



# THE FIELD NATURALIST

BULLETIN OF THE TRINIDAD & TOBAGO FIELD NATURALISTS' CLUB

23rd March, 1976

Dear Member,

You are invited to attend the monthly meeting of the Club to be held in the Audio-Visual Room of St. Mary's College on Thursday April 8, 1976 at 5:30 p.m.

## A G E N D A

- (1) Reading and confirmation of Minutes
- (2) Business arising out of the Minutes
- (3) LECTURE - Ecology of Buccoo Reef by *Prof. Julian Kenny*
- (4) Exhibits and Miscellaneous Notes
- (5) Other Business

## F I E L D E X C U R S I O N

On Sunday April 25 the Club will be visiting the Austin-Coromandel Swamp in southern Trinidad. We will be leaving St. Mary's College no later than 7:00 a.m. with a short stop being made at the San Fernando By Pass at 8:00 a.m.

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## THE TRIP TO MOUNT CATHERINE ON 25th JANUARY 1976 by V.C. Quesnel

Whether because of site or season I do not know, but this was one of the most rewarding of recent field trips. Frankie Farrell and I set off with the rest of the party but soon fell behind as our collecting diverted us from the climb. In our more leisurely progress we may well have seen more of the wild life than those who raced to the top. We were soon struck by the many species of Convolvulaceae that were in bloom. Those we had identified later were Ipomea tiliacea (pale purple), Merremia glabra (white), M. aegyptia (very hairy), M. cissoides and Jacquemontia pentantha (small and pale blue). Other plants in flower were Lantana camara, the milkweed, Asclepias curassavica, and cypre, Cordia alliodora. These three were all being visited by humming birds of which we saw the common emerald, the white breasted emerald, the ruby topaz and the tufted coquette. A ruby topaz was nesting in a genip tree near the trail and we watched the bird for several minutes. Many other birds were seen including the bay-headed tanager, the white flanked ant-wren and two unidentified hawks. Early in the trip there was no sign of the zandolie but later in the day as the temperature rose zandolies were numerous at least up to the 1300 feet level. We also saw another lizard which is common enough but yet rarely seen, the skink, Mabuya mabouya. This one was a pregnant female. (Skinks bear live young.) On the way back but still relatively near the top we were extremely fortunate to see the rusty-tipped page (Metamorpha epaphus), a butterfly that is, according to Barcant, one of the great rarities of Trinidad having been recorded only four times previously.

In collecting a prickly-leaved plant both Frankie and myself were unlucky enough to be stabbed by the prickles. There was an immediate stinging sensation followed by itchiness. Frankie's injuries had disappeared by the following day. Swelling and itchiness persisted in me for weeks and even six weeks later a swelling was still visible at the base of my left thumb. The plant, on identification, turned out to be Jatropha urens, a member of the Euphorbiaceae and well known to be poisonous. But in spite of this minor mishap it was a good trip.

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## VISIT BY WHITE IBIS

On Monday 9th March, 1976 a group of bird watchers including Messrs. John Dick, Gus Yaki, Winston Nanan and Ian Lambie saw a white Ibis among a flock of red birds in the Caroni Swamp. White Ibis are rare visitors to this area.

SUCCESSFUL INCUBATION OF LEATHERBACK TURTLE EGGS AT HOME by David Rooks

On the morning of 24th June, 1975 while tagging Leatherback Turtles on the Grand Tacarib beach, I removed a clutch of about ninety freshly laid eggs from a nest which I considered to be threatened by the tides. Of these, twenty four were placed in a polyethylene bag and the remainder were buried in a pit which was dug higher up on the beach.

On the return trip to Port of Spain, I stopped at Yarra Beach, Blanchisseuse and collected a quantity of sand. Some of this was placed in a styrotex container to a depth of about 3 inches and the twenty four eggs placed on the surface. The box was filled with the remainder of sand and this styrotex incubator taken home.

During the entire period of incubation the sand was examined daily and if too dry a small quantity of water was sprinkled on it, enough to keep it moist. The cover of the incubator was kept on for the first fifty five days after which it was taken off.

