

RAPHIA IS THE QUARTERLY NEWSLETTER FOR THE CANADIAN ORGANIZATION FOR TROPICAL EDUCATION AND RAINFOREST CONSERVATION

# ELESTAVE RDE

**OCTOBER 24 2009** 





Caño Palma Biological Station Barra Colorado Wildlife Refuge Tortuguero, Costa Rica

# FIESTA VERDE -PROJECT SEA TURTLES

# Did you know?

- Five of the seven species of sea turtles are designated as Endangered or Critically Endangered on the IUCN Red List of Threatened Species
- Leatherback populations in the Pacific Ocean have declined by more than 80 percent, and the species has entirely disappeared from some areas
- All sea turtles are protected by territorial law, prohibiting the harvesting of eggs and adults, but poaching persists



How can you help to save the sea turtles?

Although becoming a rare occurrence, Hawksbills have been sighted on the beach at Cano Palma and Leatherbacks nest on our shores yearly. COTERC has established regular beach patrols as a measure to reduce poaching. Other conservation measures are in place and we have partnered with various agencies in the pursuit of saving the sea turtles.

Help COTERC to continue its work by purchasing a ticket to our annual fundraiser **Fiesta Verde**. Tickets are still only \$75 and include

A tasty catered dinner Silent Auction Live Auction Music

FUN! FUN! FUN! FUN! FUN!

Fiesta Verde 2009 takes place on October 24 in the Atrium at the Toronto Zoo.

# **HOPE TO SEE YOU THERE!**

Tickets are available from any of the Board of Directors and from the COTERC office (905) 831-8809 info@coterc.org



We're looking for all kinds of items for the silent and live auctions. Do you have something that you would like to donate? Do you have a hobby or craft? Do you own a business and can donate a gift certificate? How about an antique? Tax receipts available.

Please contact info@coterc.org or 905 831-8809

# NOTES FROM THE CHAIR

COTERC has definitely had an eventful summer. We have attended functions, developed plans for the station and had a major change in our staff. For this episode, I will concentrate on the last point. In May of this year, Jonathan Willans left the employment of COTERC as manager of the Caño Palma Biological Station and moved on to follow a career in sea turtle research and conservation. Jonathan had been with us for 2 years and will be missed. In August of this year, a new manager, Michael Dunn came through Toronto on his way to the station. He has already contacted us as to how much he loves the area and we know how much work he needs to catch up on. He brings a new perspective and much experience to the position. We hope his stay is pleasant and productive.

In between the two managers we must thank Charlotte (sorry we don't have her last name). Charlotte spent several months at the Station and then decided to move into San Francisco. She has been involved with COTERC through the Nesting Bird Study sponsored by Dr. Steve Furino and her presence has enabled us to have a smooth transition in managers. She has our sincerest thanks.

Another special thanks has to go out to Josh Feltham. Josh and his family all moved down to the Station in September of last year. They were soon immersed in the work at the station and helped in everything from sea turtle walking to working on the showers and creating web pages. Although they had to return early for personal reasons, Josh returned to the Station and filled in a month of the time between managers. Thank you Josh, Karen, Liam and James for all you did for us.

Jonathan Willans first arrived at the Station wishes to visit the station. in March of 2007. He was quiet but observant and soon started showing us what could be done. He had just come from the fund raiser at Bill Jamieson's studios and he was loaded with advice from the Board and a long "to do" list from Greg. He appeared completely overwhelmed with the job he was undertaking. I was lucky enough to be at the station with a group when Jonathan arrived. His first days were spent walking around, assessing problems and planning. Before I left he was already starting to work on his list. He got the composting toilets built and running, fixed water problems and worked with GVI on turtle monitoring. Later he initiated and ran the large mammal monitoring program under COTERC Director Dr. Kym Snarr. Jonathan continued to work and in his stay much was repaired and even more work was completed. The latest accomplishments were the completion of the new showers and the new water relay system that has increased the water pressure to the wash area.

