THE FIELD NATURALIST

BULLETIN OF THE TRINIDAD AND TOBAGO FIELD NATURALISTS' CLUB

THIRD QUARTER OF 1995

CLUB EVENTS FOR THIS QUARTER

Proposed Field Trips

Sunday 30 July 1995	Monos	Trail Guide #04
Sunday 27 August 1995	South Coast West of Guayaguayare	
Sunday 24 September 1995	Karamat Mud Volcano	Trail Guide #32

Tobago

Field trips will be determined at the monthly meeting preceding the field trip.

Lectures For This Quarter

13 July 1995	Paul Comeau (Environmental Consultant) NATIVE PALMS
10 August 1995	MEMBERS EVENING
14 September 1995	Derek Hudson (The Trinidad and Tobago Geological Society) GEOLOGICAL PROCESSES SHAPING OUR WORLD

FROM THE EDITOR

A reminder to those of you who have not yet paid your subs for 1995. They became due on January 1st! Hurry, membership fees - $30. (Ordinary), $500. (Life) and $15. (Junior).

We are saddened by the demise of author Gerald Durrell 1925 - 1995. Mr Durrell worked in various parts of the world including Guyana. A memorial is included in this issue.

We are inviting comments/alternative suggestions to the Draft mission statement on page 11. The Conservation In Action sub-committee will incorporate the feedback from the wider membership in a seminar/workshop on developing the vision and mission statement that will guide the club in its ongoing development.

Rosemary Hernandez

LECTURES

13 April 1995

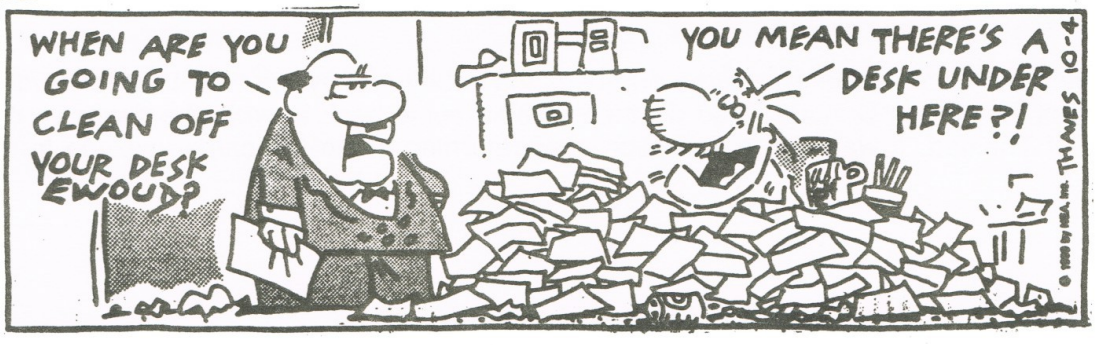
Stanley A Temple (University of The West Indies), SUSTAINABLE DEVELOPMENT: A CONSERVATION BIOLOGIST'S PERSPECTIVE

As human populations continue to increase at exponential rates, scientists have grappled with the question of how this growing population will be able to obtain the resources it requires without despoiling the earthly environment. They noted that many negative impacts on the environment were driven by growth in human population density, per capita consumption of resource and the use of damaging technologies to obtain resources. Beginning in the 1970's ecologists began to explore the probable limits to this growth, but classical economists either implicitly rejected this notion of limitation and instead argued that "sustainable growth" could be achieved through measures such as exploration, resource substitution, increased efficiency and recycling. By the 1990's this idea of sustainable growth came to be viewed as an oxymoron, and the debate shifted to the concept of sustainable development. The paradigm shift, from seeking quantitative growth to qualitative development, transformed the central challenge from promoting continued expansion of consumption to improving the quality of life without continually increasing the quantity of resources consumed. Sustainable development has become a buzz word as a result of a series of international conferences and reports issued since the term was coined in 1980. Nonetheless, definitions of sustainable development vary widely between extremes that emphasize either anthropocentric priorities (with human needs paramount) or ecocentric priorities (with environmental concerns paramount). Regardless of the emphasis, sustainability implies a goal of using resources in ways that will meet present needs without abusing those resources in ways that will compromise their use in the future. There are analogies to financial strategies of wisely using principle and interest. A wise investor tries to live off the interest on an investment while leaving the principle to generate more income. At the level of renewable biological resources (populations of fish, wildlife, plants, trees) sustainability means harvesting at a rate no greater than the resource's ability to replace the losses through reproduction and growth. Although the basic requirements for achieving this equilibrium are well understood, human beings continue to overexploit. Recent analyses show that in Trinidad almost all game species are being overharvested and game populations are declining. At the ecosystem level sustainability means using the goods and services provided by a natural ecosystem while maintaining its integrity and stability, as revealed by the status of its

biological diversity and its capacity to function normally. Again, the limits to sustainability are relatively clear, but human beings continue to stress ecosystems by polluting them beyond their capacities for absorbing or decomposing pollutants and destroying and degrading them faster than they can recover.

