinkson

Overseas Trip



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that we return to the Parque Nacional to view the flight of the Guacharos, when they leave the cave to gather seeds from the palms. We were advised to wear long sleeves as it would be a fairly nippy evening. The entire scene, I can only describe as "awesome"! At 7 p.m. we returned to La Solana restaurant for dinner, where we had lunched earlier in the day. At 9 p.m. everyone was flagging from the many hours spent traveling, shopping and walking the caves, so it was on to the hotel which we had some trouble locating, as it was situated in some backwoods. We eventually pulled into the driveway and Oh! for those accommodating boatmen who toted our luggage. In short shrift, we went from the lap of luxury to a medium range hotel. But... a plus, there was lots of water available in the shower, (hot/cold). We drifted off to sleep to the strains of guitar music and singing. There was a BBQ by the pool. Tomorrow would be another long drive to Cumana!

### SUN 15<sup>TH</sup> JULY: DAY 5

We awoke to the sound of birds on a cool, but clear, sunny morning. The air temperature had dipped considerably during the night. The beauty of this place had not been noticed on our arrival, as it was late and we were exhausted. From the verandah of the building, the scene was of an old but gracious hacienda, basic and rustic, nestled between high peaked mountains. Landscaped grounds hosted many laden fruit trees. Birds cheerily flitted from tree to tree, and the sound of the noisy cocoricos reverberated through the silent air. On the mountain side facing the ranch, are the words "LA CORADENA formed in white painted stones, very picturesque, that being the name of the estate. At the pool entrance was an old buggy with the insignia of La Coradena, beautiful rose plants with the most vivid colours and the hanging balisier which bordered a shrine. It was so delightful that we were not averse to just hang-

ing about there for the day.

Breakfast was a work of art. Antonio, a 12 year old who spoke fluent English, and lives in Florida was visiting his dad who runs the place, and helping out, admirably so. On the menu were arepas, cheese, scrambled eggs, freshly squeezed fruit juices and fruit, black beans, plantains, café and tea. Fresh cow's milk was brought across in a bucket for viewing; we had just missed the action. On the mountain side, a sabanero (cowboy) was seen herding cattle for grazing; there was also a play park for the children (ninos), the access being a bridge, with a sign that read "Bienvenidos, por favor, adquiera su ticket"

Translation: (Welcome, please acquire a ticket). It was sad leaving La Coradena, as there was much exploring to be done. We could have walked into the mountains from the back of the estate where a kitchen garden was planted with mainly tomatoes and all types of herbs.

At 9.13 a.m. we departed. It was funny that we almost always left one place for another at the same time, and this was not planned. On to the ATM machine, people were out of Bolivares after the shopping spree at the Artesanias the previous day. There was a promise of strawberries and cream after our tour of a coffee plantation. En route, we saw some meticulously tended rose gardens in an area of suburbia, where the Real estate seemed to be owned by the more affluent. The temperature here definitely favoured roses. Another pit stop at a petrol station was combined with a Kodak moment for a gigantic statue of a guacharo, right smack at the crossroads. Even though it was Sunday, quite a few stores and supermarkets were opened for business.

On our arrival at the Hacienda Gilberto - Café del Jardin, coffee plantation, we had a spot of bother trying to raise someone to open the gate. On our

(Continued on page 12)

## Venezuela - 2007 part 2

Kathleen Hinkson

Overseas Trip



(Continued from page 11)

guided tour through the estate, we saw 4 month old plants which were at the stage for planting and larger trees with beans ready for harvesting in November. Two types of beans are grown, the Robusta which grows in clumps along the stalk, while the Arabica, which makes a high grade coffee is spaced out along the stalk. There are many large trees grown on the estate for shade, many of them being fruit trees such as five finger, mango, red cherry, pomeroac and guava. No chemicals are used.

The mill was the next operational stage. It takes 24 hours for the beans to be dried. 236 kilos when roasted is reduced by weight to 36 kilos. The grinding and packaging machinery was next. For distinction the whole beans were packed in green bags and the ground coffee, in red. We made some purchases of the finished product, said our "thank U's" and departed.