After sixty five days, Monday 25th August, the maximum expected period for incubation and no apparent sign of hatching, the sand on top the eggs was carefully removed. On examination the eggs appeared to be in perfect condition. The sand was replaced and the cover was left off the container. At this time we were at Balandra Bay on vacation. The incubator was then put aside and left undisturbed until Thursday 11th September - 82 days from start of incubation.

On this day the eggs were examined once more. The eggs at the very bottom of the incubator appeared to have suffered the effects of excessive moisture, were definitely spoilt and had a fungus growth on the shells. Ten eggs above this bottom layer, however, appeared full and firm and looked to be in good condition. There was a dark area showing through part of the skin. Because of the long time past the maximum incubation period as stated by the experts (65 days), I was unsure of whether these eggs were really good or not.

I therefore decided to open one and see what was happening. I got a very sharp kitchen knife and carefully cut the skin of the egg away from the dark area. To my surprise and delight I found inside a fully developed, alive and kicking baby turtle with an enormous yolk sack attached to its open belly plate and almost enveloping the little turtle. I cleaned out the styrotex incubator in the sea and put in fresh Balandra sand, replaced the good eggs in the sand as before and put the baby turtle, still in its egg shell, in a firm position on top of the sand in the container.

By Saturday (84 days) this hatchling was crawling strongly around inside the container. Its yolk sack had been absorbed into its belly and the belly plate opening was almost closed. On this morning another had hatched and was also crawling around strongly inside the incubator. By Sunday morning (85 days) - 14th September, 1975, two more turtles had hatched, one was strong and the same average size as the first two - approximately one ounce in weight. The other was small and weak and weighed half ounce.

This day at sundown, we took the first two hatchlings down to the beach and placed them first in the stream to check their swimming strength. They swam strong and sure but after about ten minutes, showed a definite desire to get out of the fresh water. We then put them on the beach. They milled around for about two minutes at the top of the beach then headed down to the sea. The surf was moderately heavy (waves from 1-2 metres). They swam towards the open sea strongly but were washed back up on the beach at least three to four times until they were able to get past the breaking surf. They then swam outwards and disappeared.

Of the other two I released the strong one on Monday evening. The procedure and results were the same as the first two. The last hatchling remained weak. I kept this one until Wednesday afternoon when it appeared a bit stronger. I was not sure how long I could keep it away from the water without totally endangering its life. I carried it to Macqueripe Bay at 5:30 p.m. The sea was calm like a lake. I put the turtle on the beach, not too far from the water's edge. It hesitated a lot and after about 15 minutes finally got into the water. It immediately started to swim. First it swam for about twenty metres parallel with the beach, then it turned and started out to sea swimming just below the surface and taking frequent breaths. The sea was clear and I could still see until it was about fifty metres from the shore.

Before releasing any of these four I examined the belly plate. In each case the yolk sack opening was about 90-95% closed. I understand from Dr. Jim Wood, however, that at this stage there is still enough yolk inside there for them to be able to survive for another week or two until they have learnt to forage for themselves.

During the course of this experiment I had sought advice on the procedure of incubation from Dr. Jim Wood, Director of Research at Mariculture, Grand Cayman, who responded promptly and was a great help. Unfortunately I had at that time already committed a serious and fatal (to the hatchlings) error, in that I had not perforated the styrotex container to allow for drainage and air circulation and this was the cause of the eggs at the bottom spoiling.

In 1976 we will have better hatchling results. I have kept the spoilt eggs in the deep freeze for laboratory examination.

#### PLYWOOD MOTHER REARS BABY BABOONS - Submitted by Marianne Kummerloew

Indifference marked the expression of a baboon mother as she turned in disgust from the child she had just brought into the world. Under normal conditions, this baby baboon would have died. But a psychologist studying the social life of the baboons at Cologne zoo, Werner Kaumanns, adopted it and constructed a substitute mother for it in his flat. The mothering apparatus worked so well that three baby baboons which were rejected by their natural mothers have since been reared to healthy adulthood.

Two sisters, Lorri and Tinchen, have already been successfully integrated into a thirty-strong horde in the zoo. Their behaviour is in no way different from that of baboons raised in the normal way by their natural mothers. Another rejected baby, Fritz, is due to join his fellow baboons in the near future.