The concept of sustainability seems so straightforward; why do we have such a hard time achieving it? There are many powerful biases against sustainability, of which 4 seem particularly intractable: continued population growth, uncertainty, abuse of common property and discounting the future. The problem of continued population growth should need little elaboration on a planet that is already struggling under the burden of over 5 billion of us and suffers an additional 85 million each year. There are more and more of us using more and more of the earth's resources and transforming more and more of the earth's surface to our own selfish uses. We are locked in a race in which we seem to be steadily losing ground. As soon as we figure out how to live sustainably today there are more of us to accommodate, rendering the strategy inadequate tomorrow. Like the red queen in *Alice In Wonderland,* we will have to run harder and harder just to stay in place. Uncertainty prevents us from taking action. Doomsday prophets are usually ignored because we are uncertain about their predictions. Scientists are making dire predictions about the future of the planet (e.g., global warming, mass extinctions) that are of uncertain validity, so we tend to ignore them. Human nature tends to favor this type of denial; we optimistically like to believe that the unthinkable won't occur (one observer, referring to the infamous unsinkable ship, called this tendency the "Titanic Effect"). The result is we rarely seem to take action until it's too late. Abuse of common property occurs when exploiters of a common resource (air, water, oceans, public lands) have no incentive to conserve it. Often termed the "tragedy of the commons," this problem occurs when individuals can make personal profits by passing on costs to the community at large. Discharging pollutants into publicly owned waters makes good sense from a business point of view; it's a free way to get rid of wastes. But, there are communal costs in degraded water quality that are borne by society. Squatters in the publicly owned forests of Trinidad are making personal profits while society pays the communal costs of degraded watersheds that no longer provide ecological services of erosion control and regulation of water flow. Without strict regulation by a custodian charged with safeguarding public resources from private abusers (usually government), the tragedy of the commons will continue to threaten sustainable use of public resources. Discounting of the future results when people are insecure about tomorrow and seek to exploit a resource now because they are unsure about its availability in the future. People have been warned about the dangers of short-sighted "get-rich-quick" schemes since the Brothers Grimm told their tale of the goose that laid the golden egg. But, if an individual is poor, has no land tenure, lives under political or economic uncertainties or is in some other way insecure, it makes perfectly rational sense for them to use resources now in a nonsustainable way or risk losing them to someone else. In Trinidad, nonsustainable forestry and losses of biological diversity result from clear cutting tropical forests for quick short-term profits rather than harvesting them sustainably and spreading more modest profits out over a long term.

Overcoming these powerful biases against sustainability will take a concerted effort. The problems must be recognized and acknowledged. Societal forces responsible for problems must be understood. And, effective strategies for change must be employed as a matter of urgency. There are roles for individuals, corporations, nongovernmental organizations, governments and international institutions. If we fall short of achieving the goal of sustainable development, the present generation will have failed one of its most important functions on this planet: being good ancestors.



11 May 1995

Grace Sirju-Charan (University of The West Indies), Hamid Farabi (University of The West Indies), Nasser Mustapha (University of The West Indies), and Stanley Temple (University of The West Indies), PANEL DISCUSSION ON SUSTAINABLE DEVELOPMENT

Each of the 4 panel members was asked independently to identify the 2 most important obstacles that stand in the way of achieving sustainable development in Trinidad and Tobago. Their list included:

Inappropriate public policy that arises from strong, unchallenged biases among policy makers.

Inadequacy of the scientific principles and technologies that must provide the basis for sustainability.

Uncritical adoption of inappropriate models of development and the technologies that accompany them, which is often driven by a desire to imitate rich nations.

Excessive consumption of resources, driven by the "disease" of consumerism and the blind quest for affluence.

Adoption of inappropriate definitions for development that fail to incorporate people's real needs and influence how they perceive and use resources.

