



Notes From the Field By Ross Ballard

In addition to the truly vast and varied number of wildlife sightings of Caño Palma Biological Station, the account which follows covers the more unusual observations of the last three months.

For the month of May, highlights included the return of the Great Green Macaws. Seen in pairs, or small flocks of 6 or 8 birds, the Green Macaws are normally in the Tortuguero area for only several months of the year, during the fruiting of their favourite tree, *Dipteryx panamensis*.

White-crowned Parrots, Ruffous-tailed Hummingbirds and Scarlet-rumped Caciques chose the station compound to nest and rear young this May.

A pair of Blue Dacnis, rare for this area, were seen in a citrus tree near the dining room.

Grey-necked Wood Rails gave us a loud and raucous display as 2 males vied for the attention of an apparently disinterested female, running after each other and squawking loudly in a contest that played out for three days. Chico, the station dog, was driven to distraction.

Several Purple-crowned Fairies (hummingbirds, people!), seldom seen here, were also spotted this May.

Huge numbers of black Scarab beetles (locally called June bugs) were present each night for about a month, from mid-May into June. About 3/4 of an inch long, they congregated around the station lights, finding their way into the dormitories and even the kitchen. Protein supplements, anyone?

Mosquitoes were also very plentiful throughout May, June and July. The older residents of Tortuguero tell me that they have never seen them in such large numbers. El Nino, 'course!

June saw the arrival of *Urania Fulgens*, a diurnal swallowtailed moth 3 inches across, black with iridescent green, orange and gold markings, which migrates annually through Central America toward South America. Large drifts (See page 3)

Poison Yields a New Painkiller

A deadly poison from the skin of a South American frog provided the decisive clue for a potent new painkiller that researchers say has all the benefits of morphine, but none of the damaging side effects.

Morphine is the main drug used for the treatment of intense, unrelenting pain. However, it can suppress breathing, so it often cannot be used in patients who have respiratory problems. It can also stop the digestive movement inside the intestines, which can lead to serious constipation. Morphine's effectiveness declines from chronic use, and it can become addictive. (See page 3)



(Not actual frog)

Recent Sightings at the Cano Palma Research Station (Continued)

of this beautiful moth continued into early July.

Black Witches, a resident 6 inch wide nocturnal moth, enjoyed a population explosion in late June and July. If disturbed, these dark brown and black moths burst from their daytime roosts flying like bats, erratically dodging and weaving as they flee.

A pair of rare Great Curassows were seen in the forest area near the dock. In breeding colours, they show spectacular orange, blue and green patterns as they struggle to secure breeding territories, grappling one another with their large fleshy lips.

The only terrestrial bromeliad I know of in this area was in flower this June. These large, narrow bladed plants, 10 feet tall, 15 feet wide, send up a 3 foot flowering spike from their centre. Atop the spike sits a vivid scarlet bract the size of a small cabbage in which are nestled brilliant yellow flowers perhaps an inch long. Spectacular in the dark understory of the rainforest.

A large number of unidentified (by us) species of frogs and toads were found at the station in June and July. Cano Palma needs a good field guide to the reptiles and amphibians of Costa Rica. Anyone out there able to help us with a donation?

In July, the station hosted 12 Texan biology students and their 2 professors. One of their nightly excursions into the forest (they were primarily interested in bats), had them return with a Mexican Mouse Opossum, an attractive little 'possum with a total length of about 16 inches, including the long prehensile tail.

The group netted bats during their 3 night stay and caught several Vampires. Normally found in fairly small populations, Vampire numbers can rise quickly in areas where forests are cut to make grazing possible for cattle and horses. Goats and pigs also serve to feed the bats. Ordinarily, large native mammals are in short supply in neotropical rainforest and so the Vampire population is in check. An apparent increase in their numbers may be indicative of the changing scene here in northeastern Costa Rica.

Of the birds nesting in the compound this July were a Crowned Woodnymph hummingbird (who named these things? Tchaichovsky?), and a White-collared Manakin, a house sparrow-sized bird, the males of which make sharp snapping sounds with their wings to try winning mates.

A pair of Laughing Falcons have taken up residency on station property just west of the compound. The pair call duets to each other which sometimes sound like hysterical laughter, hence their name. Snakes comprise a large part of their diet, and they have been seen carrying snakes in their talons.

A rather rare sighting of 9 Muscovy Ducks flying in V-formation was also made in early July.

