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Editor's Notes

In this issue, we will be featuring, among other news items, biographies of many of the current Board of Directors. We hope that this will give you an insight into the many talented people who sit on the Board and volunteer their time for the betterment of COTERC and Cano Palma Biological Station.

Most have actually visited the station, and thus have been inspired to help.

I would also like to personally invite you to our annual fundraising dinner known as Tropical Treat. If you haven't been before, you will truly enjoy yourselves!

Fundraising Partnership with Veseys

Included in your newsletter this issue you will find three enclosures to assist us in our fundraising partnerships with Veseys.

We are asking our members to use this material to light up your gardening friends' day while assisting us in our conservation work. 50% of all sales will go to COTERC to assist us in our work at the biological research station in Costa Rica. Please note that all cheques collected must be made out to COTERC!

Your flower bulbs will be shipped mid-august in time for fall planting.

Should you have any questions, please don't hesitate to contact the office at 905-831-8809 or via the web at info@coterc.org.

We appreciate all efforts by our members and volunteers in meeting our mission.



Be sure to get your bulbs!

Your Board of Directors

Chair	Marilyn Cole	Site Services	Bryan Bridgeman (on leave)
Vice Chair	Andrew Cresswell	Interim Site Services	Tom Mason
Executive Director	June Enright	Conservation	William Rapley
Marketing	Janet Vatcher	Research	Robert Murphy
Membership	Helen Huggett	Finance	Barry McKee
Education	Josh Feltham	Interim Raphia Editor	Marilyn Cole
		Membership Secretary	Hilary Lee

Volunteers in Action

Without volunteers like Julie and Lloyd to help June run the weekly bingo, COTERC would be without sufficient funds to run the Canadian operations of the charity. Sessions are held weekly every Wednesday at Ajax Bingo Country on Monarch Avenue in Ajax, Ontario starting at 11:30 a.m. until 3:00 p.m. Come and join us sometime! Funds raised finance all the administrative and educational work here in Canada. Both Julie and Lloyd are bingo aficionados both in front and behind the counter. Our warmest thanks for their hard work!!



June Enright Julie Wilson Lloyd Flake

Janet Vatcher, Director of Marketing

I was born in Nova Scotia, raised in Montreal and presently reside in Brampton with my family.

After raising my two sons, I joined the work force nine years ago as a Consumer Response Representative managing consumer calls for major name brand food product marketing departments. I left the work-force this past January and am now enjoying a more leisurely

lifestyle at home. I keep myself occupied with many different hobbies and crafts and spend as much time as possible at my cottage up north.

I have been a member of Scouts Canada for the past 17 years, working with several sections as a leader. Through the years I have been involved in the training and development of other Adult Volunteers and worked on various committees for major

events.

I enjoy the outdoors through camping and, hiking. My hobbies include porcelain doll making, watercolours, and doll-house miniatures.

My favourite pastime is to spend time with my menagerie of reptiles; E-Zee the iguana, Phantom the snake, Sebastian the Basilisk, and Camelot the chameleon!

Report from Membership

We have now tidied up our membership list and gained several new members since the last report.

The new brochures with membership applications enclosed have been distributed to

various new locations in the hopes of gaining new members. Prospective members may now enroll through our website.

We are also experimenting with an ad placed in the widely

distributed magazine of the Federation of Ontario Naturalists, and anticipate that more members will be attracted from this source.

"Prospective members may now enroll through our website"

Tom Mason, Interim Director of Site Services

Tom has served in several capacities on COTERC's Board of Directors over the years and is currently Interim Director of Site Services. He leads an annual trip to Tortuguero and Cano Palma, to check the site and do surveys of fish and reptiles in the area. Tom received a B.Sc.

from the University of Guelph in 1977 and has worked in zoos since 1973, and at Toronto Zoo since 1980. He became a curator in 1986 and is currently Curator of Invertebrates and Birds. He is a founding member of the Ontario Herpetological Society, member of

the Durham Region Aquarium Society, Toronto Entomologists' Association, the Entomological Society of Ontario & the Entomological Society of Canada, the Parrot Association of Canada, Avicultural Advancement Council of Canada, Association of



Zoos and Aquaria, and Canadian Association of Zoos & Aquaria.