Ignorance of the consequences of current decisions for future generations and resulting failure to assume responsibility.

Continued population growth on a small island that already has one of the highest human population densities in the western hemisphere.

Failure of any institution in Trinidad and Tobago to espouse and promote a clear vision of sustainable development for the islands.

These points generated lively discussion from the floor as the relative importance of various factors was debated. It was noted that none of the 4 panel members had identified exactly the same obstacles.

8 June 1995

Victor C Quesnel (The Trinidad and Tobago Field Naturalists' Club), NATURAL HISTORY IN YOUR BACKYARD

The easiest way for me to approach this topic is to relate what I myself have done in my backyard and for this purpose front yards, side yards and garages will count as backyards. My career as a backyard naturalist began very early, at age twelve in 1938, when I discovered a large snail, *Strophocheilus oblongus* , in my grandmother's backyard and confined it to a cardboard box. The next morning there were two eggs there as well, almost as large as pigeon eggs, and I began a watch to see the hatching of the baby snails I was sure would follow. I added to the box a frangipani caterpillar, *Pseudosphinx tetrio*, which soon pupated, and I looked into the box eagerly every morning to check on the inhabitants. I was not yet a scientist so recorded nothing, but the experiment came to an abrupt end when a maid found the box and threw out what were to her useless and probably disgusting contents. To this day I do not know how long it takes for eggs of that species of snail to hatch and only once since then have I seen an adult frangipani moth.

That same month bird watching became an absorbing hobby and by the time I left for study at the University of Toronto in Canada I had decided I would come back to write the definitive book on the birds of Trinidad. It was not to be. Soon after returning home I became involved in reviving

the club and became it's secretary in January 1954. This took so much of my time I decided to turn to the study of lizards in my backyard instead of trying to find time to go out into "the bush" after birds.

I began with the Streak Lizard, *Gonotodes vittatus*, which was common. I caught the adults and put them in cages. I studied their behaviour. I watched them lay eggs; I timed the period of incubation of the eggs. I watched new-born lizards grow to adulthood and lay eggs of their own. I immersed myself in all aspects of the biology of this lizard that I could conveniently study for the next four years and must have spent hundreds of hours in observation time, but I never saw them mate. My observations established that the female can lay eggs one every month after beginning to lay even in the absence of a male, so she can store sperm, and I now believe that she may mate only once in her life, at the age of about one year. I studied their shade and light preferences and also their feeding habits. What I considered publishable is in the Journal of the Trinidad and Tobago Field Naturalists' Club 1957.

After moving to Petit Valley a chance observation of *Ameiva* lizards (zandolie) mating on the lawn led to several years of study of their mating behaviour. Briefly, the behaviour consists of the male moving in towards the female in a spiral eventually ending in a tight circle with body contact. This continues for many minutes with the male stopping across the path of the female as she moves so that she must pass either over or under him. Eventually the female becomes more passive, the male mounts her, rubs her back with a side to side motion of his body whereupon she responds by arching her tail and he slips under to effect copulation. I did not keep these lizards in cages so I did not study incubation of the eggs. My observations were published in the Journal of the Trinidad and Tobago Field Naturalists' Club1978-1979 (which should have been 1979-1980).

Another chance observation of a copulating pair of praying mantises, *Acontiothespis multicolor*, led to a study of courtship, egg-laying and egg incubation in this species. Courtship is quite complex, involving raising of the wings, bending the abdomen forwards and "stamping" the middle leg on the side opposite the bend. I had no trouble finding specimens in the flowering mango trees and in introducing males to females. This study was published in the Journal of the T&TFNC 1967. In all the matings I observed the female made no attempt whatever to eat the male. I knew that the female of the European mantis regularly eats the male during copulation and the fact that I wanted to see if this mantis did the same was the main reason for beginning the study.

In more recent times I have studied the food of fruit-eating bats (in my bedroom this time), the rate of growth of the crapaud, *Bufo marinus*, (in cages in the garage), the reproductive cycle of the wasp, *Myschocyttarus punctatus,* in nests hanging from the roof of the house and the feeding habits of birds feeding on the black sage bushes that I could see from my study window. None of this is published yet.

