

# STRI newsletter

October 15, 1993

SMITHSONIAN TROPICAL RESEARCH INSTITUTE - Apartado 2072, Balboa, Panamá

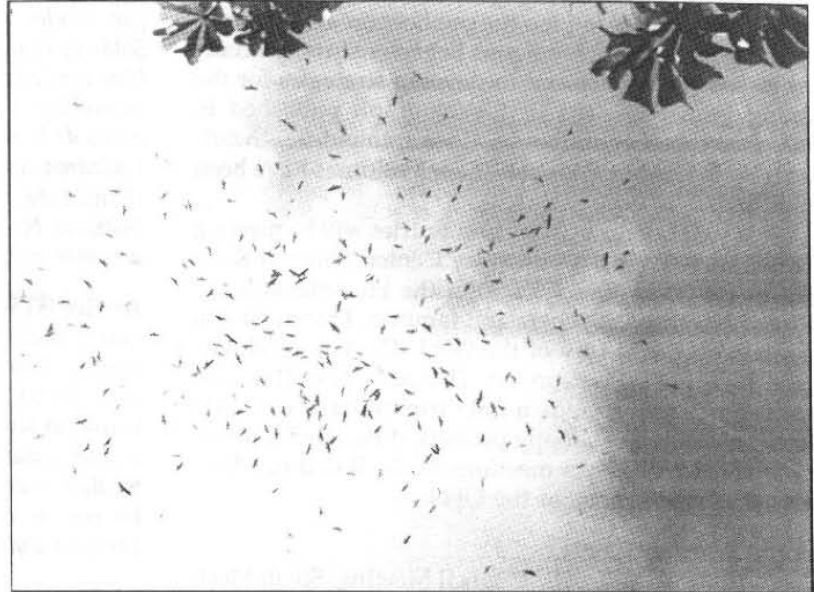
No. 42

## TUPPER CENTER SEMINARS

Tue, Oct 19, noon seminar speaker will be Connie Kolman, Yale University  
*Human Genetics Central America*

### Abstract

An in-depth statistical analysis of four Panamanian Amerind groups has revealed striking differences among Amerinds and across the small area of Panama that have not been revealed by the more global studies of Amerinds conducted thus far. Two groups from each of the two linguistic families present in Panama, Chibcha and Choco, were studied by DNA sequencing of a portion of the highly variable mitochondrial region. The Chibcha exhibit decreased levels of mitochondrial diversity when compared with other human groups and relative to the Choco. The difference in genetic diversity confirms the linguistic distinction between the Chibcha and the Choco, but provokes questions concerning historical differences between the groups. What event(s) led to the difference in mitochondrial diversity of two genetically and geographically related groups?



More than 200 people attended Neal Smith's seminar on the "most spectacular natural phenomenon in Central America" on Saturday Oct 9 at the Salón Las Oropéndolas, Metropolitan Park. The seminar described the yearly migration of the Swainson's hawks (in the photo) from North to South America. On their way to Argentina, the hawks can be seen over Panama during the months of October to November. (Foto: Neal G. Smith)

## SPECIAL SEMINARS

### Next Week

Special seminars by candidates for the new position of Animal Behaviorist at STRI start next week:

- Mon, Oct 25, noon seminar speaker will be Bill Wcislo: *Behavior of Learned Recognition in Relation to Social and Sexual Behavior in Sweat Bees.*
- Thu, Oct 28, noon seminar speaker will be Ethan Temeles: *Hummingbirds, Flowers, and Behavioral Mechanisms of Coevolution.*

## PEOPLE

### Arrivals

- Hubert Herz, Julius-von-Sachs Institut für Biowissenschaften, Germany, Oct 18-23, to work with W. Beyschlag, on BCI.
- Olga Linares returns from France.
- Lucy Dorick, SI Development Office, Oct 24-30, on official business at STRI.

### Departures

- Eldredge Bermingham, Oct 20-1 Nov, to Puerto Rico, to collect birds for research.

## THINGS YOU SHOULD KNOW

### From the Director's Office

The Andrew Mellon Foundation has awarded STRI a three year grant of \$900,000 to support initiatives in plant ecological research. Bill Robertson IV, Program Officer of the Foundation, visited STRI last March and met with several members of the scientific staff. Thanks to all STRI staff who helped make this visit such a success, and congratulations to the scientists who will receive the Mellon support.

### Flora Neotropica

by Noris Salazar Allen

STRI will hold the Organization for Flora Neotropica (OFN) meeting from October 20-24. The OFN is a UNESCO nongovernmental organization whose main goal is the publication of a complete flora of the tropical America region. The OFN also promotes botanical studies and exploration throughout Latin America and it is actively working towards the conservation of the neotropical flora. The administrative headquarters of the OFN is at The New York Botanical Garden. Currently, the OFN consists of 150 Commission members from 30 different countries presided by Paulo G. Windisch of Brazil. The

Organization meets every year in one of the Latin American countries to plan the publication of taxonomic treatments of plants, fungi and lichens naturally occurring in the Neotropics and to develop strategies for the coming year. Since the first monograph published in 1967, *Swartzia* (Leguminosae, Caesalpinioideae, Swartzieae) by B. Cowan, sixty additional volumes have been published.

This year scientists from 10 countries will be meeting at the Earl S. Tupper Conference Center. Some of them will give a 30-minute lecture on the biosystematics of selected Neotropical genera and families. There will also be a talk on the history of the OFN. The talks will take place in the Auditorium on Thursday the 21st. The meeting will also include a field trip to Barro Colorado Island, a visit to the canopy projects at Parque Metropolitano and small group meetings of the Board of Directors and Commissions of the OFN.

