



# THE FIELD NATURALIST

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

January - March 2011

Issue No: 1/2011

Field Trip Report, Sunday 25th September, 2010

## El Cerro del Aripo

*Report by Stevland Charles*



**Enthusiastic scientist Mike Rutherford, Zoology Curator Dept. of Life Science UWI climbs a tree to examine *bromeliads* for fauna at the summit of El Cerro del Aripo**

*Photo: Eddison Baptiste*

**On Sunday 25<sup>th</sup> September, 2010, a party of 12 (including members of the Club and invited visitors) embarked upon a field trip to Trinidad's highest summit, El Cerro del Aripo, in the Northern Range. After meeting at the appointed locations in Port of Spain and at the campus**

*(continued on page 3)*

## Inside This Issue

- Cover**  
**El Cerro del Aripo**  
 Field Trip Report, 25th September 2010  
 - *Stevland Charles*
- 6 Annoying and Blood Sucking Arthropods of Trinidad and Tobago**  
 2. *Ceratopogonid* sand flies  
 - *Elisha Tikasingh*
- 8 Wearer Ants in Trinidad & Tobago**  
 - *Matt Kelly*
- 14 We Go to Grenada 1975**  
 Feature Serial (part 1a)  
 - *Hans Boos*
- 21 Book Notice**  
 - *Matt Kelly*
- 22 2010 Christmas Lunch**  
 Botany Presentations  
 - *Vegnu Seiwrattan*
- 23 [Management Notices](#)**
- 24 [Notes to Contributors](#)**

### Editor's note

Many thanks to all who contributed and assisted with articles and photographs.

### [CONTACT THE EDITOR](#)



Web



Email



Facebook



Downloads

# THE FIELD NATURALIST

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

## January - March 2011

### Editors

Eddison Baptiste, Elisha Tikasingh (assistant editor)

### Editorial Committee

Eddison Baptiste, Elisha Tikasingh,  
Palaash Narase, Reginald Potter

### Contributing writers

Elisha Tikasingh, Hans Boos,  
Matt Kelly, Stevland Charles, Veynu Siewrattan

### Photographs

Eddison Baptiste, Hans Boos,  
Matt Kelly, Veynu Siewrattan

### Design and Layout

Eddison Baptiste

The Trinidad and Tobago Field Naturalists' Club is a non-profit, non-governmental organization

## Management Committee 2011 - 2012

President .....	Shane T. Ballah	796-3335
Vice-President .....	Palaash Narase	751-3672
Treasurer.....	Selwyn Gomes	624-8017
Secretary .....	Eddison Baptiste	695-2264
Assist-Secretary .....	Bonnie Tyler	662-0686
Committee members ...	Dan Jaggenauth	659-2795
	Paula Smith	729-8360
	Reginald Potter	694-1160

## Contact us!

Website: <http://www.ttfnc.org>

Postal: The Secretary, TTFNC, c/o P.O. Box 642,  
Port-of-Spain, Trinidad and Tobago

Email: [admin@ttfnc.org](mailto:admin@ttfnc.org)

### Disclaimer:

The views expressed in this bulletin are those of the respective authors and do not necessarily reflect the opinion and views of the Trinidad and Tobago Field Naturalists' Club



## El Cerro del Aripo

Field Trip Report, Sunday 25th September, 2010

by Stevland Charles

Field Trip Report



(Continued from page 1)

of the University of the West Indies at St. Augustine, we drove using the route described on page 134 of the 2<sup>nd</sup> edition of the Trinidad and Tobago Field Naturalists' Club Trail Guide (Comeau *et al.*, 2006).

While proceeding through the lush Arima Valley along the Arima-Blanchisseuse Road, members were saddened to see the extent of the progressing scar on the jungle landscape left by ongoing quarrying activity in the valley. We continued on past the 6 mile post and took a right turn onto the La Laja South Trace into the Guanapo Valley. The cratered road surface and narrowing due to encroaching roadside vegetation made progress a bit slow, but at 08:00 we finally arrived at the start point for the walk; a small bridge at a picturesque little waterfall a few paces away from the La Laja-Paria Trace junction. After disembarking the cars, I found two brightly coloured male specimens of the Trinidad endemic Variegated Gecko (*Gonatodes ceciliae trinitatis*) (Rivero-Blanco, 1979; Schargel, 2008) on the ruins of a wall near the forest edge near the bridge.

After a short briefing by Dan Jaggernaut and Reginald Potter, we began our walk at 08:16, taking the ascending left fork of the junction unto the La Laja-Paria Trace. For the first 20 minutes, we walked through what appeared to be small estates, dotted by a couple meager of huts planted with fruit trees and neglected Cocoa Trees (*Theobroma cacao*) covered with moss. Along this segment of the trail, we crossed a small stream where we heard the calls of and saw another Trinidad endemic species, the Stream Frog *Manophryne trinitatis*. Just before we entered true forest, the view to the southeast a few kilometers away below us was of a large patch of bedrock left bare by quarrying operations in the Guanapo Valley. As we entered the forest, the relative humidity climbed to 90% and the temperature dipped to a comfortable 24.4°C.

As we walked along, we spotted a Zandoli

lizard (*Ameiva ameiva*), in its species characteristic microhabitat; a sunny clearing at the trail side.



**Picturesque little waterfall near  
La Laja-Paria Trace junction**

*Photo: Eddison Baptiste*

Soon we were on a ridge going east and passed the junction of the trail to Brasso Seco Village at 09:00. At that point, we could discern the blue of the Caribbean Sea to the north. We continued on at a steady manageable pace following the trail along the ridge through old growth secondary and primary forest in which the trees were festooned with dripping moss, bromeliads and other epiphytes. Once in a while the still crisp forest atmosphere was punctuated by the haunting cry of the Little Tinamou or Caille (*Crypturellus soui*), a

(Continued on page 4)



**El Cerro del Aripo**

Field Trip Report, Sunday 25th September, 2010

by Stevland Charles

*Field Trip Report***A bunch of happy environmentalist at the summit of El Cerro del Aripo**

(back) left to right: **Reg Potter, Edward Barrow, Stevland Charles, one unidentified guest, Richard Peterson, Francis Castillo, Bobby Oumdash,**

(front) left to right: **Dan Jaggernauth and Mike Rutherford**

photo: Eddison Baptiste

(Continued from page 3)

shy terrestrial forest bird, and true to form; often heard but seldom seen.