The foregoing should give the potential backyard naturalist plenty ideas as regards what animals to study and what can be studied about them. Every backyard will have ants, millipedes and snails and any lawn will have mole crickets. How many mole cricket species inhabit any one lawn and what are their food preferences? Not such an easy topic but a good reason for not mowing the lawn. The backyard naturalist will find topics related to growth, reproduction and feeding the easiest to study. Feeding ranges and territorial behaviour are not so easy unless the species is small and easily marked, but small snails could be easily studied. (For more detail on what to study see the Journal of the T&TFNC 1969 pp 5-7.)

Plants are even easier to study in the backyard than animals. Most weeds will grow in any sort of soil and their flowering and seeding behaviour studied. One can also study pollinators and numerous insects that feed on the plants. I compared three plants of *Cassia tora*, one large, about 1 metre tall, one very small, about 20 cm tall and one intermediate between the two. Total seed production was 7003, 123 and 1017 respectively. (It is a feature of weeds that they will produce some seed even when circumstances restrict growth.) Many seeds were eaten by

Bruchid beetles; I made counts of good and eaten seeds in many pods. Shoots with buds enclosed with a stocking did not set seeds when the flowers opened. Open flowers on uncovered shoots were entered by small greenish bees so I concluded that this bee was at least one of the pollinators.

Virtually nothing is known about the stimulus for flowering in the vast majority of tropical plants. Having learnt recently that black poui, *Tabebuia rufescens* will flower at a year old when it is less than half a metre tall has encouraged me to grow four plants in pots which I will use next dry season to test the hypothesis that drought is required for the production of flower buds while moisture is required to make the buds open. I will also try to discover whether it is water at the root or at the bud which acts as the trigger. Putting a plant in a pot is like putting an animal in a cage. It makes manipulation of its behaviour much easier.

The time when flowers open and how long they last is also a convenient topic for study. Casual observations suggested to me that the flowers of the tiny weed *Spigelia anthelmia* opened for only a short time during the day. On 18 November 1989 I made counts of open flowers on two plants, side by side, every half an hour. No flowers opened in the morning. None was open at 1230 hr. Five and two were open at 1300 hr and the maxima of 35 and 24 were reached at 1430 hr. After 1530 hr the flowers began to close again and by 1700 hr all flowers had closed and the corollas fallen off. I did another count on other plants in June 1991 when day length was about an hour longer and found that the flowers began opening about the same time but remained open about an hour longer. *Ruellia tuberosa,* minny root, on the other hand is a plant that flowers only in the morning. What would happen if *Spigelia* in pots were moved to a dark cupboard at noon or 1300 hr? Would they flower in the dark? I have no idea. It's something to try. If at about 0930 hr flowering minny root were removed to a dark cupboard would the flowers remain on longer? Again I have no idea.

Only once have I seen *Hibiscus* set seed in Trinidad, yet over many years I have consistently seen a clump of *Hibiscus* at Charlotteville, Tobago, with fruit and seeds. Is there something special about these plants in Tobago? Would they produce seed in Trinidad? Is there some pollinator in Tobago that is lacking in Trinidad? I have taken seeds from the Tobago plants and have two seedlings now growing just outside my study window where I hope soon to start trying to answer those questions. There is something to be learned about any plant you choose in your backyard; get out there and start studying it.

13 July 1995

Paul L Comeau (Environmental Consultant), NATIVE PALMS OF TRINIDAD AND TOBAGO

Amongst families of vascular plants, palms rank nineteenth with 2675 species while amongst the monocots they rank sixth behind orchids, grasses, lilies, sedges and aroids. The earliest fossil records of true palms date from the Upper Cretaceous about 65 million years ago.

Several species of palm are of major economic importance: *Cocos nucifera* (coconut), *Elaeis guineensis* (oil palm), *Phoenix dactylifera* (date palm), and *Daemonorops* (rattan). Only the first is widespread in Trinidad which according to Kingsley (1889) was established on the Manzanilla coast by an East Indian vessel which was wrecked there. Today at Icacos alone there are over 9000 acres of land planted in coconut. Globally coconut's economic importance has waned since it was replaced by soya beans in 1962 as a major source of fats and oils.