On top of maintaining the property, Jonathan had time to improve his Spanish, but his greatest achievement and love was his work with the sea turtles. During sea turtle season, Jonathan regularly walked the beach. Ten kilometers were walked every time he went out. This was on soft, loose sand that increases the effort required to cover the distance. If not walking with GVI people, he was covering the times that volunteers were not available. Sometimes he walked twice a day. He was dedicated to providing the best data for the programs underway at the Station. After two years, Jonathan has taken on a position working on sea turtles in Nicaragua. We wish him all the best in his venture and future plans. He is certainly welcome back any time he

So now Michael has arrived. He also has a list to do. Michael comes to us with a lot of experience from around the world. He has his B.Sc. and has spent time in South Africa, Ecuador and recently returned from India. Michael has traveled with GVI twice, so is well aware of their policies and protocols. When one is hosting 20 people for most the year, it is important to know what you are dealing with. Michael spent a few days in Toronto and region on his way from Grand Prairie, Alberta. It was great to hear that he is a reptile and amphibian enthusiast. He spent a long time in South Africa learning how to handle Black mambas and puff adders. It will be a good specialty for the Cano Palma area. His first job will be to repair the composting toilets that Jonathan set up. In two months, they have seized up, so Michael has one smelly job to start with.

In September Michael will be joined by two of COTERC's Board of Directors, Dr. Kym Snarr and Greg Mayne. We should have an idea of how he is doing. Hopefully this will be followed by other members visiting soon.

Finally, I hope to see everyone at the annual fund raiser, Fiesta Verde. It will be held on October 24th this year and we need your support to help us into our 19<sup>th</sup> year. 2010 will be a very busy year. Our Memorandum Of Understanding with GVI comes to an end and we have been approached on several occasions by other groups wanting to use our facilities. There is a lot to accomplish in the coming year and I know that we can't do it without your support so we are very grateful of our many friends.

# **COTERC WISH LIST**

- \* Binoculars and Spotting Scope
- \* Biology and Ecology Technical books
- \* Butterfly nets and mist nets
- \* Night vision binoculars and scope

- \* Portable Gasoline Generator
- \* Power Tools
- \* Digital Movie Camera
- \* Dissecting microscopes
- \* HP Ink cartridges #'s 27, 28, 56, 57
- \* Motion Sensitive Cameras

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August 20, 2009

# ANDES & UPPER AMAZON EXPEDITION NOV.09/21, 2010

Depart Toronto in the early afternoon for the Air Canada flight to Bogota which connects to Avianca and arrives in Quito, Ecuador in the late evening. Quito has an altitude of 9,250 ft. and a moderate climate year round. Transfer to the Hotel Sebastian, located in the Mariscal sector, a 15 minute drive from the airport. The hotel has complimentary 24 hour tea and coffee in the main lobby, free internet and wireless connections, emergency medical services, and the dining room features organic produce. All rooms have

Morning departure by bus 45 miles due east of Quito to the Papallacta paramo life zone, in the upper Andean highlands. Your climb to the continental divide takes you to over 13,000 feet above sea level from where a view of snow capped Mt.Antisana is possible. This volcano crupted in the late 19<sup>th</sup> century and its lava flow blocked the passage of the water on the Papallacta River, thus creating the Papallacta Lagoon. Check into the Termas Papallacta Lodge and remainder of the morning free to soak your bones in the thermal pools. The water is crystal clear with no sulphur smell. After a hearty lunch, hike into the seldom seen exuberant forests of the paramo with profuse bird and plant life which includes the typical cushion plants and stipa grasses. Return to the lodge to relax or enjoy the optional spa treatments. Evening lecture, followed by dinner (BLD).