The object which dispensed vital sensations of security to these three baboons in the first months of their life consists of plywood and bits and pieces of plastic. It bore no resemblance to a baboon at all but it was able to supply all the motherly functions such as keeping the infant warm, feeding and protecting it.

The babies were placed in a plastic cradle equipped with fitted nappies. Scraps of synthetic fur simulated the texture of the mother's body for them to cling to. An electrical hot water bottle provided warmth. The cradle stood in a wooden box and the babies could look out or upwards through nylon netting. A milk bottle was attached to a vice.

A two week old baboon baby is able to distinguish faces. From then on the baby was not fed by hand but had to find its own way to the vice which held the milk bottle. Werner Kaumanns carefully avoided the possibility of the baby baboon becoming too attached to humans. When strangers came into the room the young baboon took fright, ran to his substitute mother and pressed its stomach and chest for a few seconds to her plywood body - just like any normal young ape running to its mother's lap. This brief contact with the dummy which he sees as his protector inspired him with sufficient courage to go and look back at the object of his former fear. The psychologist sees this as the most important feature of artificial rearing. The dummy mother was always instantly available and never once let her children down. She was the most reliable mother they could hope to have.

#### REPORT ON THE TRIP TO THE OROPOUCHE CAVE ON 7th MARCH by Victor Quesnel

The party of 18 set off from the junction of the Cumaca and Platanal roads at about 9:30 a.m. and arrived at Brothers Estate at about 10:30 a.m. The walk from the overseer's house to the cave took another 20 minutes. On the way there Julius Boos spotted a 6-foot Boa constrictor lazily coiled on a dead tree stump. It became the centre of attraction for some minutes. At the mouth of the cave the party assembled and the objectives of the trip were outlined, viz. to do a rough survey of the cave and to estimate the number of oilbirds. Both objectives were fully met.

By measurement with a steel tape the cave is 734 feet long. This measurement is probably not very accurate because of the difficult conditions under which it was made. It differs from another measurement by 136 feet. This second measurement was taken by unreeling, as we went, a 500-yard spool of thread, bursting the thread at the end and measuring the remainder later. By this measure the cave is 870 feet long. Compass bearings were taken at several stations on the way and measurements or estimates of width and height. On the basis of these measurements I have drawn the map shown herein. It does not pretend to great accuracy but it does show clearly enough that the cave runs underground in a southward direction at first and then turns south\*west. There is one large chamber which starts about 50 feet inside and runs for about 255 feet with smaller chambers deeper inside.

The birds occupy only the first chamber. Two independent counts gave 254 and 247 nests, very good agreement considering the difficult conditions. There are probably more nests than are visible from the floor so that counting two adults per nest there may well be 500-600 adult birds in the cave.

## ARTICLES

Contributions for the Quarterly Bulletin should be sent to either one of the following persons:-

Mr. Victor Quesnel, 1 Palm Avenue East, Petit Valley, Diego Martin or  
c/o Cocoa Research Unit, University of the West Indies

Mr. Ian Lambie, 64 Roberts Street, Woodbrook

Miss Annie Chang, 100 Saddle Road, Maraval or c/o Amoco Trinidad Oil Company,  
P.O. Box 714, Port of Spain

Members are encouraged to submit reports of field trips as not everyone sees the same things.

## ANNUAL SUBSCRIPTIONS

All subscriptions should be paid by the end of March 1976. Members are reminded to pay their subs as failure to do so will result in removal from our mailing list effective April 30, 1976. Hon. Treasurer, John Correia - 25 Baden Powell St

## SPECIAL OFFER TO MEMBERS

"Birds of the Caribbean" by Robert Porter Allen for only \$7.50  
This beautiful book containing 256 pages including more than 100  
colour plate in full colour, should be in the library of every member.  
This book is sold at U.S. \$15.00 so that \$7.50 is a steal.  
Will be available from the Hon. Treasurer at the Monthly Meeting.

## FOUND

One water-bottle on the Mt. Catherine Trip. Owner may recover from the  
Honorary Secretary at Monthly Meeting.