By 09:30 the mercury had dipped to a deliciously cool 21.6°C and the relative humidity had topped out at 100%, with faint wisps of mist blowing up through the forest from the Guanapo Valley to the south. Dan was eager and helpful as always to identify a number of botanicals along our jour-

ney's way. He pointed out the palms Manac (*Euterpe broadwayi*) (named in honour of one of the Club's founders, Walter Elias Broadway) and Anare (*Geonoma* sp.) and directed our attention to the ground cover species locally known as Hot Lips (*Cephaelis tomentosa*) for its brilliant red puckered floral bracts. Further along Dan identified specimens of the Trinidad endemic Anthurium (*Anthurium aripoense*), the Heliconia (*Heliconia hir-*

(Continued on page 5)

## El Cerro del Aripo

Field Trip Report, Sunday 25th September, 2010

by Stevland Charles

Field Trip Report



(Continued from page 4)

uta) with its attractive flowers and moss of the genus *Leucobryum* that carpeted rotting logs on the forest floor. At certain sections of the trail, care was taken not to brush against the multitude of malevolent spines present on trail-side Gri-gri



**A stick insect posing for the camera**

Photo: Eddison Baptiste

Palms (*Bactris setulosa*).

The trail continued along the undulating ridge, with a few scattered steep ascents. As we carried on, I was able to glimpse two more Variegated Geckos (*Gonatodes ceciliae trinitatis*) in cavities in the trunks of large trees growing along the ridge. After a generally comfortable hike through beautiful upper montane and eventually elfin woodland forests, we attained the summit of 940m at 11:07. The site is designated by a flat concrete block with a trig mark. While our party rested at the summit, Dan pointed out two plant species that are associated with the Elfin Woodland habitat; Mountain Mangrove (*Clusia intertexta*) with its characteristic stilt roots, as well as Tree Ferns (*Cyathea* sp.) many of them 7m tall. Also noted were specimens of the Giant Tank Bromeliad *Glomeropitcairnia erectiflora* growing on trees all around and the beautiful bright yellow bract floral parts of the ground cover Prayer Plant (*Calathea*

*trinitensis*).

Apart from the flora, some interesting fauna was noted at the summit. Michael Rutherford observed a young specimen of the Trinidad endemic and so called "Luminous" Lizard (*Riama* (= *Proctoporus*) *shrevei*) in the moist leaf litter about 2m from the trig mark. I was able to capture the specimen and it is now preserved in the Zoology Museum of the University of the West Indies at St. Augustine. These small lizards are found only in the high elevation moist forests of Trinidad's Northern Range. A beautiful example of the Emperor Butterfly (*Morpho peleides*) gave members a rare but brief opportunity for photographs and Dan noted a Banaquit or Sugar Bird (*Coereba flaveola*) flitting from tree to tree about 2m above ground.

After refreshing ourselves with food, drink and rest, we departed the summit at 12:05 and retraced the route taken in reverse. On the return walk we noted a small group of White-bearded Manakin birds (*Manacus manacus*) displaying in a lek, as well as a small Tent-making Leaf-nosed Bat of the family Phyllostomatidae (subfamily: Stenodermatinae). Our return journey was completed in relatively quick time as we all arrived safely back where the cars were parked at 14:40. It is worth noting that one of our senior members, Francis Castillo, completed the trip to our country's highest summit and back in great form with the rest of our party. It was unanimously agreed that the trip was a wonderfully pleasant jaunt through the clean, crisp, cool air of the lush high-woods of El Cerro del Aripo.

### References:

- Comeau**, P.L., I.R. Potter and P.K. Roberts. 2006. The Trinidad and Tobago Field Naturalists' Club Trail Guide. 2<sup>nd</sup> Edition. TTFNC. Port-of-Spain, Trinidad and Tobago.
- Rivero-Blanco**, C. 1979. The Neotropical lizard genus *Gonatodes* Fitzinger (Sauria: Sphaerodactylinae). Unpublished Ph.D. dissertation, Texas A&M University.
- Schargel**, W.E. 2008. Species limits and phylogenetic systematics of the diurnal geckos of the genus *Gonatodes* (Squamata: Sphaerodactylidae). Unpublished Ph.D. dissertation, University of Texas at Arlington.



## Annoying and Blood Sucking Arthropods of Trinidad and Tobago 2. Ceratopogonid Sand Flies



by Elisha Tikasingh  
 elisha.tikasingh@gmail.com



**A *Culicoides* biting midge feeding on blood through a membrane.**

Photo: Wikipedia. Scott Bauer, Agricultural Resource Service.

The members of this group are sometimes known as midges, punkies or “no-see-ums”. They are slender and small, measuring 0.6 to 5.0 mm so it is not surprising that they are given the name “no-see-ums”. They are also called sand flies in the West Indies, but we should not confuse them with the phlebotomine sand flies mentioned in the first of these articles. They are vicious blood suckers, no wonder names like *Culicoides diabolicus* and *C. furens* have been assigned to two members of the group. In an article in the Club's journal, Aitken (1957) labelled them as “pestiferous sandflies” and so they

are. These sand flies can be a real nuisance on some of our beaches such as Maracas and Las Cuevas on the north coast, and Balandra and Manzanilla on the north-east coast. They are also found in swamps, forested areas and even in some built-up areas such as St Augustine, Valsayn and Curepe.

In Trinidad and Tobago members of the Ceratopogonidae are represented by 49 species in three genera: *Leptoconops* (1), *Forcipomyia* (3) and *Culicoides* (45) (Aitken et al. 1975). Their wings have few veins, are narrow and folded flat over

(Continued on page 7)

## Annoying and Blood Sucking Arthropods of Trinidad and Tobago 2. Ceratopogonid Sand Flies

by Elisha Tikasingh



(Continued from page 6)

the abdomen when at rest. The wings may be spotted or hairy (photo). The larvae live in a variety of moist areas such as tree holes, rotting vegetation, animal manure, but all require water-logged areas which might include fresh, brackish or salt water depending on which species was involved. The egg to adult cycle may take about three weeks.

The most common species found biting on the beaches are *Leptconops bequaerti*, *Culicoides phlebotomus* and *C. furens*. Davies (1973) found *C. phlebotomus* biting throughout the day at Las Cuevas beach, but peak biting activity was at 7:00 a.m. then again between 3:00 p.m. and 7:00 p.m. In the same area he found two other species biting, *C. debilipalpis* and *C. paraensis* with peak biting activity between 8:00 a.m. and 12:00 noon for the former and 8:00 a.m. and 10:00 a.m. for the latter. I have found *C. diabolicus*, *C. furens* and *C. foxi* more active at dawn and dusk at Turure Forest and Vega de Oropouche, while *C. pusillus* was active throughout the day with peak activity at 7:00 a.m. and a smaller peak between 5:00 p.m. and 6:00 p.m. (Tikasingh 1972).

Most of the collections of the Ceratopogonidae in Trinidad and Tobago were made by staff members of the Trinidad Regional Virus Laboratory (TRVL), predecessor of the Caribbean Epidemiology Centre during the course of studies on arthropod-borne viruses (arboviruses). The collections were made mainly in north Trinidad although some were made in central and south Trinidad reflecting the activities of the TRVL. Some 168,500 *Culicoides* sand flies were collected and processed by the TRVL for virus isolations, but no virus was isolated. However, it is interesting to note that Oropouche virus first described from Trinidad where it was isolated from man and mosquitoes, caused an epidemic of a febrile illness in man in Brazil where a species of *Culicoides* was the vector. Oro-

pouche virus is also known to cause meningitis. Another virus vectored by *Culicoides* is Blue tongue in sheep which has a world-wide distribution. There is some serological evidence that this virus is present in Trinidad.