A hilarious moment occurred while we waited for Cesar to conduct some business. Darwen the bus driver, played a CD with a tune entitled Juanita, needless to say Juanita dancing and prancing earned the name, "Juanita, Lokita, Chikita." To the promised, (yummy) strawberries and cream. El Rincon de Walter-El Original was the place for that. There was a steady stream of customers, notwithstanding that next door at El Palacio de Las Fresas was the competition. It was surely a promise that was over delivered.

At midday, we set off for a 3hour drive to Cumana through mountainous country and winding roads. We passed an all sport stadium and visited a park where stood a statue of Fray Geronimo de Muro Capuchino Arajones who apparently brought Indians to that spot and was paid a high tribute by a visiting baron. He died in 1739. A river flowed parallel to the road under a Bailey bridge where one could see people cooling out



Coastline Venezuela.

Photo courtesy Reginald Potter

and doing laundry. A "stinky" smell assailed our senses and Reg got "up close and personal" to discover a sulphur Spring. This town was called San Antonio located in a lovely valley with grassy mountains and bearing a housing scheme with brightly painted walls in fluorescent colours. At this point we were crossing back and forth from Edo. Monagas into Edo. Sucre. Just past a Guardia Nacional outpost, (of which there are many) Reg noticed that there must be a CEPEP programme, because of the many huge white painted stones. In the town of Montes, there seemed to be some sort of show taking place, and as a matter of fact, all along the journey there were groups of children in festive "get-up." We were informed that it was El Dia del Ninos (day of the children). It was cold in the coach, but the music warm.

At 3 p.m. we arrived in Cumana, a more prosperous town with a population of approx. 140,000 thousand. There is a new highway, library, museum, housing developments, new condos and brightly painted "plannings." It was difficult finding an open restaurant on Sunday. Finally Tasca restaurant was accommodating. The very tasty meal of cassava, cole slaw, dumplings and rotisserie

(Continued on page 13)

## Venezuela - 2007 part 2

*Kathleen Hinkson*

*Overseas Trip*



*(Continued from page 12)*

chicken was well received. Music played, people danced, a joyful atmosphere. Blocked streets greeted us as we proceeded to our hotel, because of the Children's Day celebrations, so we decided to pay a visit to Fort San Antonio. There we got the "low-down" by the caretaker on the history of Cumana. It is the capital of Sucre state and stands on the River Manzanares. It is probably the oldest European town in South America and the first city in Venezuela. Founded in 1523 as Nueva Cordoba and was burnt by Raleigh in 1595. It has suffered severely from earthquakes, one as recent as 10 years ago, measured 6.9, and it is claimed that the earth opening up and people fell in.

Another fort - Santa Maria, is connected by a tunnel which is no longer operational. A theatre was destroyed in the 1929 earthquake, but a cathedral was built in its place. The prison is now a picture gallery, taken from the archives of folklore at the Universidad de Oriente. The First President of Venezuela, Jose Antonio Paez, was housed in this prison. Prisoners made cigars on a machine that was on display, said to be 102 years old and built in 1820. One hundred (100) cigars could be made in 6 hours. Venezuela is so rich in history that we barely managed to scrape the tip of the iceberg, in the time allotted on this trip.

Plaza Bolivar was next. Independence Day was celebrated on July 5<sup>th</sup>, and Simon Bolivar's birthday July 24<sup>th</sup>, so wreaths were placed at the base of his statue. We walked across the Promenade to the church and learnt that the service was at 6 p.m. Some stayed for that while the others proceeded to the hotel which was within walking distance. Hotel Bubulinas - downtown Cumana, cool, clean and civilized with a pleasant, well-spoken proprietress. No hiccups here!

After our hefty lunch, we decided that we weren't going to have dinner. A trip to a Mall was ar-

anged for those who were feeling a little "peckish". After leaving the Mall, we drove around for a while to find a petrol station that carried diesel. We were eventually successful and returned to the hotel about 10.30 p.m. and straight to bed.

