
STRI news '98

Smithsonian Tropical Research Institute Weekly Newsletter

Panama, September 11, 1998

Bambi Seminar

Thursday, September 17, Bambi seminar speaker will be José Luis Andrade

Regulation of Water Flux Through Tropical Forest Trees

Transportation and dinner reservations are essential. Please call the BCI at 272-2124 or E-mail: Bambi

Charla de SIBUP

SIBUP invita a la comunidad de STRI a la charla del martes 15 de septiembre, por Nélida Gómez, STRI

Mediación Química Entre Tres Niveles Tróficos

auditorio Bernardo Lombardo (aula 111), Escuela de Biología, Universidad de Panama, 5:20 pm.



Ariadna Bethancourt, research assistant at the Biolead Novartis Farma project, measures leaves of Anacardium using the canopy crane at the Metropolitan Natural Park, as part of a study of endophyte fungi ••• Ariadna Bethancourt, asistente de investigación en el Proyecto Biolead Novartis Farma, mide hojas de Anacardium usando la grúa de acceso al dosel instalada en el Parque Metropolitano, como parte del estudio de hongos endófitos. (Foto: M.A. Guerra)

Arrivals

- Ernesto Brugnoli, short-term fellow, Universidad de Costa Rica, CIMAR, Aug 30 - Nov 30, to study the resident phytoplankton populations in Panama Bay, differences in size and surface: volume coefficients of the organisms during the dry and rainy seasons, with Luis D'Croz, at Naos.
- Todd Ciche, University of Wisconsin, Sep 1 - Oct 4, to do a survey of entomopathogenic nematodes and associated bacteria from diverse local environments in Panama, in Gamboa.
- Kristina Hufford, short-term fellow, University of Georgia, Sep 1-11, to continue studies on demographic genetics of *Platygodium elegans*: selection at three early life stages, with A. Herre, at BCI.
- Elisabeth Kalko, University of Tuebingen, Sep 2 - Oct 25, to continue studies on echolocation and foraging behavior of neotropical bats, at BCI.
- Katja Uebershaer, University of Wurzburg, Sep 1 - Nov 30, to study root size selection and social organization of d'Orbigny's round eared bat, *Tonatia silvicola*, on BCI.
- Jochem Zeil, Australian National University, Sep 3 - 11, to visit STRI and present a seminar, at Tupper.
- Nancy Knowlton, Sept 2-early Oct, for a field trip to Bocas del Toro, followed by travel to Brazil to participate as guest speaker in Rio 98 International Workshop on Marine Genetics.
- Don Levitan, Sep 6-15, for a field trip to Bocas del Toro with Nancy Knowlton.
- Christopher Pyke, Sep 10 - 23, to work on the Monitoring Project.
- Robert Stallard, US Geological Survey Colorado, Sep 3-28, to work on long-term monitoring biochemical cycles in watershed on BCI.
- Moritz Weinbeer, University of Tuebingen, Sep 7-17, to work with Elisabeth Kalko, on the echolocation and foraging behavior of neotropical bats, at BCI.
- Jayne Yack, Carleton University, Canada, Sep 14 - 24, to work with James Fullard from the University of Toronto, on the auditory systems in butterflies, at BCI.

- Rafael Ramos, Centro de Investigación y Desarrollo Agrícola de Puerto Rico, Sep 14-20, to visit the CTFS personnel.
- Coenraad Krijger, L. van Kan and B. van Konijnenbury, Linden University, The Netherlands, Sep 15 - Jan 20, 1999, to study the spatio-temporal heterogeneity and the composition of tropical *Drosophila* communities, in Gamboa.
- Robert Percy, University of California, Sep 16-22, to study the integration of canopy and hydraulic architecture in *Psychotria* species along light and moisture gradients, on BCI.
- Elizabeth Royte, Sep 16 - Nov 4, to continue research for a future book.

Departures

- Haris Lessios, Aug 30 to September 14, to Milan, Italy to attend the European Echinoderm Meetings.
- Oris Acevedo, Sep 1-20, to Bonn, Germany, to the German Academic Exchange Service Meeting of Alumni-Associations Presidents, then to Archibald, Florida to participate at the annual meetings of the Biological Field Stations.
- Marco Díaz and Argelis Ruiz, Sep 7-12, to Puerto Rico, to present the "Coral Reef Discovery Trunk" at the STRI Coral Exhibit in the University of Puerto Rico, Mayaguez and take down the exhibit.
- Ira Rubinoff, Sep 8 - 30 on vacation, then to Washington, D.C. on official business at SI until Oct 10.

From the Director

Effective 21 August 1997, Dr. Lisa Barnett will serve as Acting Director of Development for STRI. Her duties will also include responsibility for the coordination of those administrative activities routinely conducted through STRI's Development Office. Dr. Barnett received a Ph.D. in Botany from the University of Texas in 1986. She was employed as manager of science development at the N.Y Botanical Garden before joining STRI in 1992.