Species of *Culicoides* is also known to transmit two forms of filarial worms to man, *Mansonella ozzardi* and *Dipetalonema perstans* both of which have been recorded as being present in Trinidad. In a survey on humans residing on the north coasts of Trinidad, Nathan et al. (1979), found *Mansonella ozzardi* in villagers from Maracas to Toco with infections rates varying between 0.2 % at Toco and 23 % at Blanchisseuse.

Fogging can be used to control these sand flies in resorts and residential areas while larviciding of breeding habitats and the use of repellents may bring some relief.

### References

- Aitken, Thomas, H. G. 1957. Pestiferous Trinidadian Sandflies. *Journal of The Trinidad Field Naturalists' Club*, 1957: 23-26.
- Aitken, Thomas, H. G., Wirth, Willis, W., Williams, Roger, W., Davies, John, B. and Tikasingh, Elisha, S. 1975. A review of the blood-sucking midges of Trinidad and Tobago, West Indies (Diptera: Ceratopogonidae). *Journal of Entomology (B)*, 44: 101-144.
- Davies, J. B. 1973. Sandflies breeding near Las Cuevas and Maracas beaches. *Journal of the Trinidad Field Naturalists' Club*, 1973: 53-67.
- Nathan, M. B., Tikasingh, E. S., Nelson, G. S., Santiago, A. and Davies, J. B. 1979. The prevalence and distribution of *Mansonella ozzardi* in coastal north Trinidad. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 73: 299-302.
- Tikasingh, Elisha S. 1972. Seasonal and diurnal activities of four species of Trinidadian *Culicoides* (Diptera: Ceratopogonidae). *Mosquito News*, 32 : 447-452.



## Weaver Ants in Trinidad and Tobago

by Matt Kelly



**Weaver Ants in Suriname near Moedervall at  
Volzberg-Raleigh Vallen Nature Reserve  
April 5, 2004 (Photo 1)**

As a long time observer of nature, I try to keep my eyes open for new, interesting and unusual sightings. I consider myself an amateur field naturalist, as I do not have a formal background in entomology, or in any specific area of natural history. Those who know me will vouch for my enthusiasm for the natural history of T&T. It is from this background that I wish to report on my findings of Weaver Ants, possibly the first reported in T&T.



## Weaver Ants in Trinidad and Tobago

by Matt Kelly



(Continued from page 8)

My story starts on the exciting TTFNC trip to Suriname in 2004. On Monday, April 5, we were walking within the Volzberg-Raleigh Vallen Nature Reserve, which is part of the Central Suriname Nature Reserve. We passed a nest of some kind that had evidently blown down, or was knocked down from the canopy. This nest was somehow made of living leaves pulled together, and bound by a thick silk web. I am familiar with this type of nest from my native Western Massachusetts, where these types of nests are commonly made by New England caterpillars; mainly the Eastern Tent Caterpillar (*Malacosoma americanum* Fabricius) or the Leaf Roller or "Uglynest Caterpillar" (*Archips cerasivorana*). But this native Surinamese nest was not occupied by caterpillars. It was occupied by ants! I thought this most strange. It was this sighting that got me started.

[Photo 1]

Upon my return back to "civilization", and after some further inquiry, I learned that a certain species of ant called "Weaver Ants" are responsible for these silk tent colonies. According to two of the world's most notable myrmecologists (those who study ants), Edward (E.O.) Wilson and Bert Hölldobler, Weaver Ants occupy one of the most classic and unique life histories of all social insects. Other classic species include Honey Bees, Leaf-Cutter Ants and Army Ants.

The most studied variety of the Weaver Ant is of the genus, *Oecophylla*, which can be mainly found from Africa through India, China and Australia. These Weaver Ants live in their own unique, self-constructed, arboreal communities. The community is made by pulling together a clump of living leaves and small twigs, and covering it with waterproof silk walls. So, how do tiny ants accomplish this? This is the really amazing part!

When constructing a new nest, advance foragers

will communicate to the colony a suitable new location. After this location is agreed upon, the Weaver Ant troops arrive. In order to pull leaves and small branches together, hundreds, maybe thousands of ants may have to work and cooperate together. Call these the "pullers." The "pullers" may form dozens of living chains by linking their bodies together in long lines, and pulling leaves and branches together, one at a time. How they do this, or under whose direction or supervision they are under is not known.

Many species of insects are able to spin silk, to make a cocoon, for use in the transformation in their life cycle from the larval stage to adult. This is best known in butterflies and moths, and many species of ants. The Weaver Ant larva does spin silk, but do not make cocoons. The Weaver Ant larva bring weaving to a whole new level. As the leaves and small twigs for the new nest are pulled together by the multitudes of pullers working in tandem, another group of adult Weaver Ants come on the scene. Call these the "weavers." The weavers carry their larval sisters in their jaws to the scene of the nest construction. As they watch and interpret the progress of leaves and branches coming together made by the living chains of their "puller" comrades, the "weavers" stimulate their living larva, which cause the larva to create silk. As the larva emits silk, the weaver will direct the larva to an area of leaves or twigs that needs to be stuck together, and weave a bond. The weavers carry the larva around like some kind of living glue gun as they do their work. As more and more areas of leaves and twigs are bonded by the weavers with larva, the pullers are able to pull more and more leaves and twigs together to have them bonded. This process goes on until a suitable nest colony has been completed. The finished product can be covered in silk. This provides the ant colony with the protection of height, inaccessibility and waterproofing.

(Continued on page 10)

## Weaver Ants in Trinidad and Tobago

by Matt Kelly



(Continued from page 9)

Belonging to the sub-family, *Formicinae*, as the genus *Oecophylla* belongs, are included all the related Weaver Ant members of the small Neotropical genus *Dendromyrmex*, which includes two species; *Camponotus* (*Myrmobrachys*) *senex* and *C. (M.) foriciformis*. I believe the nests I observed in Suriname and Trinidad may belong to this later genus, *Camponotus*.

On January 15, 2006, on a walk on the Main Ridge of Tobago, above Englishman's Bay, I came across an arboreal nest of ants which was made of leaves held loosely together by silk. The nest was about 6 feet off the ground, constructed in what looked like a bract of young leaves. I returned several times again to the area where I found this nest on Tobago, but have found nothing like it since. [Photo 2]

On January 13, 2008, on a TTFNC Birding Field Trip to Morne Bleu, on Las Lapas Trace, I spotted a white silken bundle of leaves 40 to 50 feet high up in the canopy. I immediately recognized it as a similar type of ant colony I came across in Suriname. Upon examination of photos, it looked extremely similar. In my photos, ants can clearly be seen on the outside of the nest. So, Trinidad has Weaver Ants too! [Photo 4]

But just how common are they in T&T? I had the opportunity to ask many of T&T's entomologists on a subsequent Bug Trip, and Weaver Ants were not known in T&T, as far as I could ascertain.