Yours sincerely,



Ian Lambie

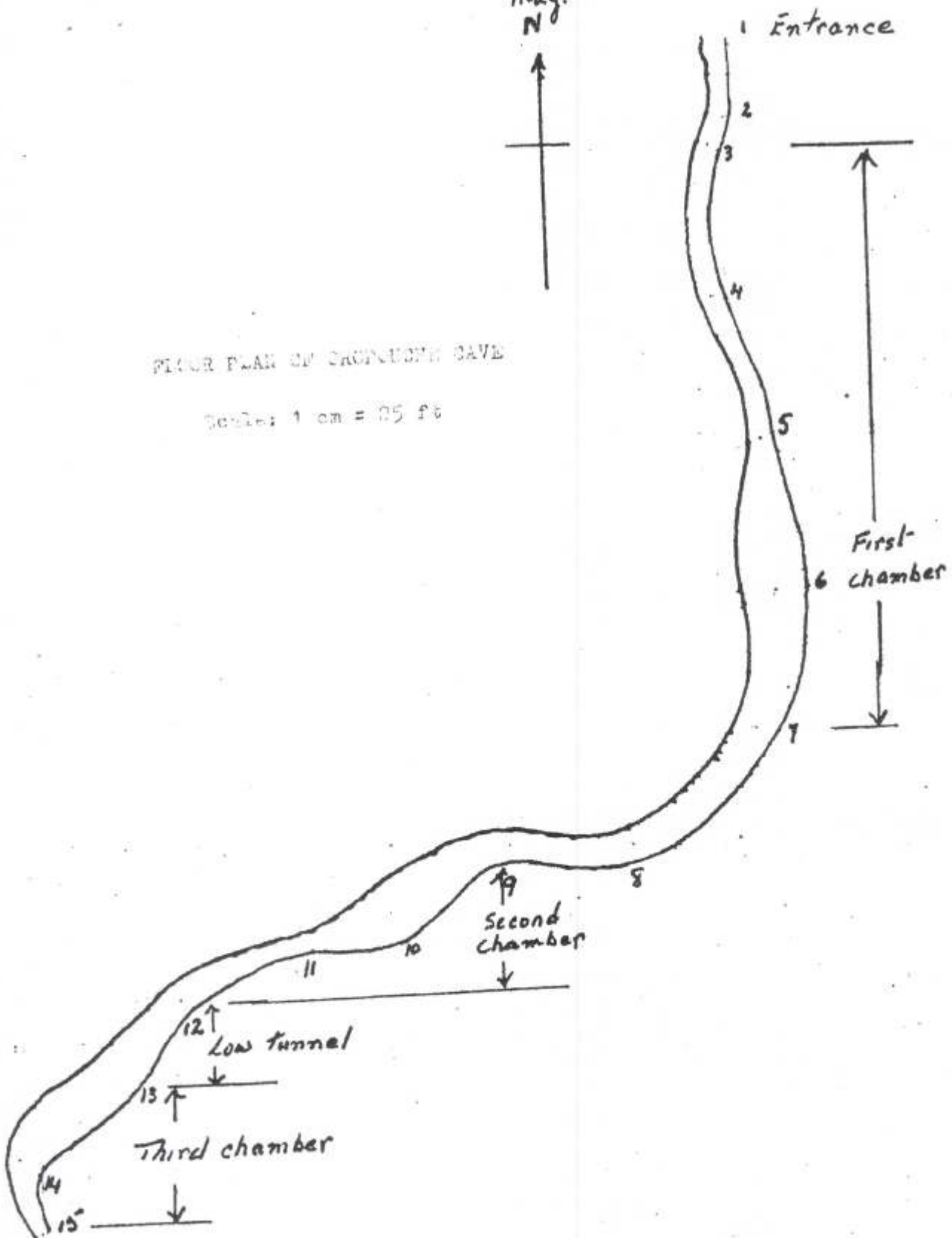
Honorary Secretary

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FLOOR PLAN OF CROUCHING CAVE

Scale: 1 cm = 25 ft



SECTION THROUGH CROUCHING CAVE

Scale: 1 inch = 100ft