End of Part 2



**PHOTO CORNER**

View from atop  
Chaguaramal

Photo courtesy  
Reginald Potter



L-R Margaret ffrench, Elisha Tikasingh and Richard ffrench AWNC, 29-3-2008

Photo courtesy Shane T. Ballah

## East Coast Molluscan Drifters: A Review and Summary of the Biology and Occurrences of *Janthina janthina* and *Spirula spirula*

Ryan S. Mohammed, University of the West Indies

Feature



Trinidad has a very diverse coastline ranging from rocky, high energy shores to sandy beaches and estuarine mangroves. The east coast has all three habitats mentioned. The east coast starts at the Galeota Point and goes northward to the Galera Point. The versatility in the various coastlines provides the environment for very diverse marine fauna. The predominant molluscan fauna found from the Manzanilla to south Mayaro coastline belongs to the bivalve class (Pelecypoda). These are usually of the *Donax* sp. (commonly known as “chip-chip”) and occasionally ark shells and clams can be found. On the north eastern coastline the diversity increases with the availability of microhabitats of the rocky shores. Here one can find various top shells, limpets and periwinkles, (all belonging to the gastropod class). Most of the shells one would find on the east coast belong to near shore habitats and their presence and distribution are not influenced by the regional and international ocean currents. There are exceptions to every rule however. *Janthina janthina*, (Linnaeus, 1758), (Fig. 1) and *Spirula spirula* (Linnaeus, 1758), (Fig. 2), can be found in our local waters and also have a world wide distribution because they drift with the oceans currents.

Live *J. janthina* are considered rare occurrences on beaches because they have adapted to a marine pelagic life. Their shells drift with the currents. Like *J. janthina*, only the shells of *S. spirula* are found on beaches. These shells however can best be described as gas filled endoskeletons. Like other cephalopods, *S. spirula* is completely aquatic as well.

*J. janthina* (commonly called “purple sea snails”) belongs to the gastropod class and the family Janthinidae. All Janthinidae are holopelagic. The shell is shaped very similarly to a land snail. Like most marine pelagic animals, counter shading is essential for survival. The underside of the shell (which is



Fig 1. Live specimen of *Janthina janthina* found on Mayaro beach. Photo courtesy Ryan S. Mohammed

sometimes exposed to the air because the animal floats upside down) is purple to lavender and the top (spire end) is white with mild blue hues. The shell height can be variable, with the last whorl constituting 75-80% of the height in high shells, and approximately 90% in low shells. The aperture would be approximately 45% and 70% respectively, (Rudman, 2002). The protoconch (preliminary whorls formed by the larval snail at shell apex) has a gentle gradient. The aperture is large and angular with a thin lip and small umbilicus, which is where the outer lip and columella meet. The head of *Janthina* sp. has an elongated cylindrical snout with a terminal mouth. These animals have no eyes. They possess forked tentacles that project half way along their sides. There is a broad depression at the anterior part of the sole where the mucous bubble raft is secreted and is permanently attached. The eggs are also attached here as well. The posterior of the sole has longitudinal grooves. The muscle tissue is deep violet or black and in adults the operculum is absent. *Janthina*'s diet comprises of *Physalia*, (Portuguese Man of War), and related cnidarians, pelagic coelenterates such as *Velevella velevella* and *Porpita* sp. All of which are oceanic drifters as well.

*J. janthina* is the commonest member of the Janthinidae family. This species is ovoviparous where the eggs develop within the females' genital tract

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## East Coast Molluscan Drifters: A Review and Summary of the Biology and Occurrences of *Janthina janthina* and *Spirula spirula*

Ryan S. Mohammed, University of the West Indies

Feature



(Continued from page 14)

and later shed as veliger larvae from the left side of the mantle cavity. All young start life as males and later develop into females. The males are aphyallic (no penis) and produce spermatozeugmata that swim to the female and enter the genital tract. Therefore fertilization occurs before the eggs have left the ovary, suggesting the species is a protandrous consecutive hermaphrodite, (Rowley, 2007).

A live specimen of *J. janthina* was found on the 2<sup>nd</sup> March, 2007, along with three other empty shells on a sandy shore beach in south Mayaro. Their diameters were 2.31 cm (live specimen), 1.64, 1.42 and 1.02cm respectfully and apex height was recorded at 1.63, 1.01, 0.71 and 0.45cm respectfully. These were accompanied with large mats of *Physalia* which came after 48 hours of rains and high winds from the east.