Also in Tobago, on March 28, 2008, I discovered another type of arboreal ant colony in a sapodilla tree. This was a very different type of nest, which was made from a lot of debris, with bits of chewed grass, plant stalks, leaves, bits of leaves, sticks, and small stones, which all appeared held together by



**Weaver Ants on Main Ridge, Tobago,  
above Englishman's Bay  
January 15, 2006 (Photo 2)**

dried mud and a very small amount of silk.  
[Photo 3]

I made contact with Bert Hölldobler (former Pro-

(Continued on page 12)



## Weaver Ants in Trinidad and Tobago

by Matt Kelly



**Carton Ants, Englishman's Bay, Tobago  
March 28, 2008 (Photo 3)**

## Weaver Ants in Trinidad and Tobago

by Matt Kelly



(Continued from page 10)

fessor of Zoology at Harvard University and co-author of many entomological publications with E.O. Wilson) and Stefan Cover, Entomologist at the Harvard Museum of Comparative Zoology, to inquire of my findings.

As far as can be determined from the descriptions and photos from Suriname and Trinidad, Hölldobler replied, "Most likely these ants are *Camponotus senex*, a weaver ant species from Central and South America. ... In any case a report of your findings might nevertheless be of great interest to naturalists; there is not much known about *Camponotus senex*." Cover added, "The silk-nesting ants either belong to the genus *Dendromyrmex* or they might also be *Camponotus senex*."

Regarding the silk nest from Tobago on January 15, 2006, "The nest surely shows signs of silk," noted Stefan Cover, Entomologist, of the Harvard Museum of Comparative Zoology, on viewing the photograph. They appear to be weaver ants, but just what genus, would not be known without specimens. Probably *Dendromyrmex* or *Camponotus*, which are related to carpenter ants, but spin silk. These are the frontiers of biodiversity, and much more has to be learned from this part of the world."

Regarding the ants from the other Tobago nest on March 28, 2008, Cover remarked, "The carton-making ant is a species of *Dolichoderus*, probably either *bidens* or *bispinosus*." He asked me for specimens, and continued, "Incidentally, the ants on the Sapodilla tree were almost certainly not nesting in that carton shelter they built around the fruits. Some *Dolichoderus* often build carton sheds around aphids or coccids they are tending on the plant. The sheds protect both the aphids or coccids and the ants from rain and from other insect predators and parasites, and the ants will put them

up wherever they find a reasonably large group of aphids."

Therefore, if indeed these latter Tobago ants are *Dolichoderus*, they are not then true Weaver Ants.. The nest I observed was definitely of the "carton type", with chewed vegetation, and definitely did contain a small amount of silk. I returned to the exact site of this "nest" 9 months later to find no trace whatsoever of it, or of the ants. I have not encountered such a sight ever since.

In every one of the four cases, I found only a single nest. Many Weaver Ants can make an entire tree one giant arboreal colony, with multiple nests. I found such a tree near the Dubulay Ranch, along the Berbice River in Guyana, on January 24, 2010. In this one tree, were several dozen nests, similar to the nest structure I found on Las Lapas Trace in Trinidad.

Overall, I find it exciting to find Weaver Ants in Trinidad and Tobago. The next time you are out in the bush, keep your eyes open for more arboreal silken nests. More research and observations will need to be done, and probably specimens examined for further and more definitive conclusions. I look forward to more information and discussion on the topic in T&T.

(Continued on page 13)



## Weaver Ants in Trinidad and Tobago

by Matt Kelly



**Weaver Ants on Las Lapas Trace,  
Trinidad  
January 13, 2008 (Photo 4)**

(Continued from page 12)

### References:

**Hölldobler, Bert, & Edward O. Wilson**, 1990, *The Ants*, Belknap Press of Harvard University Press, 732 pages.

**Hölldobler, Bert, & Edward O. Wilson**, 1994, *Journey to the Ants*, A Story of Scientific Exploration, Belknap Press of Harvard University Press, 228 pages.

**Hölldobler, Bert**, personal email communication, June 5, 2008

**Kelly, Matt**, 2008, TTFNC Birding Trip to Morne Bleau, January

13, 2008, *The Field Naturalist*, Quarterly Bulletin of the Trinidad and Tobago Field Naturalists Club, Issue 1/2008, page 5.

**Kelly, Matt**, 2009, The Beating Heart of the Amazon (TTFNC Trip to Suriname, April 2 – 8, 2004), *The Field Naturalist*, Quarterly Bulletin of the Trinidad and Tobago Field Naturalists Club (in 2 parts), Issues 3/2009 & 4/2009

<http://www.forestpests.org/> was used to identify the tent caterpillars of the Northeast North America



## WE GO TO GRENADA 1975

*Feature Serial by Hans Boos  
(Part 1a)*

**"Let's go to Grenada!" suggested my brother Julius.**

**We — my friend Terry from Australia, Julius, and I — were sitting in my office. Terry had arrived the week before, flying in from London via Luxembourg and Barbados on one of those economy trans-Atlantic flights. His totally unexpected, but none the less welcome,**



**Julius Boos and Michael St John**

*Aboard the schooner 'Starlight Light V'*

visit had caught me off guard, for I had not seen him since I had left Sydney, Australia, in the early part of 1973. For two years we had kept in touch, as he left Australia and, by devious means and routes, made his way to London, where he had had little difficulty in getting a job as a keeper at the Regent's Park Zoo there. A letter suggesting that he

spend his first vacation from that job by travelling to Trinidad, had arrived only a week or two before, and I had met him at Piarco airport with real pleasure, for we had shared many an adventure in Australia, his home, and I looked forward to many more now on my home territory.

*(Continued on page 15)*





## WE GO TO GRENADA 1975 (part 1a)

Hans Boos

(Continued from page 14)

"We could kill many birds with the same stone," Julius continued. "You need a male Mona; we could hunt some 'sarpints' and photograph them in their natural habitat; also, *Anolis richardii* so big you could eat them; and Terry will get to see another Caribbean island; also, we could make arrangements to take the Grenada Zoo some of the surplus Capuchin monkeys here as exchange animals in case they have any surplus Monas there."

The Mona to which Julius referred was the African Mona monkey, *Cercopithecus mona*, which was feral on the island of Grenada, having been transplanted there from Africa, by what means no one was definitely certain. It was surmised by the naturalist Groome, who wrote the definitive book on the natural and other history of Grenada, that in all probability, this medium-sized, exquisitely beautiful, West African monkey had been brought on the slave-ships transporting their human cargoes to the then French Grenada, from ports in Africa where the Monas were common, and different from the Green monkeys taken from the other West African slave-ports and transported to the British West Indian islands of Barbados and St. Kitts. It was all a matter of trade. The French had their own trans-Atlantic trading ships, sailing between their colonies and outposts in Africa and their colonies in the West Indies, and the British had theirs. Why they chose to transport the monkeys, those particular species, in such numbers, so as to either inadvertently or purposely set up transplanted wild populations on only those select islands, is still an enigma. But there they were, on the islands, in fairly large numbers. Large enough to be hunted as pests and used for research on Barbados, and for food and as pets on Grenada.