On a final note, a sad observation. A recent walk on the beach near the station produced the remains of 3 female adult Green Sea Turtles which had been dragged into the scrub brush near the beach to be butchered in privacy. All 3 had the small round hole pierced into their carapaces which mark turtles poached by harpoon, from a boat. A rope attached to the harpoon head is then used to haul the animal onto the beach where she is usually beheaded and cut apart to strip her of her eggs and sometimes meat, depending on how much work the poachers are willing to do.

For 80 million years, tropical beaches (and not so tropical ones) have hosted nesting sea turtles in all their various forms. Now, for the last few hundred years, the inheritors of the same philosophic legacy which saved us all from the day to day annoyance of Passenger Pigeon splat, are busy again. The same legacy which, for that matter, has recently spared us from sitting down to yet another dinner featuring Grand Banks Atlantic Codfish. Let's hope they fail this time.

And so, for this edition, that's about it for Notes From The Field.

(Ross Ballard is the Station Co-ordinator at Cano Palma Biological Station near Tortuguero, C. R.)

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Donation Appreciated

COTERC would like to acknowledge and thank Dupont Canada for their donation of a slide projector, an audio viewer projector and a thirteen-inch colour monitor. This was acquired through In Kind Canada and will be beneficial to our organization.

Thank You Dupont Canada!

ABT-594 Has Better Results Than Morphine

Researchers at Abbott Laboratories, based in North Chicago, Illinois, U.S.A., developed the new drug, called ABT-594, more than a decade after John Daly, a scientist at the U.S. National Institutes of Health, isolated a poison from the skin of an Ecuadorian frog called *Epibpedobates tricolor*. He discovered that an extract from the frog's skin could block pain 200 times more effectively than morphine. He called the compound epibatidine in honor of the frog. Although epibatidine appeared to be a good painkiller in rats, it was too toxic for humans.

Abbott scientists screened 500 compounds of epibatidine before selecting ABT-594 for more testing. Its structure lacks the toxic elements of the frog compound, and tests on lab animals show that it displays none of morphine's various side effects. The drug will soon be tested on humans, and results should be known by July.

(Source: The Associated Press)

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 the frog's
 skin could
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A Recent Presentation at the Annual General Meeting

During our Annual General Meeting there was a presentation of original poetry by students of Sir Alexander Mackenzie Senior Public School, Scarborough, Ontario on the rainforest theme. Their poems came under the categories of simile, metaphor, alliteration and imagery. As well, their teacher Rob Langridge brought along some posters and fact cards researched by his classes during their unit on rainforest conservation. We thank Mr. Langridge and his students for this very special presentation. We were all impressed by the quality and samples will appear in this and other editions of Raphia newsletter.



Parrots

Parrots are like rainbows
multi- coloured and bright
Talk more than a hyper girl
with her best friends
Soar higher than an eagle
and more beautiful than an angel

By Marc Whang



Bad Bouncing Bob

Bad bouncing Bob boldly bounced beside Baboon's banana tree. Bravely, Baboon bellowed "Bad bouncing Bob, bananas belong to baboons." Then Baboon belted bad Bob with a big black bug. Bad Bob bounced back, blabbed bad things 'bout Baboon and boldly bounced by Baboon's banana tree. After, Bad Bob bounced by the beautiful bug building. Bad Bob bounced and bumped the beautiful bug building and broke it big time. Big black and blue bugs bombarded bad Bob. Bad Bob bounced away.

By Sarah C.

A Cry for Help


I see a copper sky, because of the flames below
I smell burning air, because of the thick clouds of smoke
I feel a fire of red, because it stings upon my head
I hear a cry of death that pierces my very soul and has brought tears to my eyes
I am nature, my world is dying.




By Jason P.



The Story of a Special Sloth

The swarthy sloth is sluggish but silent.
Its skin has several swarms of insects in it.
In search of supper, it slowly stumbles off a tree.
The shaggy safari sloth is no where in sight.
But startling as it may seem, there stands the sloth in sunlight.
Its skin may seem smooth, soft and shiny, but seriously,
its surrounded in swarms of lice.
The sloth sleeps silently, slacks off and still surprisingly survives.
Save this special species in the rainforest.









By Joanna L.



