



THE FIELD NATURALIST

Quarterly Bulletin of the Trinidad and Tobago Field Naturalists' Club

January-March 1999.

No 1: 1999



1999 Programme MARCH-JUNE

LECTURES

11 March - Coastal Processes and Landforms, S.W. Trinidad by Julian Kenny

08 April - Importance of biological diversity by Peter Bacon

13 May - Role of zoos in maintaining vertebrate diversity by Kenneth Caesar

10 June - The oldest task in human history by Stan Temple.

FIELD TRIPS

28 March - Los Iros/ Chatham

23-25 April - Tobago (Camp)

30 May - Aripo Caves

26-27 June - Grande Riviere (Camp)

INSIDE

- * Past and present Thoughts of a Trinidad Field Naturalist
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1998 Christmas Party a huge success

There was no stopping the progressive nature of the Trinidad and Tobago Field Naturalists' Club, when it held its annual Christmas luncheon at Laguna Mar Estates on Sunday December 13 1998. A record 95 members and friends, including three specially invited guests, descended on the rustic North Coast beach resort, situated on the Paria Main Road, Blanchisseuse.

Our hosts, Fred and Barbara Zollna greeted us warmly as the day's activities began. Members began to arrive from 11:05 am. The crowd, initially, prompted some concern by Dan and I about the availability of parking spaces, until we decided to use the beach.



Richard Wallace & Sylvia Kacal enjoy the music

Some die-hard naturalists, led by Selwyn Gomes, unable to resist 'the call of the wild,' took a two-hour walk up the Marianne River, to a secluded area known as "Three Pools". This led Eurico Jardim to comically ask: "Why can't field naturalists sit and enjoy the serenity for only one day of the year." The answer was "it's in our blood." To which Eurico replied, "Not mine - today." With that he gathered his beach essentials along with his trademark short pants and departed for the beach.

Lunch was served from 11:45 a.m. in three parts. This year, I planned a menu with due consideration for our vegetarian members. Soya was the protein source of choice., while the meat lovers feasted on turkey and ham. Dessert was cake and ice cream and/or fruit. Members were also treated to the harmonious sounds of Blanchisseuse's parang group (with Glen Wilkes joining in). Next the first annual raffle was drawn and winners announced.

The day was a resounding success. What left a deep impression in my heart was the wide cross-section of members

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Past and present thoughts of a Trinidad Field Naturalist : 1943-1990

by
Arthur Greenhall

The following is an abridged version of an article written by Arthur Greenhall, one of the TTFNC's earliest members, for the Living World Centenary Issue Magazine in 1991. Though it covered the period 1934-1990, Arthur Greenhall's message to the Club's membership then is even more relevant to us now in 1999. Arthur Greenhall died in 1998. His article is reprinted here for the benefit of the present membership of the Trinidad and Tobago Field Naturalists' Club.

I first saw the Royal Victoria Institute in July 1934. A small museum occupied part of the ground floor. You could tell that it was a museum by the glass jars of pickled specimens of animals that lined some shelves. I was impressed by the large bushmaster, giant centipedes and the different kinds of bats. We met Prof. Ulrich of the Imperial College of Tropical Agriculture and Ludolf Wehekind, Government Hydrologist, both ardent field naturalists. Professor Ulrich told me of the work that he and Wehekind were doing with other Government officers on vampire bats that were transmitting rabies to people and livestock all over Trinidad and Tobago. Wehekind mentioned that it was almost 43 years ago that the Trinidad Field Naturalists' Club was formed in July 1891. About a dozen people mostly amateur naturalists, regularly met around this table to talk about what they had seen on their field trips. Sometimes they brought in specimens of interest, some of which were preserved in the glass museum jars. Plants and animals were sent to London for identification. Some new species had been named after members who collected them, for example the bats that had been named after Hart and Caracciolo.

Thus our first field work in Trinidad began and first impressions were profound. As we drove around the countryside from Chaguaramas to Mayaro we collected giant centipedes and fish-eating bats on Gasparee, vampire bats in Diego Martin and macajuels in Santa Cruz, saw Guacharo birds at Spring Hill, mapipire balcin in Maraval, giant spearnosed bats and giant cockroaches in the Heights of Guanapo, and paradox frogs at Mayaro, and looked for

huillia in the Nariva Swamp. Ludolf shared his extensive knowledge of natural history and also introduced me to the colourful folklore of Trinidad especially, Papa Bois, Dwens and Soucouyant.