There was a thriving colony of Greens or, as they are also known, Vervets, in the Emperor Valley Zoo which came originally from Barbados some time ago, perhaps in the early 1960's and

which would need an input of fresh genetic stock, for this colony, though self-sustaining, was beginning to show inbreeding defects. Youngsters were being born with regularity, but some, as they grew into adolescence, began to exhibit strange symptoms. Subject to tremblings and partial inability to pick up objects or adequately feed themselves when they were weaned, they either died or were killed in the family squabbles that are a feature of monkeys in captivity; when the weak or the old cannot get out of the path of danger, they get eliminated.

Julius had managed to buy a pair of young Monas in Grenada during a trip he and his wife had made there the previous year. They were a perfect pair of young adolescents and were named Francis and Suzie after the children of a friend. This unplanned for and fortuitous arrival at the zoo in Trinidad caused them to be placed in a temporary enclosure where their human contacts, to which they had been accustomed in their captivity in Grenada, made them popular exhibits, for they would come to the wire of their cage and readily interact with the visitors, accepting food, which practice was impossible to police and allowing themselves to be petted and groomed. These loving, partially human-imprinted primates fit the template of what the public want and expect from a monkey, and unfortunately fuels the continuous pet trade in these unsuitable animals as pets. Only for a time do these loving traits and behavior endure, for with the attaining of puberty, and adulthood, the irretrievably imprinted primate can turn nasty and is a pet no longer.

But Francis and Suzie were proving to be a hit, until the human savagery of some people who visit zoos killed one of these beautiful creatures. We never found out what had happened, but discovered one of the monkeys near death, its arm wrenched out of the shoulder socket. We reconstructed what may have happened. Quite possibly a finger thrust into the cage had been bitten, and

(Continued on page 16)



## WE GO TO GRENADA 1975 (part 1a)

Hans Boos

(Continued from page 15)

in retaliation, an out-thrust arm, expecting offering food, was grabbed and held. The frightened monkey pulling backwards in panic did the rest. Nevertheless, we were short one of the pair on which we had banked our hopes of setting up a breeding Mona-monkey colony, similar to the one of Greens from Barbados. With young and preadolescent primates which have not been drastically imprinted on humans, the chances of breeding success are much greater than pairing adult strangers who have spent their lives caged, alone, among humans, and subject to the vagaries of human behavior, including cruelty.

So the call of Grenada seemed timely on many fronts. We would go. We would catch "sarpints," for Terry, like me, was first and foremost a "reptile man," and the sarpints were beautiful. There on Grenada, the sarpint — *Corallus grenadensis* — existed in an almost rainbow variety of colours and patterns, and they were plentiful.

We would scour the island for another Mona monkey, a male, to replace the one killed, and any others we could locate. And we would do all the wonderful things that a snake-hunt entailed; see all the places that Julius assured us were unique; the black volcanic sand beaches; the Grand -Etang of the sleeping central volcano on the island, and the remnants of the "red-legs" — the few whites hanging on in hill-villages, in a now predominantly black-populated island.

We would take a native Grenadian with us as well, Michael St John, one of the zookeepers. Michael St John had worked for the Zoo for several years. In fact he was already employed as a general labourer when I took up my duties as Curator in early 1973. A compatriot of the head-keeper Nelson Augustine, he was a cheerful and humorous man, which led me to begin his training as one of the animal keepers, a job he was required to do from time to time when absenteeism and short-staffing in the Zoo, in the early days, necessitated that all hands were needed to clean

and feed, to ready the Zoo for the public. Little more was done to maintain what was no more than a large menagerie, in the early stages of the Emperor Valley Zoo. What lived, lived; what died, died. Few animals reproduced and theft was a common occurrence. So Michael St John would go along as a member of the expedition.

I made the necessary phone calls to the authorities concerned with the Grenada Zoo and their Government Veterinarian, to enquire what health requirements and permits we would need to bring them a gift of a pair of the Venezuelan Capuchins that, due to the smuggling into Trinidad, ended up as surplus in our collection. I also secured the necessary import permits for any Monas we might acquire, for the zoo officials in Grenada informed me they had no surplus there, and we would have to depend on any finds among the people who might agree to sell us, or donate to the zoo in Trinidad, their captive or pet Monas. These arrangements took two or three intense days of running around to arrange for the permits at such short notice, but by mid-week our decision to go to Grenada was firmed up by having the required paperwork approved by the Ministries of Agriculture, Health, and Industry and Commerce. I made sure to secure, too, permits to import some of the sarpints — tree-boas — that we felt sure we would capture. They were plentiful on Grenada; in four nights of hunting, several years before, Julius and Dr Richard Ross of the United States had bagged fifty-two.

And to top it all off, we would go and return by schooner. If we were successful in getting a monkey — or many monkeys, and snakes, the problems of transporting them by air, we saw as unnecessary. By boat, one of the schooners that plied the waters between Grenada and Trinidad, there would be no trouble. By schooner, with the necessary permits, both export and import, we would not have to explain to worrying airline officials, or endure the gawking fellow passengers, and

(Continued on page 17)



## WE GO TO GRENADA 1975 (part 1a)

Hans Boos

*(Continued from page 16)*

to wade through the red tape of getting the animals out of the cargo section at the airport at Piarco.

So, schooner it would be. And none of us, maybe, except St John, as we called him, had made such a trip before on one of the inter-island schooners. They sailed back and forth over the ninety sea-miles, though "sailed" is not quite the correct term as applied to these heavy, belly-fat boats; they motored too. In and out of the harbours where they could not maneuver by wind alone, and to add to the speed as the trade winds pushed them northwest towards Grenada and islands beyond, or back, southeast and through the Bocas, into the docks of Port of Spain.

It was mid-week, and the weekend seemed like the ideal time to go. There was little time to plan to get all the permits and equipment ready, but we managed it. Not that we would need much equipment. A few bags for the snakes and a cage for at least one monkey, for from the past experience of Julius, and from the phone calls I had made, we would be extremely fortunate to get more than one. If we were, well, we would not only buy the monkey, we would buy the cage too. Another reason for going by schooner.

After a frantic day or two, gathering up our equipment, anticipated needed personal items shoved into back-packs, a pallet or two of rubber foam in case we had to sleep rough, passports, money, permits, we went to the docks to book passage to Grenada.