COTERC is having a raffle draw!
 Path of the Panther, by renowned
 wildlife artist Robert Bateman, is
 a signed, limited edition print to
 be praised by any Robert Bateman
 lover. Tickets are going really fast
 for this great addition to any
 collection so get your tickets now!
 Call (905) 683-2116, fax (905)
 683-5897, or e-mail us at:
 coterc@interhop.net


**A student from Sir
 Alexander Mackenzie Sr.
 Public School reciting
 her poem**

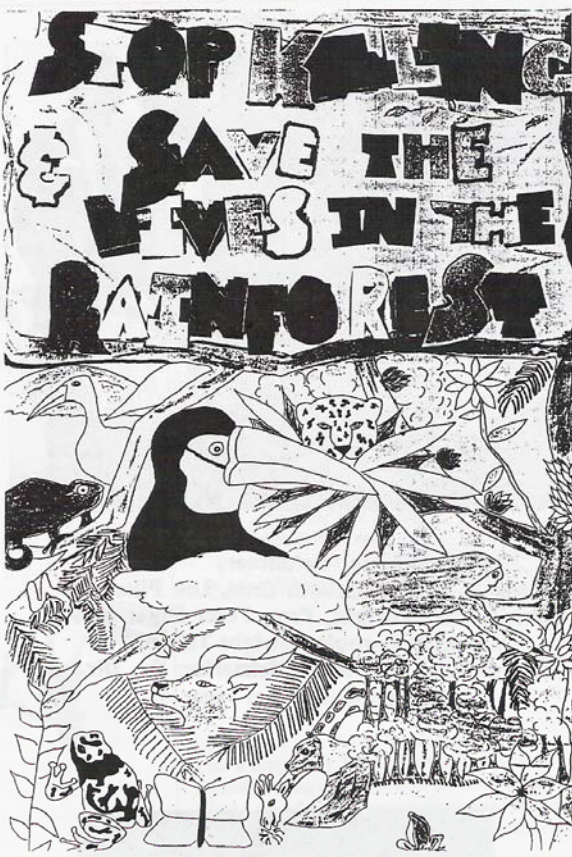


**President Peter Silverman presenting
 a certificate of appreciation to
 membership secretary Ian Morrison**

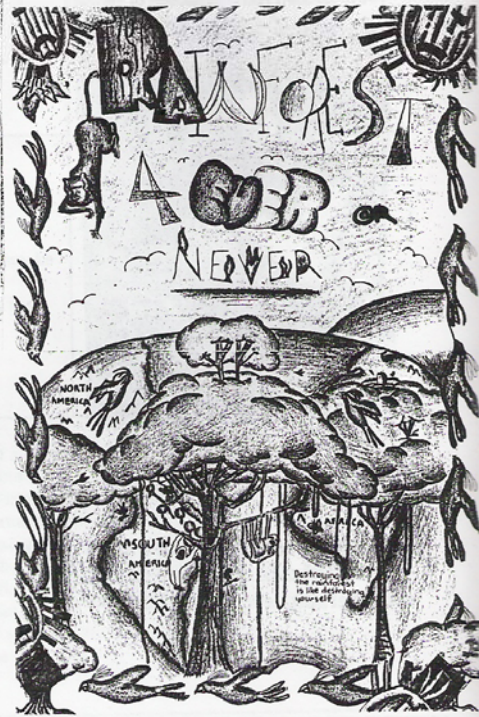


Above: Volunteers
**Top row, L to R: Elizabeth Cruz, Lou Pike, Gail
 Harrod, June Enright, Pres. Peter Silverman,
 Anthony Garbuio, Dwight Throop**
**Bottom row, L to R: Liz Schaeffer, Ex. Dir.
 Marilyn Cole, Tom Sagar**





Here are four of the posters presented at the Annual General Meeting



Hey all you barbecue lovers! COTERC will be hosting a barbecue at the SuperCentre on Kingston Road and Liverpool Road in Pickering, Ontario on September 12, 1998 and then at Loblaws, corner of Harwood and Kingston Road in Pickering, Ontario on September 19, 1998. We need volunteers to help with cooking, collecting money and cleaning up. If you can spare a couple of hours (or just want to try a hot dog or two) please contact Marilyn Cole at (905) 683-2116, or coterc@interhop.net

Just a reminder to all you Tropical Treat fans that it's happening again! This time on Saturday, September 26 at The Atrium, Toronto Zoo. There'll be dancing, two auctions (one silent and one live), and dinner. If you haven't got your tickets already, they're \$37.50 each available now from Malcolm Enright at (905) 837-1118 or Marilyn Cole at (905) 683-2116 or via e-mail coterc@interhop.net. Hurry! Get your tickets now!