Morning rafting adventure on the Quijos River with opportunities to admire the subtropical vegetation found on the eastern side of the Andes where all rivers eventually empty into the Atlantic after a 4000 mile journey. Nuevo Mundo Expeditions, the operators of your touring program in Ecuador, will provide all equipment as well as a thorough briefing on the techniques employed for enjoying this adventure regardless: of whether you are a pro or novice. Those that do not want to raft can stay at the lodge. After lunch return to Quito and the Hotel Sebastian in the late afternoon. The local guide can assist with dinner reservations at any of the nearby restaurants. (BL)

Store extra bags, not needed during the Amazon expedition with the bell captain at the hotel. You are allowed 30 lbs, of checked baggage plus a small back pack. It is best to have a waterproof duffel and to pack all belongings in heavy garbage and ziplock bags. Morning transfer to the Quito airport for the 30 minute flight to Francisco de Orellana (Coca). Cost of the flight and entrance fees to the National Parks are included. Upon arrival in Coca you will note a huge change in altitude and temperature. Average temperature in the rainforest is 26/30 C and although the heavy rainy season is from April to August you can expect some rain, daily. I suggest you wear light weight cotton pants, long sleeve shirt, a waterproof jacket, firmly anchored hat, and bandana. Have your binoculars, sunglasses, sunscreen, lip balm in your

Transfer by bus to the edge of the Napo River to board motorized canoes for the ride downstream. During the ride, a box lunch is served and your naturalist guide will inform you about the region and program. Board the Manatee Amazon Explorer and navigate down the Napo River the rest of the afternoon. After dinner, a night walk or canoe ride depending on the river level.

The Manatee Amazon Explorer is a 90 ft. three deck riverboat with accommodations for 30 passengers in air conditioned double cabins each with private bathroom with shower. A crew of 12 will cater to your

# YASUNI NATIONAL PARK/ARCHEAOLOGICAL MUSEUM/QUITO

The Manatee arrives back to the point you started your expedition. Early morning visit to the most accessible parrot and parakeet clay licks in the Yasuni National Park. There are blinds to watch and enjoy this nature show at close range. Imagine hundreds, sometimes thousands of parrots and parakeets coming together at once into the clay licks. Early afternoon visit to the local Archeaological Museum that preserves pottery from the Omagua Culture, one of the first pre-Columbian forest dwellers of the Napo River basin. After the visit continue to the town of Coca to take the flight back to Quito. Transfer to the Hotel Sebastian and remainder of the afternoon at leisure. Tonight we have a special farewell dinner. (BD)

# NOV 20 SATURDAY

Departure transfer to the Quito airport for the flight to Bogota and Toronto which arrives in Toronto on

# NOV.21, SUNDAY

# END OF SERVICES

RATE	USD 2,600.00 PER PERSON PLUS CA 1115.37 AIRFARE FROM TORONTO

RATE CHANGES Nuevo Mundo has quoted the rate valid for 2010. The rate for the airfare

is based on today's fare and is subject to change for 2010.

PAYMENT A non refundable deposit of USD 500. is due when you reserve. Insurance is recommended and must be paid when you reserve your voyage. Airfare deposits

will be advised in Jan.2010. Balance of payment is due Aug.01, 2010.

Ecuadorian departure tax USD 40.80 ( subject to change) **EXTRAS** 

Soft drinks and alcoholic beverages

Gratuities for Andean guide and crew on Manatee (app. 125. suggested)

2 lunches + 1 dinner in Quito

Check out the following on Google WEB SITES

> Nuevo Mundo expeditions, Quito Hotel Sebastian, Quito Manatee Amazon Explorer Termas Panallacta

needs. Electricity is the same as in Canada. Bottled water, boots and rain ponchos are provided free of charge, and soft drinks and alcoholic beverages are available at the bar. There is a small gift shop and laundry service is also available. Extras must be paid in cash, USD (no credit cards) The Manatee Amazon Explorer will be home base, with excursions done by motorized canoes. At this time no vaccinations are required to visit this area. (BLD)

NOV.13, SATURDAY

YASUNI NATIONAL PARK

Today you explore one of the fantastic tributaries of the Napo River that comes from the core of the Yasuni National Park, one of the world's Biosphere Reserves. From this river you navigate upstream in search of the evasive giant river otter, the mysterious jaguar and the timid spider monkey. Return to the Manatee Amazon Explorer and continue navigating to the international border with Peru. At night there will be an excursion into the Yasuni National Park to look for large rodents like capybaras and caimans ( South American alligators). Those who wish to do so, can camp overnight to enjoy the evening jungle sounds.