Current taxonomic thinking (Andrew Henderson pers. comm.) lists 23 native species of palm for Trinidad and Tobago of which one *Astrocaryum* may have been introduced by the Amerindians. This is fewer than the 39 species Bailey (1947) describes which represent the only publication dealing exclusively with native palms. Bailey recognized 13 species of *Bactris*, 6 species of *Desmoncus*, and 6 species of *Euterpe* while Henderson has 4 species of *Bactris*, 2 *Desmoncus* and 3 *Euterpe*. Bailey, who based his descriptions on field work, was a taxonomic splitter, while Henderson, who referred only to the literature, was a lumper. Perhaps someone

like Robert Read formerly of The Smithsonian will settle the matter if he ever publishes his taxonomic review of Trinidad and Tobago palms. Native palms can be categorized according to leaf shape, palmate (*Coccothrinax, Sabal, Mauritia*) vs pinnate; fire tolerance (*Maximiliana, Acrocomia, Mauritia*); dry habitats (*Coccothrinax, Acrocomia, Scheelea*) vs wet (*Mauritia*); common(*Maximiliana*) vs rare (*Scheelea, Astrocaryum*); short (*Bactris simplicifrons*) vs tall (*Roystonea* up to 45m); and distinctive fruits (warted *Manicaria*, and imbricate *Mauritia*).

In Trinidad palm-dominated communities include *Mauritia, Bactris major, Maximiliana maripa, Manicaria saccifera* and *Roystonea oleracea*. Two native palms are considered to be endemic: *Euterpe broadwayae*, and *Prestoea acuminata*. The former occurs in Trinidad and Tobago so its endemism may be questioned.

Present economic uses of native palms is limited. They were probably more widely utilized by the Amerindians, e.g., Kingsley (1889) reports that sago (starch bread) was made from the pith of *Mauritia flexuosa* at Pitch Lake. Native palms are currently used as vegetables (heart of palm or cabbage): *Roystonea, Euterpe precatoria, E. oleracea, Acrocomia*, plus *Cocos*; thatch: *Sabal, Manicaria, Maximiliana;* walking sticks; *Acrocomia, Prestoea pubigera, Geonoma,* edible fruit; *Acrocomia, Bactris, Maximiliana*, *Manicaria*; building material: *Bactris, Euterpe, Roystonea, Sabal*; and handicraft: *Desmoncus, Mauritia, Euterpe precatoria*. Those that are underutilized include *Oenocarpus* and *Mauritia*.

R. Hernandez

Ref. Bailey, L.H. 1947. Indigenous Palms of Trinidad & Tobago. Gent. Herb., 7:351-445
Kingsley, C. 1889. *At Last a Christmas in The West Indies*. Macmillan, London.

Wayne Conrad

Coconuts

FIELD TRIP REPORTS

FIG WALK (FIG WHARF)
By: Dan L Jaggernauth

28-29 January 1995 (Overnight Camp)

Our first field trip for 1995 was to Fig Walk and 24 persons joined us. After notifying the Matura Police about our overnight research trip, we drove into the Salybia Matura Trace. Extensive construction work was in progress on a concrete bridge nearby. Driving for 15 minutes on a road with pot holes, we parked our vehicles in front of the last house. Our caretaker and watchman, Valman Mohammed, then took over.

Starting off quite late at 09:45, our tour leader Peter Joseph and his friend Stephen led the way. Walking along a logging trail we turned right and entered a forested area. After 25 minutes we crossed a river. On the trail again, taking another right turn, we climbed steeply until we reached a ridge. Around us were massive mora trees, *Mora excelsa*, with hundreds of saplings beneath them. We took a short rest and then came *Procnias averano* (the bearded bellbird), also called the anvil bird or campanero, making that powerful call, boc-boc. Two foreigners who thought, from the call, that it was a very large bird, were amazed when they saw the small bird with its white underparts, brown head and bearded throat. Heading downhill, one man who walked with a spade in his hand, used it as a walking stick, getting his balance over the muddy trail. Upon reaching the river, a deep pool awaited and some members had an early swim.

Dan J Fig Trees (banana) Fig Walk

We proceeded up river for some time until our tour leader, Peter Joseph, took a turn off which led to a sulphur spring. At the site, the sulphuric smell was very strong and dark coloured water emerged from a small pool between the rocks. After a 5 minute walk we came upon a hunter's camp around which were many plantain trees with large bunches and 3 Paw paw trees.

The roof of the camp was a tarpaulin, stretcher-like hammocks were inside, also cooking utensils. Peter then gave us half of a bunch of ripe plantain which he hid for us under a bag. Leaving the camp site we continued walking non-stop until we arrived at another hunter's camp. Nearby was a very tall chataigne tree which was over 15 metres high. As the rain came we sheltered in the camp then continued on the trail. A large dry log over a stream provided an ideal footpath. Another 15 minutes walk brought us to a large river. We walked until we came to a deep pool, with the river passing through a rock. We decided to pitch our camp on an elevated area nearby.