Joshua V. Feltham, Director of Education

From the time I could crawl I have been fascinated with animals. Unfortunately, being born in Reykjavik, Iceland, limited my exposure to wildlife until my family moved back to Canada in 1979. That fall, my father introduced me to a garter snake and I've been focused on reptiles and amphibians ever since.

I attended the University of Toronto in 1991 and completed a B.Sc. majoring in Zoology and Environmental Science.

In 1997, I was accepted as a Master's student at the University of Guelph and studied the evolution of a unique lineage of virtually all female salamanders found throughout much of northeastern North America. However, in the spring of 1998, I took a position as the General Manager of Reptilia Inc. in Vaughan, Ontario. I have been working at Reptilia ever since and have developed curriculum based lessons that use reptiles and amphibians as tools to

stimulate children to learn and understand science. I also teach a Zoology course for students enrolled in the Animal Care program at Sheridan College.

As with many of COTERC's volunteers, I was introduced to the organization when I visited Cano Palma in the fall of 1999. My wife and I had just married and decided that a mud covered, rain soaked, week in the rainforest would be a fantastic honeymoon! Tom

Mason was our guide and he encouraged me to become involved with COTERC.

My focus has been the development of curriculum based educational materials for students and teachers. My primary goal in life is to introduce others to the wonder of nature and cultivate a respect and admiration for all forms of life.

COTERC Gains a Partner!!

Canadian Organization for Tropical Education and Rainforest Conservation is proud to announce that they have reached an agreement with Global Visions International of the United Kingdom.

As both organizations are dedicated to the conservation of our environment and the dissemination of information about the rainforest, the partnership is a good match. COTERC is providing Cano Palma Biological Station as a base to work from, along with resources and potential projects, while GVI provides expertise, manpower and financial resources to further both groups' mandates.

Nick Beale, a past manager of Cano Palma Biological Station, now working with GVI, made contact with our board of directors in January. Discussions and ideas were exchanged over the spring and summer. Both parties now agree that only benefits can come from such a partnership.

Global Vision International plan on having people at the station for 40 weeks per year. Staff and volunteers will conduct biological surveys, upgrade trails, work on local conservation and environmental efforts and teach at the local high school.

Staff at Cano Palma will provide the housing and accommodations for GVI staff and volunteers, aid in securing the appropriate permits and forms, help liaise with government officials and provide projects and ideas for GVI staff to work on. The station is about to become very busy!

Helen Huggett, Director of Membership

I was born and lived in Toronto until the age of 9. After a couple of moves, I arrived in Highland Creek and to this day, am still here. I have always explored the outdoors and brought home "wild things" to observe. After graduating from West Hill Collegiate, I worked in a legal office, then at R.H. King Collegiate as head secretary to the principal. I was married and widowed at an early age and have two daughters and two grandsons.

Traveling is something I love to do, and have walked on the Galapagos Islands, been to the forests of Ecuador, sloshed through the rainforest of Costa Rica at Cano Palma, explored Bermuda, Jamaica and Cuba, cruised the Caribbean islands, visited many caves in the southern U.S.A. and Puerto Rico, studied bats in the steamy forests of Belize, camped on the savannahs of Kenya and Tanzania, spent two weeks in Brazil floating down the Rio Negro and on into the dense jungles....and with luck, I haven't finished yet.

I taught keyboarding on computers and American Sign Language at night school for many years, and enjoy writing. For 24 years and still going strong, I have produced animal fact sheets entitled "Our Zoo" for my local community monthly newsletter, and have also been a volunteer at the Toronto Zoo for 24 years, as well as at the Rouge Valley Foundation for the past 5 years.

I enjoy giving slide presentations for the Toronto Zoo and have my own presentations about bats ("Bat Bits") and the importance of wetlands, reptiles and amphibians ("Meet the Marsh-ians").