# PERUVIAN BORDER & CUYABENO WILDLIFE RES

Morning excursion to observe plants, birds and more wildlife in the Yasuni National Park. The Manatee will then navigate into the Aguarico River, the largest tributary of the Napo River, to penetrate the Cuyabeno Wildlife Reserve, one of the highlights of your voyage. On your way to Cuyabeno you visit a Peruvian town and meet its local people. (BLD)

## CUYABENO WILDLIFE RESERVE/ THE FOREST DWELLERS

A full day visit to the Indian community will give you an idea how indigenous people live in the rainforest. At the community, a local native guide accompanied by the Manatee naturalists will enlighten you in the use of plants for medicinal use and other purposes. After a walk, you will stop at a local home, where these true forest dwellers will explain their way of life and traditions. You will also have the opportunity to buy local handicrafts. There will be lots of traditional food and hospitality (BLD).

## CUYABENO WILDLIFE RESERVE/LAGARTOCOCHA

This remote area is accessible only through the Lagarto( Alligator)River, a black water aquatic system surrounded by freshwater mangroves and palm trees adapted to flooding conditions. Lagartococha (Alligator Lake) is not one but a system of many lakes situated along the Ecuadorian-Peruvian border. This black water system is home to the legendary pink river dolphins, river turtles, black caimans, and the enigmatic Amazon manatee. Moreover, if you look at the vegetation on the shores, you may well see the red howler monkey, the three toed sloth, and the leaf eating bird known as stinky turkey (hoatzin). An overnight in the forest can be arranged for tonight or you may prefer to return to the Manatee. (BLD)

# NAVIGATION & EXPLORATION A

From this day you will start your return to the point where you boarded the Manatee Amazon Explorer the first time. There will be navigation throughout the entire day to relax and observe the Napo River banks, the forest and perhaps some wildlife. Late in the afternoon, you will explore the Napo River banks and tropical river islands in quest of birds like the ornamented umbrella bird, the colourful blue-gray tanager, kingbirds, and social flycatchers. (BLD)

# NOV.18, THURSDAY

# NAPO RIVER NAVIGATION/ PAÑACOCHA PROTECTED FOREST

Continue your navigation upstream to arrive at the mouth of the Pañayacu (Piranha River) for a canoe trip up this aquatic system to enjoy the sights of this remote protected forest. There is a chance to observe pink river dolphin, and the agile common squirrel monkey. The Piranha Lake area, in contrast to Lagartococha, is an ecosystem flooded by white waters. The rivers and lakes found here are the perfect habitat for the infamous piranha, the water monkey fish and white caimans. At night there will be an optional expedition to



# CHECKLIST TO THE MAMMALS OF CAÑO PALMA BIO-LOGICAL STATION AND SURROUNDING AREA

Dr. Kymberley A Snarr, Director of Conservation and Research

The number of mammals recorded at the station is approximately 37 species and this does not include the checklist of bats which can be found on the COTERC website. When we add in the noted bats (Order: Chiroptera) to this mammal list, we have basically double the species documented. Further research will certainly add further species to the bat checklist. Monitoring the presence and absence of various mammal species over time for the purpose of conservation and education is a mandate of the Caño Palma Biological Station. The mammal species list represents the cumulative efforts of the preliminary large mammal monitoring program, researchers, station managers, staff, volunteers, and groups visiting and working at the Caño Palma Biological Station since the early 1990s. Many of these large mammals range through the station and are also found in the adjacent forests. While most of the species were observed on the station property, others were found during day trips on adjacent properties or in other lowland areas within Limon Province.