While constructing our tents, we were interrupted by the *Trogan violaceus* (Violaceous trogan) making a coo-coo call. It was about 12 metres above us on a tree. It was a beautiful bird with a bright yellow chest. Parts of the head were blue and greenish, with black and white stripes on the tail. It was identified by Ian Cross. Soon after our tents were up, the rain came and tested them and we made some adjustments. By this time the water was boiling in the pot on our kerosene stove and Murray Guppy made coffee for everyone. After drinking their coffee, Peter and Stephen left for their hunter's camp not far off, indicating they would return at 06:00 next morning and we would head further up to view the fig trees at Fig Walk. Delicious food was prepared by Mary Bain and V. Celestine. As night came, Edmund Charles and Jalaludin Khan went out on their research. The tent was buzzing with activity and at 20:40 deep in the forest a young lady pulled out a Blast newspaper from her bag and began to read some rude jokes. The rain had stopped hours before but droplets of water, formed by condensation of water vapour from the air, kept falling on our tents. The place was cold and when the air in the forest became saturated with too much moisture, it formed the "dew" leading to the droplets on our tents. On many overnight camps when it is calm and the skies are cloudless, we have seen dew on leaves and grasses, sometimes running off as water and giving moisture to the ground. The phenomenon of the formation of dew was also seen on our cooking pot which was left outside the tent. By 23:50 Edmund and Jalaludin returned, indicating that they had seen *Steatornis caripensis* (oil birds). For those who went down to the river and sat under the starry night, it will always remain a night to remember.

Next morning at 05:00 we were awakened by the crowing of a rooster. We doubted this could have happened in Fig Walk but it crowed thrice. It was subsequently realized that the imitation, an identical replica of a rooster, was done by military trained Ian Cross. Gita Dwarika awoke to celebrate her nineteenth birthday amidst the luxuriant rain forest of the fig walk. By this time Murray Guppy had prepared hot coffee for all the ladies and ripe boiled plantain for breakfast. Even those who did not like plantain said it was the best breakfast in many years. Peter and Stephen arrived at 06:45 and shared in our breakfast. Some members preferred to remain in camp, others headed further up fig walk.

While walking through the clean waters, we saw a fallen tree by the river with a beautiful plant which was identified as *Anthurium hookeri*. Continuing we saw a strange, strapped looking man, walking in front of us. Upon seeing us he stopped, clasped his hands as if in prayer and lifted his head upwards to the sky. He held a covered 20 litre white bucket in his right hand and a cutlass in his left. He said "the last time I saw people around here they had paper in their hands, where are your maps?" We all walked on together, he followed us for some time and then slipped into the bushes. Taking a left turn we passed through a narrow gorge, after 10 minutes we saw three fig plants (banana trees) on our left, approximately 6 metres from the river. The trees appeared to be very healthy and we felt a great sense of accomplishment to actually behold what we really wanted to see. We asked our tour leader if there were other fig trees further up but he replied that he was not sure. Time was against us so we returned to camp, folded our tarpaulin and tidied the area Our return journey took much less time than our way in and we arrived at our vehicles at 16:45. The cars were safe and the watchman gave us a large bag of sweet portugals. I drove to Rampanalgas, dropped off our tour leader Peter Joseph and journeyed safely home.

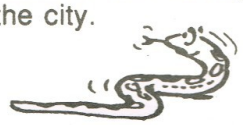
Violaceous Trogon,

EL CERRO DEL ARIPO
By: Savitri Mahabir

30 April 1995

In the solemn calm of the awakening morn I set out, apprehensive of another exciting adventure, our trip to El Cerro del Aripo. I learned afterwards that this mountain is 13 feet higher than El Tucuche. The drive to our destination was exhilarating and refreshing. The higher we climbed the more spectacular the scenery. The Tamana Plateau in the Central Range stood out like a huge cake. Our nature lovers started out with much enthusiasm, some with inward calm, others with great velocity. After about an hour's walk I found myself alone and enjoyed the undisturbed serenity. I thanked my God for being alive and thought how precious and beautiful life is. I was jolted back to reality by the noises of the birds especially the cock-of-the-woods and the rustling of the leaves under my feet. The magnificent trees, the foliage, the variety of ferns, wild orchids, palms, etc., lent a beauty to the eye that was bewitching and wondrous to behold. After climbing for about four hours we stopped to see the tiny village of Brasso Seco tucked silently away down below. What a magnificent sight. We finally reached the top but not without much pain, determination and encouragement.