The only schooner going that Thursday night, for we reckoned that three days would be sufficient to accomplish all we needed, was a large, squat craft with the lettering "Starlight V" stencilled across the transom. What the "V" part meant — whether it was a Vee or the Roman "five" — we never discovered. As we stepped aboard, looking for the captain to arrange passage, all eyes of the stevedore workers on the dock and

hovering over the open hatch amidsthips of the boat were turned to stare as we asked directions.

Pallets of bags of cement were being slung from the dock-side, a donkey-engine coughing and chugging, as the operator expertly slung the rope over the spinning cat-head to pull the rope through the creaking pulley on the booms, and seemingly effortlessly pluck tons of cargo from the dock and drop it through cement-dusted hands into the hold of the gently heaving belly of the boat. Bodies slick with sweat, and grayed with the dust, the labourers watched us as we made our way over the gunwales and under the canvas awning slung over the stern to give some shelter to the wheel-house, the small crew-cabins and the open hatch, above the noisy clanging diesel engine trembling in the darkness below.

We had to shout above this clangor of getting the boat laded and ready to sail, to attract the attention of the man down in the reverberating and pungent darkness, who had been pointed out as the captain. A pale mottled face was turned up to us as we shouted at him. He shook his head, pointed to his ear to let us know he could hear nothing over the steady beat of the smoking diesel engine, and with a gesture to his companion there in the semi-darkness he disappeared off to the side, only to reappear out of a door close by on the deck.

He beckoned to us and we followed him into a cramped little office cum wheel-house, where in the comparative quiet, we explained our mission. Shaking his head in disbelief, he wrote out our tickets and accepted our payment for passage for four on the "Starlight V" that afternoon. That was all we needed to do. It seemed all too simple. And it was. The captain told us to be there for four that afternoon. He would sail at four.

When we got down to the docks, early at my insistence, there she was, lying lower in the

*(Continued on page 18)*



## WE GO TO GRENADA 1975 (part 1a)

Hans Boos

(Continued from page 17)

water, as the last cargoes were being carried aboard, loading her approximately fifty feet from stem to stern with every imaginable variety of manufactured foodstuff and dry-goods needed in Grenada and trafficked by the passengers we now saw gathered in groups on the dock's edge. They shouted and screamed and gesticulated at the stevedores stowing and piling crates and bags, boxes and parcels, all tied with cords, ropes and tapes, packing and piling and stacking in every available square foot of deck or horizontal and vertical space left on the boat.

These passengers, these traffickers, were mainly women. Mostly fat women. Great bulging bellies and bosoms and bottoms, over swollen ankles, over misshapen feet, shoved into broken, scuffed shoes and slippers. Flowered cotton dresses, drenched with sweat and sticking to their steaming bodies, as they pulled swatches of cloth or mini-towels from their voluminous bosoms and swabbed their faces. White powder caked on their chests, their cleavages, and in the creases in their necks, as they peered at our strange, and out-of-place trio, carrying two caged monkeys, accompanied by St John, as shiny black as they were, as we jumped onto the stern and stowed our gear in the only remaining space available — behind the cookhouse on the port side of the stern. The starboard side of the stern was occupied, we found out, by the bog-house, the toilet, which dropped any deposits into the sea below through a splintered one-hole seat.

We stowed our meager possessions on top of a motley collection of pots and pans already stowed there. The available space there was also reduced by two standing, linked, one hundred-pound propane-gas cylinders that fuelled whatever cooking stove was housed in this small shack. There was nowhere else. The hatch on top of the engine, there in the stern under the mainsail boom, upon which the mainsail was still lashed, was occupied by a cluster of large woven baskets;

baskets that had been used by the Trinidad-bound traffickers to bring much sought-after Grenadian fruits, vegetables, and ground provisions. Mangoes, zabocas, and yams, dasheen, eddoes, breadfruit, soursop, sugar-apples, and a variety of other provender, eagerly sought by Trinidadians and expatriate Grenadians living in Trinidad, was shipped to Trinidad almost daily by a fleet of small luggers, tramp steamers and schooners. We could see them still tied up now, ahead and astern, and alongside, crowding the docks, their crews, dockworkers and passengers swarming over the whole, like ants over a kicked-in ant-nest.

We had arrived at the docks shortly after noon, and by the time we had done all the necessary to assure our place on the boat, and cleared with the rather casual immigration procedures which covered the to and fro between Trinidad and Tobago and Grenada, we realized that we were hungry.

Leaving Julius and St John to watch over our luggage to protect it from inadvertent "falling overboard," Terry and I headed out of the dock area through a breach in the ragged chain-link fence which delineated the docks, and bordered the city-end of the Beetham Highway, we dodged the rushing traffic streaming down this highway and made our way to a restaurant on Broadway. We opted for Chinese food and I bought four portions of the popular char-sue-kai-fan, a mixture of tenderly roasted chicken, chopped up in such a way that it was difficult to tell, except by the texture of the flesh, from which part of the chicken it had originated; fried rice, with little chunks of pork, shrimps and beef, and a vegetable mix including shredded vegetables, water chestnuts, mushrooms and noodles. I should have noticed that, delicious as it looked, and later proved to taste, the food from this restaurant tended to be a little oily. Too much oil had been used in the preparation.

But, getting back to the "Starlight V," we

(Continued on page 19)



**WE GO TO GRENADA 1975 (part 1a)***Hans Boos***Starlight V***(Continued from page 18)*

found that Julius had bought a selection of coconut "drops," a sort of rock-cake, from a passing vendor, and with cold soft drinks, Solos, had begun to assuage the hunger that had prompted my foray for Chinese food.

In any event, we four sat on the curving stern gunwale and feasted on the food, dropping scraps and bones into the water below. Here, the green, opaque, pea-soup-like ocean, littered with the usual wrack found in Caribbean ports surged gently between the pitted wooden piles of the dockside. Responsively, the schooner lifted and fell and its hawsers and ropes straightened and bowed as they took the strain of the schooner's attempts to float free on the rising tide. Rigging creaked and the boom above us swayed back and

forth gently to the swinging arcs of the twin masts. We looked to see if our offerings to the ocean below fed any hungry mouths, and only occasionally did we see a brief swirl in the filthy water that told us that, despite the pollution, there were probably myriads of small striped or jet-black damsel-fish, or whiskered catfish, that were waiting and feeding eagerly just below the garbage-littered surface of the water.

Just as eagerly, people came and went on the ship. They jumped aboard, the agile ones, and rummaged in their stored goods, and then rushed away again, chatting with crowds gathered on the dock. The obese traffickers began to trickle aboard too, choosing a precarious gang-plank stretched between the gunwales and the edge of

*(Continued on page 20)*



## WE GO TO GRENADA 1975 (part 1a)

Hans Boos

*(Continued from page 19)*

the dock. They huffed, and held one arm akimbo as they clutched at rigging and superstructure within reach, supporting their tortured backs and bodies. Making their way astern, we saw them begin to clear spaces amongst the clustered baskets on top of the engine hatch and, laying squares of cloth and carpeting in the spaces they had created, they lay down and heaved their bulks into positions of most comfort to their individual size and ability. Within minutes, they seemed to fall into a collective snooze in the hot, shadowed afternoon.