Also on that day, four shells belonging to the species *S. spirula* were found. They were found closer to the shoreline on the same strip of beach that was at the time infested with *Physalia*. Their diameters were 2.22, 2.15, 1.91 and 1.83cm respectfully.

Live *S. spirula* individuals are small and muscular cephalopods, (4.5cm) found in mesopelagic waters of the tropical open ocean. The intact mantle is covered with regularly aligned collagen fibres that produce a silvery sheen. *S. spirula* carries an unusual internal shell that is calcareous and has the shape of a horn coiled in a single plane without the coils touching one another (open planispiral). The shell is used as a buoyancy device and retains the phragmocone and siphuncle of its distant ancestors. The posterior position of the shell within the body causes the animal to orient vertically with the head downward. The unusual appearance of *S. spirula* with a short, narrow arm crown, small bulging eyes, peculiar structure of the mantle with coiled shell and transverse orientation of the fins,

makes this species very different in appearance from all other cephalopods. The bucal mass is very large with the beaks extending beyond the arm. Only three pairs of arms are present. *S. spirula* is able to withdraw its head and arms completely within the mantle. The photophore at the posterior end of the body is known to glow for hours at a time (Schmidt, 1922, Herring *et al* 1981). When swimming slowly downward, the terminal fins are pointed upward or posteriorly and move with a rapid "fluttering motion" that propels the animal (Bruun, 1943).

According to Naef (1922), the large posterior guard-like sheath (found also on fossilised relatives of *Spirula* sp.) seems to be designed to function as a counterweight to maintain the animal in a horizontal position. This orientation is particularly important for a bottom-associated animal that swims just above the ocean floor (Naef, 1922). It is believed by many researchers that the ancestors of *Spirula* were bottom associated as well. Some behavioural artefacts remain in their life history. A



Fig 2. *Spirula spirula* shells from Mayaro 1-26-2008  
Photo courtesy Ryan S. Mohammed

(Continued on page 16)

## East Coast Molluscan Drifters: A Review and Summary of the Biology and Occurrences of *Janthina janthina* and *Spirula spirula*

Ryan S. Mohammed, University of the West Indies

Feature



(Continued from page 15)

remnant of this ancestral habit remains in *Spirula*'s benthic spawning, (Young, et al, 1998).

Mature ovarian eggs are approximately 0.17cm at the longest diameter (Bruun, 1943). Clarke (1970) and Bruun (1943) described small squid-like animals (in the deep waters of the Canary Islands), with a mantle length of just over 0.2cm and two small shell-like chambers. It was quite possible that these squid-like animals were hatchlings based on the findings of Clarke (1970) and Bruun (1943). Clarke (1970) noted a shift in size frequency distribution over time suggesting that this cephalopod has a life span of 18-20 months.

Clarke (1969) found that *S. spirula* occurs at depths ranging from 550 and 1000m during the day (peak distribution is at 600-700m) and at night migrates into the upper 100 to 300m (peak at 200-300m). Most of Bruun's captures came from the tropical Atlantic and tropical Indo-West Pacific Oceans. Bruun and Clarke (1969) found that *S. spirula* is distributed mostly over the slopes of continents or islands where the bottom depth is between 1000 and 2000m. This animal was the most abundant mid-water cephalopod collected in the region of the Canary Islands by Clarke (1969).

During June 2007 another *S. spirula* shell was collected at Speyside Bay, Tobago, (1.87cm) and a second was collected during November 2007 on Bathsheba coastline in Barbados, (1.23cm). On the Bathsheba shore several *J. janthina* shell fragments were dispersed. None of which were intact though, therefore identification or measuring was not possible. Both of these locations lie on the eastern coastlines of the respective islands. During another coastal search in January 2008, 16 *Spirula* shell remains, (12 had core spirals intact) were collected on the east coast of Trinidad. Collection was again done after a night of rain and increased winds (see Table 1 for collection sites). It is possible those

specimens collected that are less than 1cm have had their fragile calcareous outer coils broken off. Neither *S. spirula* nor *J. janthina* have been collected on any of Trinidad's other three coastlines. The occurrence of both species on east coastlines of various islands therefore supports the claims that these two unique molluscs have a worldwide distribution (Peter Dance, 2002) and travel over the oceans with the assistance of the eastern Atlantic currents. From this information gathered it is clear that a detailed survey is needed to deduce the time of year when these two species have increased beaching.