The trek downhill was easier and we all breathed sighs of relief when we arrived at our starting point. Even at the end of an adventurous trail the excitement continued. For the first time in my life I encountered an eight foot snake in its natural habitat and at close proximity. The tigre sat up in cobra-like fashion showing her yellow belly. She then climbed a tree with graceful, slithering movements. I was mesmerised for a while and then realized that darkness was slowly descending. It was with great reluctance we set out on our return journey to the city.



CYRTOPODIUM BROADWAYI REVISITED

By: V.C. Quesnel

Long-standing members of the club will remember that the Botany Group conducted a six-year study of *Cyrtopodium broadwayi* in the Aripo Savanna during the years 1978 to 1983. The study site was a little "bay" to the north of a large savanna and it was chosen partly for the reason that it seemed less likely to suffer from fires than the rest of the savanna. For the whole period of the study there was no fire. Paul Comeau and I revisited this site on 18 July 1995 and found that it had not escaped the devastating fires of 1995. (We do not know if it escaped the equally severe fires of 1987.) The area has been changed somewhat by the fires; the margin is no longer as sharp as it was. The grass and sedge vegetation has regenerated fairly well and the dicot shrubs have begun to grow again. I looked for *Cyrtopodium* and found four plants growing, two on each side of the central drain. On one side to the east, a bleached and misshapen piece of plastic lay half buried in the soil and this, I have no doubt, is the remains of the label we put on one of the *Cyrtopodium* approximately 17 years ago. Perhaps, at a later date, the Botany Group should do another survey of the area to see how many plants we can find now and how many we can match up with those recorded on our maps. To my surprise and delight, much of the large savanna had remained untouched by the fire, including three large vegetation islands in the middle.

IN MEMORIAM

Gerald Durrell 1925-1995

Gerry Durrell used to earn his living as an animal collector on contract to zoos to supply exotic wild animals. He ended up as one of the most published authors in the English language, selling tens of millions of books in numerous languages.

From his time in Corfu, immortalized in *My Family and Other Animals*, to his collecting days in Africa and South America, to establishing his zoo in Jersey, and to the time when his single-minded initiative went broke and he had to mortgage books he hadn't yet written to National Westminster for a loan, he gave his all. From 1980, our collaboration took off: the UKC-validated Diploma in Endangered Species Management, the self-funding R&D programme in Provence, the Jersey Scientific Advisory group, postgraduate research projects, international workshops, the Madagascar tortoise project. In 1989 I called my new institute after him. Conscious of what it costs someone personally to build something like an institute or a zoo, always skeptical of academics and pretensions, he helped and gave time to our endeavours, for which this university recognized him on November 24, 1989, with a DSc. Later that summer, we hosted and launched the First World Congress of Herpetology at UKC, The Herpetological Conservation Trust, DICE, and the international journal *Biodiversity and Conservation.* We will dedicate the next theme issue on captive breeding to him.

There is one thing over all else that makes him one of the greatest conservationists that ever lived. On meeting he was exactly as one imagined him: warm, intelligent, loyal and full of fun. A university colleague writes "... in a busy series of engagements he still found time to chat ... something not many would have bothered to do." He did more for animals and the people who cared about them than any person alive. He lived a life without which the world would have been a poorer place and without whom our job is that bit more difficult.

(*By Ian R Swingland, Founder, The Durrell Institute*)

DRAFT - *FOR YOUR COMMENTS*

MISSION STATEMENT

To create a trained human resource base to work towards the conservation of the natural history of Trinidad and Tobago by the education and training of members and the general public and by collaborating with other relevant organizations.

GOALS

1. To educate and train members and the wider public to facilitate field research on the natural history of Trinidad and Tobago and the threats to it.
2. To document and publish information on natural history and the threats to it in Trinidad and Tobago for the purpose of education.
3. To co-ordinate information and cooperate with other organizations by the dissemination of information gathered and collaboration on projects involving natural history research and conservation.

ADMINISTRATIVE STRUCTURE

1. **Special Interest Groups Committee** comprised of co-ordinators that train groups and organize research by these groups.
2. **Publications Committee**
3. **Conservation In Action Committee.**

TRINIDAD & TOBAGO FIELD NATURALISTS' CLUB
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