I operate a small travel consulting business "Twiga Trails Inc." through which I lead naturalist safaris in Kenya and Tanzania. In my "spare" time I have undertaken to study bats in Ontario with Dr. Brock Fenton, in Kenya with Dr. Peter Taylor from S.A., and in Belize with Dr. Fiona Reid.

In looking ahead, I plan to visit Hawaii to check out Kilauea, the active volcano and the tropical rainforests nearby.

Marilyn Cole, Chair

Like many people I have had several careers, but the one that was the most fulfilling and enduring was my 22-year tenure as a keeper at the Toronto Zoo, 10 of which were spent with the gorillas. During that time I completed a B.Sc. at U. of Toronto and a Masters in Environmental Studies at York U. on a part-time basis.

Having done field work in Indonesia (orangutans) and Gibraltar (Barbary macaques), I jumped at the opportunity to participate in a leatherback sea turtle project in Tortuguero, Costa Rica in 1990. The area was so pristine, and

filled me with awe. When the opportunity arose to purchase the land now known as Cano Palma Biological Station, it was just too good to pass up. Hence, COTERC was born and the station developed from there.

I am very proud to have been the co-founder of an active conservation organization that has endured now for 13 years. The future looks bright with our new partnership with GVI, and I look

forward to continued growth in our efforts to preserve the rainforest, one of the precious areas of our planet.



News of an Old Friend

Those of you who have been members for some years will remember Greg Mayne, our very first Station Manager. Greg was greatly responsible for keeping the station going back in the days before electricity and such modern conveniences as running water, computers, electric stoves and refrigerators.

Greg recently gave us an update on his life and we wanted to share it with you. He has been living in Hamilton, Ontario for some years now where he renovated a house that he shares with Tracy, whom he met at Cano Palma.

Tracy and Greg were married in April, 2004 on the beach in the Yucatan Peninsula — very fitting considering their adventurous spirit, Tracy has recently started a post-doctoral fellowship.

Greg graduated from the University of Guelph with a degree in toxicology and is currently doing contract work with Canadian Wildlife Service, most recently monitoring contaminant burdens in peregrine falcons nesting in Hamilton, Toronto and Ottawa and along the north shore of Lake Superior. In his email, he said the following: "The scenery was brilliant, the adult peregrines never failed to put on a spectacular show with their aggressive displays, and the hiking was enough to put me back in shape after sitting at the computer over the winter. Our work with the snapping turtle monitoring program resumed again this year, and it was nice to get out in a canoe, enjoy some wetlands and blood sample and collect eggs for contaminant analysis. I'm still writing manuscripts for publication. One of our most recent research projects is focused on a persistent compound and its effect on mink. We use ranch mink as a surrogate for the feral population and have found some interesting results."

Greg and Tracy will be at Tropical Treat, so stop by their table and say hello.



June Enright, Executive Director

Born in Sudbury Ontario my initial bout with conservation was the establishment of a Pollution Probe office in the city. My first full time position was as a counsellor for Drug Addiction Research running a drop in centre, youth hostel and drug crisis centre. Once my contract was finished I came to Toronto for a weekend and decided to stay. I eventually moved into the finance arena of the business world handling International Telecommunications for Burns Fry, Nesbitt Burns and finally for BMO. During this time I was able to chair the Telecommunications Committee at the Toronto Stock Exchange and also sit on the advisory committee of Ryerson University assisting them in the establishment of a Telecommunications program.

Throughout this time my husband and I operated and owned two different zoos specializing in reptiles and amphibians. We obtained our Class A Zookeepers certificate. Although I was the best in class at sexing ducks, it is a skill I have yet to use outside of class! Our work allowed us to work on the captive propagation of endangered species. It was rewarding work.

Since retiring, I have been continuing my education

and have completed a Telecommunications Management certificate program at Ryerson University and have begun a second certificate focusing on the volunteer sector.

Working with COTERC was an easy decision for me. Having been a member for a number of years, as well as my husband Blue having served on the Board of Directors and currently working on the sub-committee for the station I am well aware of the charity and its great work.