Four o'clock came and went and still we waited, and we all nibbled on the rock-cakes and drank more cold soft drinks to assuage the thirst that both these dry coconut confections and the Chinese food had created. We too felt sleepy and in a kind of lethargic state created by the gentle lift and fall of the schooner. Time seemed frozen as the last-minute bustle suddenly increased as the captain coming aboard was heard to say that he could not wait any longer. He began to bawl out orders and his crew began to unwind the tethering ropes from the bollards on the dock. At the same time the constant thrum of the diesel engine gave a sudden burst of sound, accompanied by a corresponding gurgle of the exhaust pipes near the waterline nearby. A gout of blue smoke blew away over the water as the steady beat of the engine now rose as the captain fiddled with the throttles. We could see him in the wheel-house, impatiently swinging the small wheel back and forth. Suddenly there was a disturbance on the dock as a group of young people, waving their arms and screaming, "Wait! Wait!" came running, and with giggles and laughter jumped aboard, throwing bundles and small suitcases and bags into the waiting hands of those already aboard. They too, jumped across the space that had slowly opened as the "Starlight V" began to drift free. Breathlessly, they gathered themselves together and went forward, where they assembled around

the foremast, and in the bow.

St John, who had wandered away, now went over to them and after chatting with these young people, an equal number of girls and boys, came back to tell us that they were a church group, probably Seventh Day Adventists or Jehovah's Witnesses who were returning to Grenada after a church-sponsored visit to Trinidad.

The schooner nosed free from between its sister ships moored on its seaward side, nudging its way out into the open water. The engine chugged steadily and we could see that the screw churned up a dark muddy path in our wake as we headed out of the shallow port of Port of Spain. The dock-side and the customs buildings, the warehouses and the cargo sheds slipped by and diminished as we headed out into the stream, until we could only tell where we had been by the up-thrust finger of the old leaning lighthouse, now in the centre-strip of the Beetham Highway, standing where the muddy waters of the gulf had once washed against its base. The Five Islands, Cronstadt Island and Carrera Island came up and passed as we headed west. The sun had begun to sink below the cloud cover over the hills of Venezuela. The young people — the church group — had got on top of the forward hatch, and, their faces to the soft wind created by the chugging schooner, had begun to sing, clap and beat time with a tambourine. Several goats, tethered in the bow, bleated in out-of-time counterpoint to this outpouring of high-spirited religious fervor. We had gone forward too, as the stink of the diesel engine and the smoke from the exhaust seemed to, despite the light headwind, to hover over the stern and the hatch where the huddled bulk of the traffickers now obliviously snored.

*(to be continued )*



## Book Notice

Matt Kelly



### **The Leafcutter Ants**

Bert Hölldobler and Edward O. Wilson  
W. H. Norton Company (New York & London)  
© 2011, 160 pages, paperback, \$19.95 (US)  
ISBN 978-0-393-33868-3

Anyone who has spent any time outdoors in T&T, and around the neotropics cannot have missed seeing the *bachac* ants. The local name “bachacs” comes from the French *bachique*, meaning jovial, living together (1). They are also the *saúva* of Brazil, *isaú* of Paraguay, *cushi* of Guyana, *zampopo* of Costa Rica, *wee-wee* of Nicaragua and Belize, *cuatalata* of Mexico, *bibijagua* of Cuba, and “Town Ant” or “Parasol Ant” of Texas, Louisiana and Florida. In science, these ants come from two genera; *Acromyrmex* and *Atta*.

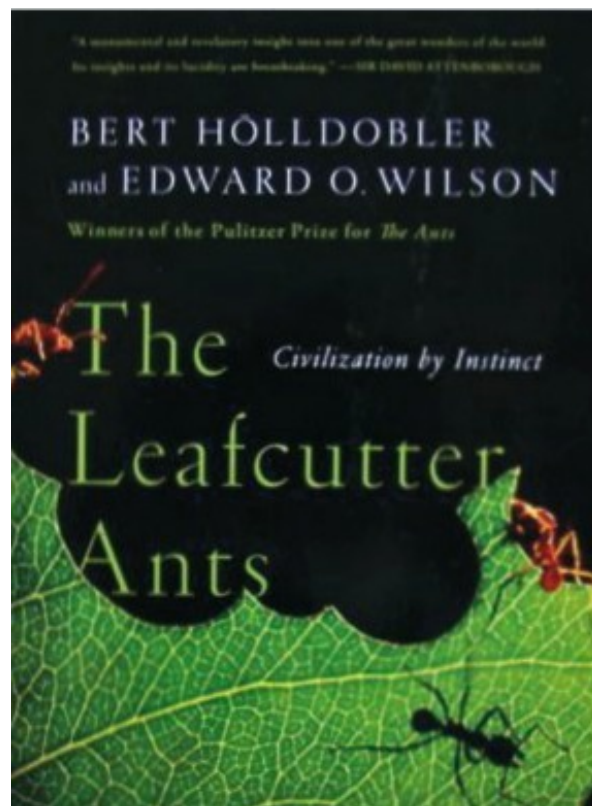
The tribe Attini (*Atta*) are resident to the new world, with thirteen genera and approximately 230 species ranging from the Pine Barrens of New Jersey to the cold-temperature desserts of Argentina. *Atta cephalotes* is a common species found in T&T.

Along with *homo sapiens*, leafcutter ants are one of the few life forms on the planet who are able to sustain their (otherwise untenable) populations based on organized agriculture. A typical queen may live for more than 10 years, produce tens of millions of offspring, reign over a colony which could number 6 million (or more). A nest can have thousands of chambers, be as deep as 25 feet under ground, and cover a hundred square meters (or more). I have heard of one nest studied in Trinidad which comprised five full acres. A typical nest is responsible for the daily trimming of herbage equal to one mature cow.

Leafcutters cultivate fungi for their sustenance. Most cultivated fungi belong to the basidiomycete family Lepiotaceae, with the great majority belonging to two genera; *Leucoagaricus* and *Leucocoprinus*. When a nuptial queen takes flight from her nest, she will actually carry a piece of this essential ancestral fungus with her to form a new colony. Should this heritage fungus be lost, the new colony is doomed from the start. If the fungus become diseased, the colony can also be lost. Ants tending the same strains of fungus from different nests can recognize each other as relatives.

These organisms have an extraordinary ability to communicate through touch, and the ability to intricately commune with deliberate chemical smells. In a study of *Atta cephalotes*, one milligram of the trail making pheromone was enough to lead foraging ants theoretically three times

around the globe! Another study in *Atta vollenweideri* had the striking result of one milligram of the trail making pheromone of theoretically leading foraging ants fifty times around the globe!