The Joan Mosenthal DeWind Award

The Xerces Society is accepting applications for two \$3,250 awards for Lepidoptera research /conservation projects to be carried out during 1999. Submission requirements: 2 pages to include 2-3 sentence summary, project description, conservation applications and potential results, product (if any). Attach a detailed budget, projected time-line and C.V. If you have published on your project or related topics, reprints may also be attached. We are soliciting proposals on general Lepidoptera conservation and on pollination-related research with one award designated for the latter. **Due date:** October 19, 1998. **E-mail or Regular mail:** DeWind Award, The Xerces Society, 4828 S. E. Hawthorne Blvd., Portland OR 97215 xerces@teleport.com

Oportunidad para Estudiante

El proyecto conjunto de ANAM-STRI de Manejo de Cativales y Productos No Maderables necesita contratar un estudiante en ciencias sociales para entrar data y posiblemente analizarla sobre artesanos en Darién de acuerdo al censo llevado a cabo en 1995 por la

Dirección General de Artesanía Nacional. Favor ponerse en contacto con Julia Velasquez Runk para mayores detalles, en La Palma, Darién, tel (y fax) 507.299-6373.

Available

Francisco J. Berguido, MS (1997) in Biological Sciences from Western Michigan University, BS in Biomedical Sciences and Health Chemistry, with ample computer skills. Member of The American Chemical Society. Experience as Teaching Assistant of Anatomy and Physiology and Senior Research Assistant at the Memorial Sloan Kettering Cancer Center in New York. Knowledgeable about DNA and molecular techniques. Fluent in Spanish and English; partial knowledge of Italian. E-mail in Panama until Sep18: fberguido@hotmail.com. Tel. 225-1113. After Sep 18: phone (212) 355-6637, e-mail: fberguido@ski.mskcc.org

Parking Permits Permiso para Estacionar

Due to new security measures, personnel at Tupper, Tivoli, the Library and Pastor's House, will be asked for a parking permit. Please ask

for your parking permit at the reception desk. Tivoli employees can pick up their permits at the Security Office in Tivoli. Permit must be visible to the security guard when approaching the entrance of the complex. If you do not have your parking permit, you will be asked to park at the general parking lot across the Library. Parking in the rotunda will no longer be allowed. We request everyone's cooperation in this matter. For more information please contact Fernando Caballero, Security Office, extension 2246 ••• *Debido a nuevas medidas de seguridad, los empleados que laboran en Tupper, Tivoli, Pastor's House y la biblioteca deberán tener un permiso para estacionarse. Favor retirar su permiso de estacionamiento en la recepción del Tupper. Los empleados del Tivoli pueden retirarlo en la Oficina de Seguridad en Tivoli. El permiso de estacionamiento debe estar visible para el guardia de seguridad al entrar al complejo. Aquellos que no lo tengan deberán estacionarse en el estacionamiento general al frente de la biblioteca. No se permitirá estacionarse en la rotonda de la entrada principal. Se solicita la cooperación de todos los empleados para esta nueva medida de seguridad.*

September Birthdays

Audrey Smith	1
Eldredge Bermingham	2
Alejandro Caballero	4
Ricardo Beteta	5
Jaime Sierra	5
Rubén Lopez	7
Virgilio Sánchez	9
Carlos Tejada	9
Nicolás Sugasti	10
Leoncio Rodríguez	12
Luis Turner	14
William Eberhard	15
Paul Colinvaux	22
José Herrera	27
Lastenio Guzmán	28
Mirna Fernández	30

Field Work at Maicuru, my Last Amazon Expedition

by Paul Colinvaux

Maicuru is an inselberg in Amazonia, a block of very hard rock that has been left standing when all the softer rocks around were weathered away by rain and river. We knew of it from satellite imagery. Our Lake Pata record (published in *Science* in 1996) from a lake on a similar inselberg was the first long pollen history of the Amazon forest. Maicuru has haunted my imagination for more than a decade as offering a chance to duplicate that record a thousand miles away at the other side of the Amazon basin. I have flaunted Maicuru in many grant proposals, but Maicuru is inaccessible, with no road or settlement closer than 200 km. So we used a helicopter, courtesy of funds supplied by the National Science Foundation.

The nearest settlement to Maicuru is the tiny village of Recreio. Our advanced party of STRI postdocs Paolo De Oliveira and Jason Curtis trucked in about 1000 gallons of aviation spirit in plastic drums and piled it on the village football field. The helicopter flew in from Belem a couple of hours after I arrived in the village, and refueled. For my one night in the village I put up my little tent on the football field as far as I could reasonably get from the village, for there was malaria in the village.