I have had the pleasure of visiting the station on two separate occasions. There is no way to describe the thrill of being wakened up every morning to the sound of the Howler Monkey at the first light of day. The wildlife and fauna are abundant but I will leave descriptions of the trips for another article.

I believe that my business background will be an asset to COTERC as I work to assist the board in achieving their goals.

Although I was the best in class at sexing ducks, it is a skill I have yet to use outside of class!"

Travels to Tortuguero

Recently I came across this website and wanted to share it with our readers.

Those of us who have been to Tortuguero will read it with fondness and those of you who have not yet had this pleasure, will marvel at the photographs.

Laurie Minor-Penland is a photographer for the Smithsonian's Office of Printing & Photographic Services. In late August 1993, she was assigned to photograph the green sea turtles as they nested. She describes her adventures, first in travelling by small plane to the

village of Tortuguero and then her subsequent stay at the Caribbean Conservation Corporation and journeys onto the adjacent beach and waterways. The photographs of wildlife and the area are wonderful, and reading her text brought back such great memories, particularly her encounters with spiders.

I recommend that you check out the web site

<http://photo2.si.edu/turtles/travel.html>

Marilyn Cole



Argiope
bruennichi

Possible Sea Turtle Protection Program for 2005?

Caño Palma Biological Station has been very busy this summer with many projects and many visitors. One of the most important being a pilot project put together by York University (Toronto, Ontario) and the station staff. It is an attempt to protect the sea turtles frequenting a 3.5-mile stretch of beach north of the river mouth in Tortuguero, Costa Rica. Tortuguero is a small town located in the north of the Caribbean coast of Costa Rica. The town has grown dramatically in the last 20 years due to tourism. One of the main attractions to this National Park and Wildlife refuge is the giant Green Sea Turtle.

During the months of July through November these wonderful creatures come to the beaches of Tortuguero to nest. Thanks to the Caribbean Conservation Corporation and the town, the beach south of the river-mouth has a protection program. During this period, tourists from around the world flock to experience a "Turtle Tour" - a tour hosted by a local guide to see the female green turtles lay their eggs.

Sea turtles also nest north of the mouth of the Laguna Tortuguero. In recognizing that beach-patrolling activities were scarce for this area, York and Caño Palma Biological Station decided to initiate a protection program. York sent a recipient of an internship study named Adriana Laborde to Tortuguero. Upon her arrival in May, she began the quest to find support from locals, neighboring hotels, tourists and the National Park system of Costa Rica in order to implement beach-monitoring in the coming year.

As the turtle season first began on Tortuguero beaches this past June, the beach was marked to allow the accurate location of nests and turtle tracks. With the help of 24 youths from the United States, tree trunks were painted and buried in the sand as markers. Adriana, Station staff and Station volunteers began to walk the beach night or day in search of turtle nests and tracks. Locals also gave us information regarding the sites of a few nests, as well as where turtles had recently emerged from the sea. Some staff from local hotels also came along on the censuses to ensure safety of the walkers. The station currently continues the program, and volunteers and staff persist in walking the beach.

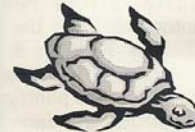
Lots has been going on since the pilot project began. The Station, with the help of Adriana, has hosted classes for the local school children of San Francisco. Through the children we hope to educate moderation and the importance of conserving the species. We have also started a petition with the tourists and locals that have come to the station, by which means to prove the strong support of the program here in Tortuguero, in hopes of gaining backing from people world-wide. The petition that began near the end of July now has over 400 signatures and counting!!! Finally, the National Park visits the "north beach" once a week with some guards to patrol and stop poaching.