This current list continues to grow with the opportunity to add new species as the large mammal monitoring program moves beyond its preliminary phase and further species are noted. Photographs of the various species may be available on the COTERC website: <a href="http://coterc.org/photos.html">http://coterc.org/photos.html</a>.

# Current and Historical View of Research at Caño Palma Biological Station

Dr. Kymberley A Snarr, Director of Conservation and Research

During the past near two decades of its existence, Caño Palma Biological Station has been attracting a wide variety of researchers from across the globe. Beginning with our founder, Marilyn Cole and her Masters thesis from York University, many elements of the lowland wet forest has been examined. Many of these reports are available to the general public and we share data with a number of agencies to help inform conservation management decisions in the area. Much of the research reports can be found linked on our website, see: <a href="http://coterc.org/resources.html">http://coterc.org/resources.html</a> In reviewing historical material and contacting previous researchers, a number of academic documents have been located and some of the full articles will be added to the resources. A list of these publications is included below.

A recent addition to the COTERC website includes a closer look at the growing data from the large mammal monitoring program which has been running for two year now. Partnered with The Southern Alberta Institute of Technology, a three student team lead by their professor, Colin Lynch, began the task of mapping and developed an interactive site for the public and researcher's to examine current data. Their results can be found at: <a href="http://coterc.org/mammals.html">http://coterc.org/mammals.html</a> and click on [visit the projects website to learn more]. Partnered with the National Institute of Biodiversity (InBio), satellite images were supplied to help form the basis of a digitized topography map and the beginnings of classifying ecosystems which exist at and around the station. By building basic GIS data layers, monitoring changes and impacts to the area by employing spatial and temporal analysis can be done more readily.

Volunteers are needed to help continue collecting data in all of our projects, and our office in Canada also is seeking volunteers to help with research. Have a look at our website for our continuing programs and contact us to learn more. Research Articles based on data collected at Caño Palma Biological Station and the surrounding area:

Fenton MB, J Rydell, MJ Vonhof, J Eklof, WC Lancaster (1999) Constant-frequency and frequency –modulated components in the echolocation calls of three species of small bats (*Emballonuridae*, *Thyropteridae*, and *Vespertilionidae*). *Canadian Journal of Zoology*. 77(12):1891-1900

Vonhof, MJ (2001) Habitat availability, population size, and the composition, stability, and genetic structure of social groups of Spix's disk-winged bat, *Thryoptera tricolor* PhD Dissertation. Supervisor, MB Fenton, York University, Toronto, Canada

Riskin DK and MB Fenton (2001) Sticking Ability in Spix's disk-winged bat, *Thyroptera tricolour* (Microchiroptera: *Thyropteridae*). Canadian Journal of Zoology. 79:2261-2267

Vonhof, MJ, CS Davis, C Strobeck, and MB Fenton (2001) Characterization of microsatellite loci in Spix's disk-winged bats (*Thyroptera tricolour*). *Molecular Ecology Notes*. 1:73-75

# ONE VOLUNTEER'S EXPERIENCE

# By Rinsai Rossetti

This is a follow-up piece after the end of Rinsai's 3 months of research during the summer of 2009 where she carried out an examination of group size and composition of howler monkeys to help supplement the large mammal monitoring program.

The canal is my favourite place in Cano Palma. I learned how to kayak while I was here, because I love the freedom of pulling out one of the kayaks and going off down the canal, north or south, in the afternoon, just for pleasure. Because the water is dark, the place has an atmosphere of mystery about it. Sometimes you feel that you may as well be on Mars. It's a great place to think. But then a motor-boat will go past, and there will be a round of friendly smiles and 'hola's" and the spell is broken. I think that the canal is literally the most beautiful place in the world. Going on trips to Tortuguero are great not just for the use of internet (which you really come to appreciate after a few weeks here!) and food from the bakery, but also for the breeze and the sights sweeping past, especially in the morning when fog covers the Cerro and makes it look like something out of the prehistoric age. I lived half my life in the desert, where the color green is a rarity, so I'm feasting on

it while I am here.