Both the layman and the scientist will find this book a valuable resource. It is packed with stunning photographs, and has been called, the most detailed and authoritative description of any ant species ever produced.” Chapters include; The Ascent of Leafcutters, Life Cycle, Caste System, Harvesting, Communications, Ant-Fungus Mutualism, Hygiene, Waste Management, Predators, Nests, and Trail and Trunk Routes.

The work is loaded with facts, science, and information.

The book is an outgrowth of Hölldobler and Wilson’s, *The Superorganism*, (2009) which is an in-depth look at insect super societies. These two scientists are probably the world’s most notable Myrmecologists (scientists who study ants).

Edward O. Wilson is based at Harvard University. He is a  
(Continued from page #)

(Continued on page 22)

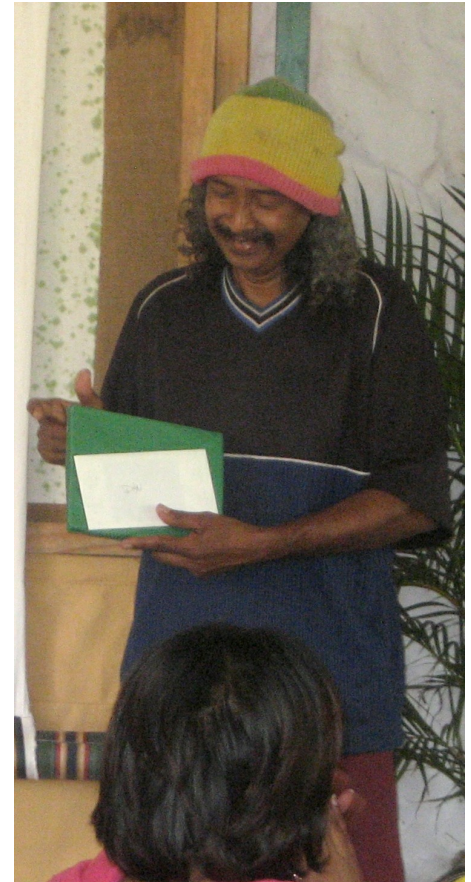
## 2010 Christmas Lunch Botany Presentations

Veynu Siewrattan



**Botany Group Presentations at the Club's 2010 Christmas Lunch**  
(standing) left to right: **Lester Doodnath, Esperanza Luengo, Bobby Oumdath, Shane T. Ballah**

During the TTFNC's 2010 Annual Christmas lunch held at Mariposa restaurant in Lopinot, the Botany Group headed by Lester. W. Doodnath, took the opportunity to honor two long standing members for their valuable contributions towards this very energetic group. Lester presented a framed photograph to Dan Jaggernaut as a token of his support over the years and to recognize his invaluable botany knowledge and experience. Dan is well know to all members of the group and has contributed tremendously to the success and enjoyment of the groups' various activities. Esperanza Luengo presented another photograph to Bobby Oumdath as a token of appreciation for his support over years. Esperanza and Bobby are testament to the fact that even love blooms in the botany group.



**Dan Jaggernaut**



(Continued from page 21)  
prolific researcher and author.

He is attributed for coining the terms, "biodiversity" and "sociobiology." He is also noted for his theory of "Island Biogeography", demonstrating the relationships of an island's latitude, proximity to mainland, and physical size, to the number of plant and animal species the island will likely support.

Bert Hölldobler, originally based at the University of Würzburg, Germany, now hails from Arizona State University. He is the author of many ant studies, and is the lead author and collaborator with E. O. Wilson on a number of myrmecological titles, including, *The Ants*, 1990, the Pulitzer Prize

winning "Bible of Myrmecology." I can say, "bible" based on the size, number of pages (732), and weight, the book has all those attributes of a holy book.

Leafcutter ants are truly amazing, but are notoriously incompatible with our own cultivated plants. But after reading this book, I will have an even more difficult time in raising a hand against them in my own yard. *The Leafcutter Ants* will certainly be a welcome resource to any person with an interest in natural history. I highly recommend it for anyone's personal library, or any public library.

(1.) **Asa Wright Nature Centre**, 2004, *The Leafcutter Ants* at the AWNC, educational poster on display at AWNC



## Management Notices

### New members; Volunteers; Publications

Management Notices 

### New Members

The Club warmly welcomes the following new members:

#### Ordinary members:

**Amy Deacon, Diane Boodoo, Elijah Williamson,  
Neil B. Gyan, Stephen O'Brian**

### New Website

The Club has transferred to a new domain name and email address. The change allows us more space and greater control to reach out to the public and stay in touch with members.

Website: [www.ttfnc.org](http://www.ttfnc.org)

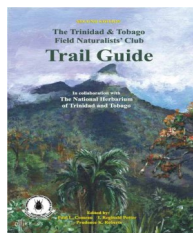
Email: [admin@ttfnc.org](mailto:admin@ttfnc.org)



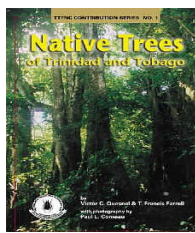
<http://www.facebook.com/pages/Trinidad-Tobago-Field-Naturalists-Club/68651412196?v=info>

## PUBLICATIONS

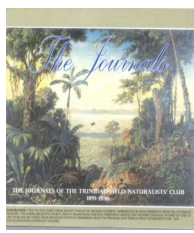
The following Club publications are available to members and non-members:



The TTFNC  
Trail Guide  
Members =  
TT\$200.00



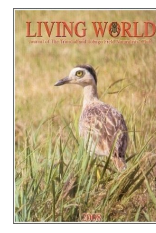
The Native  
Trees of T&T  
2nd Edition  
Members =  
TT\$100.00



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



Living World Journal 2008  
Living World Journal back issues  
Members price = free



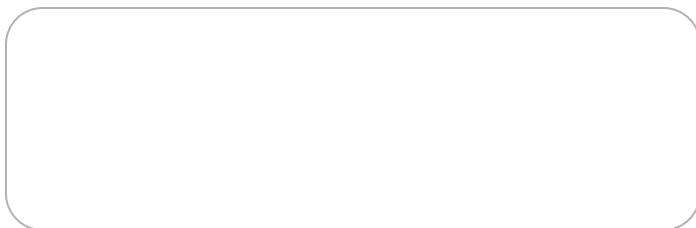
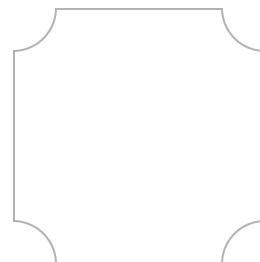
## MISCELLANEOUS

### 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 not</b> 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 2011 issue: <b>May 31st 2011</b></li></ul>   |
| 8 | Email           | <ul style="list-style-type: none"><li>• Electronic copies can be submitted to the 'Editor' at <a href="mailto:admin@ttfnc.org">admin@ttfnc.org</a></li><li>• Include the code <b>QB2011-2</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>   |
-