If you want to assist the station in its efforts to cut down the killing of the sea turtles and the poaching of the nests, or want further information regarding projects and happenings at the station, you can contact us at the following email address: canopalm@racsa.co.cr

The station would like to thank the following persons for their efforts in making this project possible:

Adriana Laborde for all her hard work!
Etalo Bravo for teaching us all there is to know about the turtles
Manuel for walking the beach nightly and acting as our bodyguard
Coast to Coast Adventures (CR) & The Road Less Traveled (U.S.) for sending us such wonderful volunteers
Amber Foreman & Natalie Jamie for staying so long at the station just for the project

by Jana Daigle



CRITTERS OF CANO PALMA

Red-Eyed Tree Frog (*Agalychnis callidryas*)



Photo courtesy of Nashville Zoo

The Red-eyed tree frog, as an adult, is brightly coloured all over. The body is predominantly neon green and usually splashed with blue or yellow. The upper legs are usually bright blue; the feet orange or red. The red-eyed tree frog can change its colour with its mood from a darker green to a reddish-brown and has suction cup toe pads. Males are smaller than females, males usually reaching 2 inches, while females are usually 3 inches in length.

Red-eyed tree frogs inhabit parts of South America, most of Central America and as far north as Southern Mexico. These frogs live in a neotropical environment and prefer lowland rainforest areas close to rivers and adjacent hills, and can be seen at Cano Palma Biological Station.

These frogs are carnivores and feed primarily at night on crickets, moths, flies, grasshoppers and sometimes smaller frogs. They will eat any insect or food item that they

can fit into their mouths.

Reproduction usually takes place during the rainy season (October to March). Courtship is initiated by croaking and quivering. Males attach themselves to the back of females when the female's eggs are mature. The male fertilizes the eggs as they emerge from the female, usually 30-50 pale eggs. Reproduction takes place on the underside of leaves. The female must hold on with her suction cup toes. As each clutch emerges from the female, she must enter the water and fill her bladder with water. If she does not, the next clutch of eggs to emerge will dry up and die.

This particular tree frog lays eggs on the underside of leaves that hang over a body of water. The egg clutches develop into tadpoles quickly, and the tadpoles swim around in their egg cases until they burst open. This rupturing of all the eggs occurs within a one-minute time frame. The fluid that is released with the tadpoles helps to wash them down the leaf and into the water. Tadpoles metamorphose

into tree frogs after 75-80 days. It is unknown how long they live in the wild.

Red-eyed tree frogs have a very musical mating ritual. When one male starts croaking, the rest of the males in the area chime in as well. This "song" is to attract the females. Males croak as they jump from leaf to leaf to establish a territory. They inflate their vocal sacs and rise on all fours to deter males and to attract females.

The most noticeable part of the red-eyed tree frog is, of course, its red eyes. This frog has evolved with these eyes for a very good reason — startle colouration! Since the tree frog sleeps during the day, the redness of their eyes is

"If something bothers them, they open up those bright red eyes, and it may scare their predators away"

covered and they blend in with their surroundings. But if something bothers them, they open up those bright red eyes, and it may scare their predator away.

Although these beautiful creatures are not considered threatened, the condition of their habitat is of great concern. Problems such as global warming, wetland drainage, atmospheric and climatic changes, pollution, deforestation have all taken a severe toll on the rainforest. With less rainforest comes fewer tree frogs.

by Helen Huggett

One of the greatest difficulties of conservation efforts is the long time that it takes to see results. People hope that if they write a cheque today then the next day a tree will be saved, a frog will breed and a forest will be protected. In some cases that is indeed what happens, but in many cases, the path of conservation is like a liana -- a long woody vine -- snaking through the forest at Cano Palma. I want to let you know some of the ways that your efforts are having a much broader impact than you may have imagined.

Born, raised and schooled in Canada, I completed my PhD at the University of Toronto in the early 1990's. My passion is the myriad ways that fishes take care of their kids -- fish parental care. I started my career studying the sunfishes ubiquitous to Ontario lakes, but eventually I got the opportunity to fulfil a lifelong dream, to study the cichlid fishes of Costa Rica in the wild for a few weeks. Wet tropical rainforests strike people in one of two ways. Some people hate the wetness, the bugs, the dirt. Other people, myself included, find it the most amazing place on earth. It surrounds you, it flows through you and it becomes a part of your soul that you can never forget. I was hooked.