What impressed me were the unspoiled mountain and lowland rainforests; cocoa, citrus and other fruit plantations that barely impinged or threatened nature; rivers and streams with water safe to swim in and drink; unique fresh-water and mangrove swamps each with special fauna and flora all playing out their roles; tiny ecosystems such as Aripo Savannah, elfin forests topping El Tucuche and Mt. Aripo, the unique Tamana caves, Pitch Lake, mud volcanos, Mora forests - all part of the larger Venezuelan mainland, all fragile because of the tiny land mass of Trinidad.

In 1953 my wife and I returned to Trinidad. In 1954 another severe outbreak of bat-transmitted rabies occurred and I was appointed Government Zoologist in charge of the anti-rabies bat crews. I seriously studied the unusual bat fauna of Trinidad and Tobago. I travelled extensively over Trinidad and Tobago, talked with many people and became interested in their various cultures. I was privileged to observe the political evolution of the country: self government, almost part of a West Indian Federation and finally Independence. For reasons beyond our control we left Trinidad. We have kept in close touch over the years with regular visits.

Great changes have taken place, many affecting the basic philosophy of the Trinidad and Tobago Field Naturalists' club. The majestic forests are being destroyed, mountainsides

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Hollis Reservoir Watershed Project : a summary

by

Laurent De Verteuil and Mike Oatham

The Botany Group's work, conducted in conjunction with UWI, Plant Sciences Department, involved identifying and mapping spatial distribution and size of trees in one hectare which was subdivided into 25 subplots.

The Hollis Reservoir is an artificial lake caused by the damming of the area. It is lush rainforest. According to the 1992 map "*Inventory of the Indigenous Forest of Trinidad*" published by the Forestry Division of the Ministry of Agriculture, Lands and Fisheries, The Hollis Catchment comprises:

Crappo - Debasse (evergreen seasonal)

Serrette - Bois Gris (lower montane)

Pois Doux - Redwood (seasonal montane)

Bois Band - Guatecare (montane rainforest)

Eight trips were made between October 1997 and September 1998. The one hectare plot was laid out and subdivided into 25 subplots (~ 20x20). One hundred and sixty two trees in eight subplots (CBH>32 cm) were than measured and tagged.

In 1999, the grid is to be completed and the trees need to be identified. A trip is planned for once every 4 or 6 weeks on a Sunday. The grid will remain permanent and it is hoped that The Club will return every 2-3 years to check for changes. Permanent, monitored, forestry plots allow important basic data to be collected, such as tree rates of growth, mortality, compositional changes, effects of drought, fire, hurricane, disease, and so forth. Permanent forestry plots also provide a framework for field studies of other organisms, from fungi and ants to birds, reptiles and mammals.

Botany for the Beginner

by Anne Hilton with the assistance of, and drawings by Frankie Farrell

In this issue, we reprint below, with the permission of Anne Hilton and Frankie Farrell, an edited version of the first in a series of articles entitled "Botany for the Beginner" which was first published in the September-October 1979 of the "Trinidad Naturalist" Magazine. We are hoping to continue providing information on this topic and others.

Editor: Calista Pierre

Contributors:

Carrall Alexander

Laurent De Verteuil

Sheldon Edwards

Frankie Farrell

Anne Hilton

TTFNC Management Committee

The TTFNC is a non-profit, non-governmental organisation. Our Mission is "To foster education and knowledge on natural history and to encourage and promote activities that would lead to the appreciation, preservation and conservation of our natural heritage."

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SPOT THE SOLANACEAE...

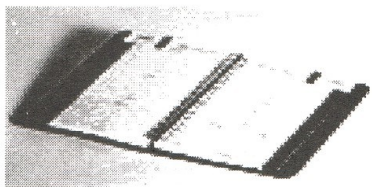
...or as the serious, advanced botanists might headline this article 'Scheme for the Identification of Solanaceae' (pronounced soul-an-a-see... with the accent on the 'a'). Most of us buy two or three products of the Solanaceae family every week and too many of us have at least one complete and very unwelcome plant in our backyards. What are these Solanaceae that we have been using and/or growing for years without knowing it? We'll come to that after completing the identification scheme.