The research was intimidating at first—it seemed as though everyone else could spot animals in the trees, but it took me ages to see past the camouflage to what had caught their attention. But, to my delight, I picked it up: how to scan *through* the leaves rather than staring at them, and how to pick up the tell-tale rus-

tling that denotes monkeys. It was something that could only be learned through practice. I was looking for howl-

ers. I don't think they liked being watched. Often it seemed that they only came out when my back was turned. I've had branches hurled at me (they were pretty good shots) but at least it wasn't feces, so I count myself lucky! The spider monkeys, on the other hand, seemed to rather like me—on more than one occasion they followed me around as I went past in my kayak. Or maybe I was imagining it?



# COTERC EDUCATION MANUAL NOW AVAILABLE IN FRENCH

We can now offer our Volunteer Information Package in French, thanks to the translation services of volunteer Ellie Dufresne

. It will soon be added to our website.

Thanks very much, Ellie!



Photo courtesy of Jim Taylor

# Current and Historical View of Research at Caño Palma Biological Station Continued from Page 5

Pape, T, D Dechmann, and MJ Vonhof (2002) A new species of *Sarcofahrtiopsis* Hall (Diptera: Sarcophagidae) living in roosts of Spix's disk-winged bat *Thyroptera tricolor* Spix (Chiroptera) in Costa Rica. *Journal of Natural History*. 36:991-998

Vonhof MJ, H Whitehead, and MB Fenton (2004) Analysis of Spix's disk-winged bat associated patterns and roosting home ranges reveal a novel social structure among bats. *Animal Behaviour*. 68(1):507-521

MJ Vonhof and MB Fenton (2004) Roost availability and population size of *Thyroptera tricolour*, a leaf roosting bat, in north-eastern Costa Rica. *Journal of Tropical Ecology*. 20:291-305

Dechmann D, K Safi, and MJ Vonhof (2006) Matching morphology and diet in the disc-winged bat *Thyroptera tricolor* (Chiroptera). *Journal of Mammology*. 87(5)1013-1019

COTERC is a registered Canadian charity whose mission is to provide leadership in education, research, conservation, and the educated use of natural resources in the tropics.

With your support you become a member of an incredible family of:

- Educators who teach environmental awareness to local children in Costa Rica.
- Conservationists who protect rainforest habitats and the species they support.
- Volunteers who collect data and perform general maintenance and support duties at the biological station in Costa Rica.
- Researchers who increase knowledge of rainforest plants and their uses; who study the biodiversity of insects; who monitor sea turtle nesting; and who study and monitor resident bird and mammal species.

Become a member today! Welcome to our family.

Membership Rates Student—\$20 Senior—\$25 Individual—\$30 Family—\$40

Classroom—\$50 Current Projects

We invite you to join COTERC and become part of active conservation. As a member, you receive our RAPHIA newsletter four times per year and are entitled to a discounted stay at our Caño Palma Biological Station. See for yourself what your money is doing!

# Why Should I Join?

Your support ensures the continuity of research, conservation and education currently in progress in Costa Rica and Canada. Just as the summer tanager travels between Costa Rica and Canada, your financial support will be used to further programs and connections in both countries.

Membership Category and Rate: Your Name: Address: City, Province: Postal Code: Phone: Email:
Send Raphia Newsletter by:  □ Email □ Postal Service (in Canada only)
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We do not share your information with other organizations.

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If you are interested in receiving Raphia electronically, please forward your name and email address to info@coterc.org or contact the COTERC office at

905-831-8809.

You will need Adobe Reader to open the document. To download Adobe Reader, go to http://www.adobe.com/products/acrobat/readstep2.html

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