After my Ph.D., I moved to Berkeley, California, to do a Postdoctoral fellowship, in the lab of Dr. George Barlow, one of the most eminent scientists in the field of fish behaviour. The general plan is that one does a PostDoc for a couple of years and then obtains an academic position at a university. Sadly, the mid-90s was a very difficult time for most universities and few were hiring. Although I continued my work in George's lab, I yearned to get back to the tropics. Tropical biology is very expensive to do. Travel is expensive, equipment is expensive and the tropical environment has a way of destroying man-made things at a ferocious pace. I did manage to go a couple of times to Costa Rica to sustain my tropical research but things were not looking good as far as my being able to continue.

Then things took a turn for the better. I was invited by Tom Mason and his gang of fellow tropical enthusiasts to go with them on a trip to Cano Palma, to explore the cichlid fishes living in the canal. Not only did they pay for me to do this -- and to be honest, I had absolutely no money at the time -- they did something far more important. They showed me that people were genuinely interested in what I was doing. This is perhaps the most difficult thing to explain to people unfamiliar with the realities of academia. Academia is not at the best of times a means to get rich, but that is fine because people don't go into it with that in mind. However, there are times in the careers of many academics when they face the choice: do I continue, or do I do something else?

This is where organizations like COTERC can have far more impact than you could ever imagine. Tropical biology (and biology is general) is done by people with an incredible passion for nature. But sadly, it is often the mundane reality of a boat motor that doesn't work, the need for a net, or an airfare that is out of reach that keeps much field biology from being done. While medical science operates on budgets of millions, to many tropical biologists, a thousand dollars, a good pair of binoculars or even just knowing that people really do support the effort is the price of discovery.

So what did you get in my case? Well, like the liana, the path of an academic is never straight-forward. It doesn't always go where you think, and it grows very slowly. In 2001 I finally obtained a job -- as an Assistant Professor in the Dept. of Biological Sciences, at California State University, Sacramento. A good part of why I got my job was because of my ongoing investigations into tropical fishes that were sustained at a critical time by COTERC.

Now, I regularly teach courses in animal behaviour, fish biology and the biology of other vertebrates (snakes, lizards, birds and mammals). I always fill my courses with stories of the tropical rainforest to inspire yet more students to discover these magical places.

Continued on Page 12

COTERC Has A New Poster For Sale



Thanks to the generosity of Valerie Kent, COTERC is able to offer this beautiful full-colour poster of Valerie's work entitled "Sun Drenched Palms". Unfortunately, our newsletter is printed only in black and white, so you will not be able to fully appreciate the lovely colours.

However, if you visit Valerie's website, (www.valeriekent.com) you can see it there. We are offering this poster at an introductory price of \$10 plus shipping. They will be available at Tropical Treat, or you can use the order form below.

Order Form Title

Item #	Description	Qty.	Price	Subtotal

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Education - Research - Conservation



Because of You (continued)

I have built my lab to be an extremely active group of graduate and undergraduate students, focusing on issues of fishes and amphibians with a particular bent towards tropical systems. So, now your original investment into me has created a group of ten graduate, six undergraduate researchers and hundreds of inspired students. I now do research not only in Costa Rica, but also in Nicaragua, southern Mexico and Brazil—and the next stage of my work goes even further. I am actively attempting to recruit grad students from Latin America to study with me and then go back to their home countries to use that knowledge for better understanding and management of their biodiversity. Through them, you will have even greater and more direct impact on tropical systems. In addition I regularly give public lectures to groups of fish enthusiasts and to the general public. I run a large website visited by people from all over the world and my lab is always open to the public to see what we do. All told, thousands of people have seen my pictures of Costa Rica and heard tales of the tropical rainforest. So now, what started out as planting a single seed is growing into an ever expanding network of positive impact on tropical systems. I am extremely grateful to COTERC for having planted that seed, and I thought you might be interested to know what it is growing into.

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Cichlid Research Home Page <http://cichlidresearch.com>