The first step is to find out whether or

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MANAGEMENT NOTES & NOTICES

MARK YOUR CALENDAR!!



- March 24** Shane T. Ballah: The Interactive Ecology of Heliconia Hirsuta and Its Ants. UWI. Dept. of Life Sciences Seminar.
- June 05** World Environment Day
- July 11** Headquarters Opening/
New Members' Day
- October** Fund-Raising Dinner
- October 16** World Food Day

PEAKE'S DISCOUNTS ON CAMPING GEAR

Remember to get your camping and hiking gear from Thomas Peake with up to 15% discount for Club members (with your membership card).

The **Fund Raising Committee** urgently needs members willing to donate time and effort.

CORPORATE SPONSORSHIP NEEDED!!

We are seeking sponsorship for the following Publications on the Flora of Trinidad and Tobago

1. Native Trees of Trinidad and Tobago by Frankie Farrell and Victor Quesnel
2. The Palm Book of Trinidad and Tobago - including the Eastern Caribbean by Paul Comeau, Yasmin Comeau and Winston Johnson

NATURAL HISTORY RESOURCE CENTER

A Natural History Resource Center comprising among others, a library and an office is to be established at #3 Keate Street Port of Spain. The Opening Date is scheduled for July 11 1999.

Volunteers are needed to develop the Resource Center.

Donations of Office Equipment and Furniture will be welcome.

THANK you !!

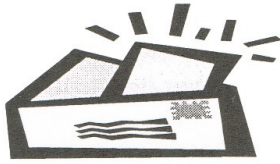
The Management Committee extends its sincere thanks and appreciation to the previous Editorial Team comprising Paul Comeau, Dan Jaggernauth, Haroon Husain for the yeoman work they have done with the Quarterly Bulletin in the past years. We look forward to their continued support and contributions.

The Management Committee acknowledges with many thanks the work of Graham White, Member of 1998 Management Team, in the preparation of the Programme of Activities for 1999/2000.

The Club also extends 'Thanks' to the Pointe-a-Pierre Wild Fowl Trust for sponsoring the recent visit of the Aranguez Junior Secondary School to its facilities.

MAILBAG

A "Latin American Award for Research in Science, Technology and Development" is being organized by the Network of Postgraduates in the Planning and Management of Science and Technology in Latin America. The Prize is US\$5000.



Contact the Secretary for details.

Environmental Outreach Programme

The TTFNC, in an effort to involve the youth and school population in environmental/ natural history matters has been conducting a programme with Aranguet Junior Secondary School, since the late 1998. The School contacted the Club and informed us that a class of approximately 30 students wanted to become young field naturalists. A programme was

NEWS, VIEWS

Muriel Pierre wins Award!!

Muriel, one of the Club's oldest members, and an avid photographer, has won the Horticultural Society's Rapsey

Award for best display for fruits — from flowers to processed fruits. **(More in the next issue!)**



The TTFNC ventured bravely into unexplored territory of a different kind, when it opened a Carnival Bar at its #3 Keate Street on Saturday

13th 1999, in an effort to raise funds. The venture yielded \$1700.00 profit. It was made possible through the hard-work and dedication of Selwyn Gomes, Juanita Henry, Anthony James, Dan Jaggernaut, Murry Guppy, Peter and Marla and other members who assisted in various ways. Special thanks to Juanita Henry and Anthony James who dedicated a lot of time and effort to the venture.

1998 Christmas Party (cont'd.. from Page 1)

present - young and old members of the Club - with between 1-20 years membership; families and friends who hadn't seen each other for a while. It was so good to see everyone meeting and greeting, laughing and talking, making new friends and exchanging ideas. The evening came to a close about 6:00 p.m. as members departed in a joyous mood.