Next morning we clinched a deal with six men to come with us, loaded Paulo and 2 men into the helicopter,

and off it went. No one in the village had seen an helicopter before. The women and children hunched in circles singing prayers for the safe return of their menfolk, taken off in a magic chariot that had come down from the clouds.

To get us all to Maicuru, with our equipment and supplies, took five trips, 4 that day and one the day after. I went on the second trip and found that the helicopter put us down on the wrong side of the inselberg, where a rocky flat beside an almost dry lake provided the only open space they could find in which to land; the rest was forest. Our prime target lake was still 2.8 km away, as near as we could judge from a satellite image.

We were soon to learn that we had super men with us: by "super" I mean excellent humans as well as prime physical specimens. Never have I had better companions: cheerful, willing, wanting to help, knowing their native forest, and strong beyond belief. Their usual work was packing huge sacks of brazilnuts out of the forest. The first sign of their exceptional mettle was in their solution to being on the wrong side of the inselberg: three volunteered to be taken by the helicopter to our target lake, there to jump out as it hovered over the rocky beach. They would be left to cut a trail through the forest back to us at

the other side of the inselberg. The distance being only 2.8 km, and these being forest men, I gladly accepted their offer. So after the final delivery by the helicopter, the doors were removed to ease the jumping out process, and off went the three volunteers. Then the helicopter left us with a promise to come back in two weeks.

It was three days before the men dropped at the lake got back to us. They were three good forest men with three machetes, but they could only manage to penetrate one kilometer per day, so dense was the forest. When I went with them to the lake on the fourth day it took me 2 hours to walk the 3km trail, even after they had opened the way.

A principal reason for the hard going was "the root mat". On the hard rock of the inselberg there was very little soil, so the roots of the trees spread over the ground, stacked up on each other until the mat of substantial tree roots was a meter thick. It rained; and the roots were sopping wet. For much of the way you had to balance yourself on roots as your feet tried to slide into holes as deep as your leg. After one of my worst falls, one of the men cut me a walking stick with which I puttered about for the rest of the two week stay.

Those wonderful countrymen then volunteered to move the entire camp across the inselberg to our chosen lake: drilling equipment, rubber-boats, tents, food and fuel for nine men for two weeks etc. Drilling equipment came first. Paulo, Jason and I set up as the men went back and forth with their heavy loads over

the next 2-3 days. Coring is my main skill and the drilling equipment is of my design. The work went splendidly, and we got long cores. I now know that we got back to more than 30,000 radiocarbon years, meaning well into the last ice age. Triumph.

The men from the village that had never seen a helicopter then cleared trees to make a helipad, beside the lake in a thinner bit of the forest. They were working on it for the best part of a week, by which time it was perfect. This was my first expedition when we built our own airfield, though on one of my Galapagos expeditions I had run an airline: by selling seats on the 4-engined transport (a Douglas DC-6) that I had chartered.

The 12-hour nights I passed in my tiny tent in the forest, with a great, 2m dbh tree towering over me. When there was moon I could see the shadows of ants running over my tent, and tried to learn to tell by their motions whether they were outside or inside. There were rainstorms every night, with castanets of raindrops clacking against my fly sheet.

The only drawback to our countrymen companions was their attitude to wildlife. We were in an area normally beyond the reach of humans, and hoped to see animals. But the commonest sight turned out to be dead caymans dumped by the camp. Every patch of water had caymans in it, animals quite unused to humankind. Our men imitated their calls with skill, the animals swam to the sound, and a blow with a machete did the rest. The men had

one 20 gauge shotgun amongst them (there was no way we could get it in the negotiations). Birds, as well as caymans, turned up in the nightly stew with beans. The only primate troop to visit the camp had the good sense to run when the shooting started, with three of our nine wishing them God speed. I am happy to say that none were hit. We saw one tapir, and I think I saw a harpy eagle, but it was only a glimpse.

When our two weeks were up, our food supplies were down to the remains of a bag of manioc flour, nothing else, (except or a dwindling supply of caymans). We packed everything and had hauled it to our new helicopter pad in the early dawn light. We were cut off by 200 km of jungle through some of which at least we knew that our best pace was a kilometer a day -say three months walking. The hum of an engine was spot on time at nine o'clock, the pilot saw the new landing ground at once, and came right in.

This expedition can stand as my swan song at STRI, as I am leaving to continue the research from Woods, Hole, where Llewellyn Hillis and I have a house. It is good to have ended my time here with a successful gamble in the Amazon. My thanks to all the STRI who have helped us on our way. ☺

Miscellaneous

Se Vende: Mazda 323 1992, jueg^o sala \$600, mesita \$60, peinadora \$220, maquina de cocer \$200, refrigeradora \$450. Llamar a Celideth at 672-3529.