Table 1, Occurrence of *Spirula spirula* shells at collection sites.

Month/Year	Site	Diameter (cm)
March, 2007	Mayaro, Trinidad	2.22
		2.15
		1.91
		1.83
June, 2007	Speyside Bay, Tobago	1.87
November, 2007	Bathsheba, Barbados	1.23
January, 2008	Mayaro, Trinidad	2.11
		2.07
		2.05
		2.01*
		1.99
		1.99*
		1.98*
		1.97*
		1.95
		1.85
		1.49
		1.29
1.21		
1.11		
0.91		
0.72		

\* Inner coils broken off

(Continued on page 17)

## East Coast Molluscan Drifters: A Review and Summary of the Biology and Occurrences of *Janthina janthina* and *Spirula spirula*

Ryan S. Mohammed, University of the West Indies

Feature



(Continued from page 16)

I would like to acknowledge Cassandra Ramkissoon for her assistance in the collection and photographing of *Spirula* shells in Trinidad. Floyd B. Lucas also assisted with the collection of specimens from Trinidad. George Duttin facilitated collecting in Barbados. Rhoda Bharath assisted with the compilation of this work.

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## Mt. St. Benedict & Coopers - March 30, 2008

Damian Robinson

continued from page 6

Club Trip



Photos L-R

Professor Cooper and rest of the world team receive their victory prize - March 30 2008

Ruins atop Mt Tabor - March 30 2008

Photos courtesy Damian Robinson

## Damian Robinson

*Junior Feature*



**H**ello my fellow field naturalists, I'm Damian Robinson, twenty years old and have been member for almost two years. I was first introduced to the club by my good friend Alyssa Gomes. I figured it was one of her random moments in doing something new, so I tagged along thinking that waking up before the sun rose on a Sunday morning for my first hike to Chert Hill would probably be my last. But I soon discovered that the Field Naturalist Club wasn't anything random but was it something worthwhile.



sailed around rocky outcrops in the north-western of the island in very rough water. The boat was struggling to make it over the huge swells, and that was by far the most exciting adventure I had ever experienced.

The knowledge and experiences gained from the little time that I have been in club has enabled me to aggressively pursue my academic endeavour in an associate degree in Environment Management at COSTAATT. Currently I'm in my second and last year of

that degree program and I would be looking forward to continuing in that field of study in UWI.

From the little time I've been in the club, I have realised that the Field Naturalist is one of the few establishments that have any concern with the natural wonders of our country. With the collective wealth of knowledge contained within the club, it has possible for me, and other persons without a strong academic background in the wide field of the life sciences to learn so much important and exciting facts of our tropical islands.

My favourite trips so far with the Field Naturalist Club were the Tobago trip and the El Tucuche hike in 2007. Also my favourite moment so far was the boat ride in the Tobago trip. The boat

However I may shift to chemistry as I am interested in the study of chemical pollutants, whether in atmospheric, bodies of water or landmass environments. I still have to decide on a specialisation, and looking forward to the prospect of contributing to the conservation of our disappearing natural environments is my real motivation. Time spent on the club's monthly field trips and lectures will assist me in appreciating and understanding our place in the natural world.



## PUBLICATIONS CORNER

Additions and donations to the Club's library:

- Environment Tobago Newsletter Vol. 1, Issue 4 December 2007
- Journal of the Caribbean Environment

## New members; Volunteers; Publications

Management Notices



### New and Returning Members

The Club warmly welcomes the following new members:

**Ordinary members:**

Martin Deane, Bonnie Tyler Alicia Andrews Sue Ann Ramnarine, Denesh Ramsewak and Sorcia D'Arceuil

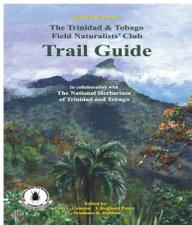
### VOLUNTEERS/ASSISTANCE

Volunteers are required to assist in the following:

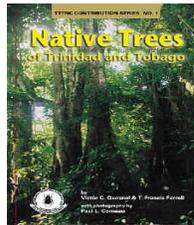
- Typing of an index for the Quarterly Bulletin covering 16 issues for the period 1986 to 1988.
- Becoming a part of the newly formed Environmental Group. Interested persons are asked to contact the Secretary.
- Assisting the Club in finding a permanent location to conduct our business and house our historic records and materials

### PUBLICATIONS

The following Club publications are available to members and non-members:



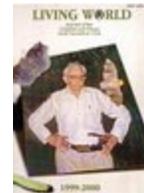
The TTFNC  
Trail Guide  
Members =  
TT\$200.00



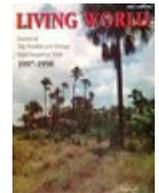
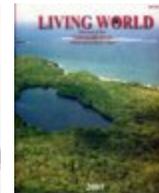
The Native  
Trees of T&T  
2nd Edition  
Members =  
TT\$100.00



Living world  
Journal 1892-  
1896 CD  
Members =  
TT\$175.00



Living World Journal 2007  
Living World Journal back issues  
Members price = free



### MISCELLANEOUS

#### 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 areas of flora and fauna) in Trinidad and Tobago. Full details are available on their website:

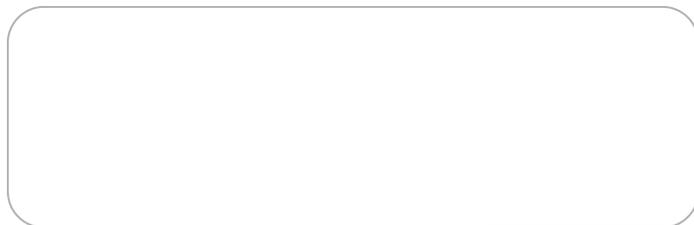
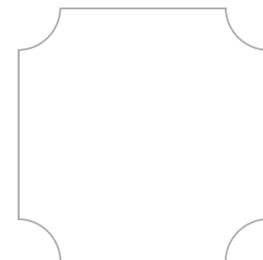
<http://www.greenhallstrust-wi.org/link.htm>

#### Club Polo Jerseys

Available Sizes: medium

Colours: Kahki and green

Costs: TT\$50.00



## NOTES TO CONTRIBUTORS

### Guidelines for Articles and Field trip reports:

Contributors and authors are asked to take note of the following guidelines when submitting articles for inclusion in the newsletter

- 
- |   |                 |   |
|---|-----------------|---|
| 1 | Font Type:      | <ul style="list-style-type: none"><li>• Times New Roman</li></ul>   |
| 2 | Font Size:      | <ul style="list-style-type: none"><li>• 12 point</li></ul>  |
| 3 | Maximum Length: | <ul style="list-style-type: none"><li>• 1,750 words (approx. 3 pages unformatted)</li></ul>   |
| 4 | Content         | <ul style="list-style-type: none"><li>• Field trip reports should include a separate table listing the scientific names, common names and families of plants and animals already identified within the body of the report.</li></ul>  |
| 5 | Photographs     | <ul style="list-style-type: none"><li>• Provide images in the following format JPEG, BMP, PICT, TIFF, GIF</li><li>• Images <b>must</b> not be embedded into the word processing files.</li><li>• Information on the image content including names of individuals shown <b>must</b> be provided.</li></ul> |
| 6 | Format          | <ul style="list-style-type: none"><li>• Acceptable formats for electronic submissions are doc and txt.</li></ul>  |
| 7 | Deadline        | <ul style="list-style-type: none"><li>• All articles <b>must</b> reach the editor by the ninth week of each quarter.</li><li>• Submission deadline for the 2nd Quarter 2008 issue is <b>September 8 2008</b>.</li></ul>   |
| 8 | Email           | <ul style="list-style-type: none"><li>• Electronic copies can be submitted to the editor at <b>shane.ballah@gmail.com</b> or to <b>ttfnc@wow.net.tt</b></li><li>• Include the code <b>QB2008-3</b> in the email subject label.</li></ul>  |
| 9 | Hard copies     | <ul style="list-style-type: none"><li>• Hard copies can be delivered to the editor or any member of the Management Committee.</li></ul>   |
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