I would like to take this opportunity to thank the fund-raising committee for a job well done. Also to Selwyn Gomes for assisting me with the Christmas party by collecting monies and informing members about the events. To Dan Jaggernaut for a successful 1998 field trips curriculum; to Carrall Alexander for his refreshing vitality in seeking and obtaining an office for the Club and for re-energizing the fund-raising committee; and to other members of the 1998 Executive: Laurent, Courtenay, Calista and Graham we are indebted to you for your concerted efforts and ideas in helping the Club become a stronger organisation.



A section of the TTFNC members at the Party

To Everyone Happy 1999.

Sheldon Edwards.

Solanaceae... from Page 3

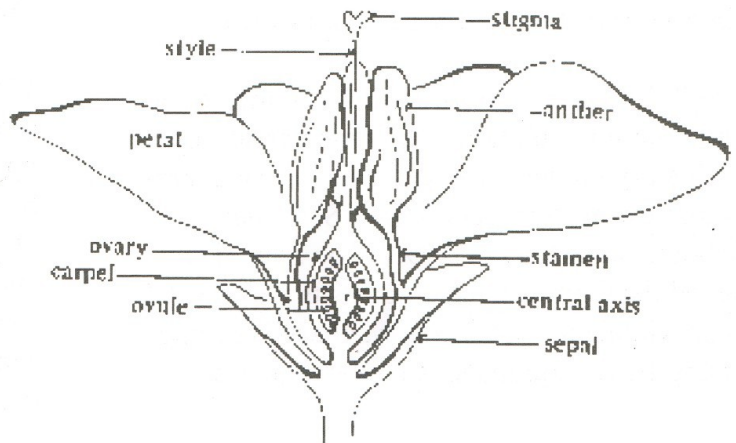
not the plant is a Dicotyledon. 'Dicotyledon' is the botanical way to say 'two-seed leaves'. Practise it to impress your friends (say ...die-cot-ee-lee-don). Not many people have the patience to plant a seed and stand guard over it until it pops out of the ground waving its two seed leaves, although gardeners must have noticed this without realising that they were seeing a dicotyledon in action. With a large seed, a scapel and a microscope the impatient new botanist can cut open the seed and count the leaves in the embryo - but this can be rather difficult with the smaller seeds. If there are two seed leaves the plant will be a dicotyledon, if there is only one seed leaf the plant will prove to be a monocotyledon.

As the plant grows larger the botanist can take a good look at the leaves. Further proof that the plant is a dicotyledon is the fact that the leaves have main veins which are arranged in a herringbone fashion; Apart from the main veins the leaves are not veined. Further evidence that a plant is a dicotyledon comes when it starts to flower. The parts of these flowers are usually arranged in fives (five petals, sepals and stamens.) Simply to confuse the amateur, sometimes they occur in twos and fours, - and rarely - in threes.

Now in our search for the *Solanaceae*... the question is... does the plant belong to the sub-class called *Sympetalae*? If the petals are joined to one another it does. Having established that fact, we look for distinguishing features which will indicate that the plant is of the order *Tubiflorae*. This order usually has flowers with five sepals, five petals and five stamens attached to the petals. There are usually two divisions (technically called carpels) to the ovary which is superior. This does not mean that the ovaries of the *Tubiflorae* are bigger or better than any other order. It is a

next technical description meaning 'above.' In short the stamens and petals and sepals all grow out from and are attached **below** the ovary - which is the part that will grow into a fruit when the flower has withered away.

Now, at long last, we come to the *Solanaceae* family. The largest of the family are shrubs, the rest are herbs - though you and I might prefer the word 'weed' or 'fruit' or 'vegetable', depending on whether the plant is useful to us or not.



Section through Flower of *Solanum Tuberosum*

Leaves on a plant belonging to the *Solanaceae* family are arranged alternately like this:- The flowers are hermaphrodite -which means that the male parts (antlers and stamens) and the female parts (stigma and style) are both a part of each flower. The flower have a nice, regular, symmetrical shape, their stamens are usually separate and attached to the petals. The carpels (divisions remember?) of the ovary have a great many ovules. These ovules are attached to the central axis (the middle part of the ovary). Flowers of the *Solanaceae* family have only one style. The fruit ripens into a berry - when it is soft and succulent and full of seeds - or a capsule - in which case it is dry and also full of seeds.

Now with the help of the diagram go out and examine

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Environmental...from Page 5

started by the President after consultation with the School's Principal and class teacher, on Wednesdays between 3:00-5.00 pm with the group made up of Forms 1's and 2's.

To date the group has visited the Botanic Gardens, the Emperor Valley Zoo and Pointe a Pierre Wild-Fowl Trust. Proposed projects include: 1) A visit to the Herbarium and the Arena Forest Reserve and learning the basics of identifying trees 2) A visit to Asa Wright Nature Centre.

Solanaceae...from Page 6

the plants, flowers and fruits of your friendly neighbourhood *Solanaceae*. Watch, for example, those tomato seedlings waving their two seed leaves; wait for the seedlings to grow then study their veins, the alternate leaves, examine the flowers and cut open the fruit .. see how the seeds - which were tiny ovules when the plant was flowering - all cluster around the central axis. Examine a melongene, *Solanum melongene*, count the green sepals on the outside, then see how many seeds there are inside that 'berry'. The potato is also a member of the *Solanaceae* family. So too are Angel's Trumpet and that dangerous weed, datura. Also, the weed, *Solanum stramonifolium* (also called 'wild tomato' or 'coco-chat' though 'dog teeth' is a better description of this broad-leaved plant with nasty dark red prickles (technically 'spines') all along the veins on its leaves. There are many more plants belonging to this family. Look out for *Physalis angulata* L. with its lantern-shaped fruits, its a common weed in Trinidad. Good botanising - and watch out for the prickles (sorry, spines) on *Solanum stramonifolium*.

Trinidad Naturalist. vol. 2. no. 11.
Sept. - Oct. 1979

NEWS, VIEWS (Cont'd from Page 5)

The Trinidad and Tobago Field Naturalists' Club participated in the Horticultural Society Exhibition held from March 5-7 1999 at the St John's Ambulance Headquarters, Port of Spain.

Past and present... from Page 2

and caves have been quarried for gravel, the water tables have dropped to dangerous levels, the waterways are polluted, even the bottom-loving scavenger fishes are being exported for the foreign pet trade. World famous Caroni and Nariva Swamps are being replaced by pollutants, even the mangroves, natural filters, are fast disappearing for land development. Excellent hunting and conservation regulations have been passed but never seriously accepted and therefore either ignored or not enforced or both.

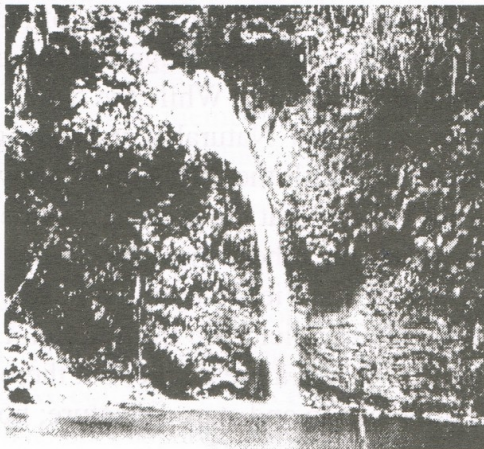
All the above is taking place as you watch. As long as I have known Trinidad and Tobago, the Field Naturalists' Club was the single non-government group actively concerned with the abuses of their natural heritage and acted to stop them. The objectives of the club are to bring together persons interested in the study of natural history, the diffusion of knowledge thereof and the conservation of nature. While the club's publications the Field Naturalist and Living World admirably fulfill the diffusion of knowledge I do not believe that the present membership adequately meets the other objective. In the October 1990 issue of the Field Naturalist I sadly read the following about a field trip from Matelot to Blanchisseuse: "It was a great hike, but there was not much time to stop and stare at Nature; however, there was much to see."

*Living World Magazine: Special Centenary
Issue 1991-1992. pp. 23-24.*

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

THE FIELD NATURALIST

NEXT ISSUE



COPE MEETS WITH AMCHAM

BRITISH GAS PHOTO COMPETITION - Deadline
May 1999

AND MORE.....

FROM THE EDITOR:

YOUR ARTICLES, NEWS, IDEAS, LETTERS WILL BE GREATLY APPRECIATED!!