#### At the Tupper Center

- Mon, Oct 18 ■ Scientific Council Meeting, Small Meeting Room, 9am.
- Presentation of the book *Agenda Ecológica y Social para Bocas del Toro*, edited by Stanley Heckadon, Conference Hall, 9am.
- Tue, Oct 19 ■ Noon seminar by Connie Kolman, Auditorium.
- Thu, Oct 21 ■ Flora Neotropica Meeting, Conference Hall, 8:30am.

#### At the Culebra Marine Reserve

- Tue, Oct 19 *Los Pastorcitos de Fátima*, 8:30-11:30am.
- Wed, Oct 20 *Escuela República de México*, 8:30-11:30am.
- Thu, Oct 21 *Rincón Infantil Roxana de Arosemena*, 8:30-11:30 am.
- Fri, Oct 22 *Escuela Manuel Urbano Ayarza*, 8:30-11:30 am.
- Sat, Oct 23 *Universidad Santa María La Antigua*, 8:30-11:30am.

## ANNOUNCEMENTS

### *Agenda Ecológica y Social para Bocas del Toro*

Official presentation of the book *Agenda Ecológica y Social para Bocas del Toro*, edited by Stanley Heckadon, will take place on Mon, Oct 18 at the Tupper Center Conference Hall, 10:00 a.m. The book presents results and conclusions from workshops carried out on social, ecological and economical problems in Bocas del Toro province. The workshops were sponsored by the Wildlife Conservation Society, STRI and INRENARE. Interested persons are invited ••• *El lunes 18 de octubre se hará la presentación oficial en la ciudad de Panamá, del*

*libro Agenda Ecológica y Social para Bocas del Toro, editado por Stanley Heckadon Moreno. El acto tendrá lugar en el Salón de Conferencias del Centro Tupper a las 10:00 am. Este libro contiene los resultados y las conclusiones de los seminarios-talleres sobre los problemas sociales, ecológicos y económicos de la provincia de Bocas del Toro. Estos seminarios se realizaron con el auspicio de la Wildlife Conservation Society, el Instituto Smithsonian de Investigaciones Tropicales y el Instituto Nacional de Recursos Naturales Renovables. Las personas interesadas están invitadas.*

#### At the STRI Mini-Bookstore ••• En la Librería

Our famous pocket reusable raincoats with the STRI logo (yellow and blue), for this season's heavy rains for only \$2.50. Also, the new BCI t-shirts designed by Diamond Kylo, \$12.00 ••• *Nuevamente, nuestros famosos capotes reusables con el logo de STRI (amarillo y azul), para las lluvias de final de año, a sólo \$2.50. También a la venta, las nuevas camisetas de Barro Colorado con el diseño de Diamond Kylo, a \$12.00.*

#### Looking for Photos ••• En Búsqueda de Fotos

The STRI Office of Development at Washington is looking for photographs on STRI programs for our new brochure. If you wish to submit your photos for this publication, please send original slide with a short caption, before Oct 27, to Maria Luz Calderon, Office of Education, Tupper Center. Photo credit will be given. All slides will be returned ••• *La Oficina de Desarrollo Institucional de STRI en Washington, está preparando un nuevo catálogo sobre los programas del Instituto, para lo que busca fotografías. Si usted desea someter sus fotos para esta publicación, favor de enviar diapositivas originales (con leyendas cortas explicando su contenido) a María Luz Calderón, Oficina de Educación, Centro Tupper, antes del 27 de octubre. Las diapositivas serán devueltas y se publicarán los créditos.*

#### '93 Christmas Party ••• Fiesta de Navidad del '93

Mark your calendars for the STRI Christmas Party, scheduled for Friday, Dec 17 at the Tupper Conference Hall and Corotu Plaza ••• *Marque sus calendarios para la Fiesta de Navidad de STRI, programada para el viernes 17 de diciembre en el Salón de Conferencias del Centro Tupper y la Plaza Corotú. ¡No se la pierda! Habrán sorpresas y mucha diversión.*



## POSICION ABIERTA

### Director de la Estación Biológica La Selva

La Organización para Estudios Tropicales requiere un Director para la Estación Biológica La Selva en Puerto Viejo de Sarapiquí, Heredia, Costa Rica, a partir de febrero de 1994. Los candidatos o candidatas deben ser bilingües (español-inglés), tener el Ph.D. en ciencias biológicas o afines; ser investigadores que puedan aprovechar los recursos de la estación en su trabajo científico; tener experiencia y disposición para encargarse de la supervisión y desarrollo de una operación que atiende a unos 75 científicos diarios, maneja unas 1500 ha. de bosques experimentales y de reserva y emplea a 50 personas; y poseer la visión y el liderazgo para guiar un centro científico de primera línea. Para mayor información puede comunicarse con las oficinas de la OET. Las aplicaciones deberán incluir curriculum vitae, una descripción del interés personal y aptitudes para el puesto y cinco referencias (nombre, dirección postal y teléfonos). Las aplicaciones se recibirán hasta el 10 de diciembre de 1993. Contacto: Charles E. Schnell, OTS, Oficina Centroamericana, Apdo. 676-2050, San Pedro, Costa Rica, Fax 40-6783. Tel. 40-6696.

## TRAINING OPPORTUNITIES

### Garden Club of America Scholarships in Tropical Botany

The Garden Club of America will award two \$5,000 grants to assist doctoral candidates in botany who are interested in pursuing independent field work in the tropics. U.S. citizenship is not a requirement, however, students must be enrolled in a U.S. university Ph.D. program to be eligible for this scholarship. The awards are highly competitive and made on a one-time basis. Generally, one scholarship is awarded in the tropical plant systematics area and the second scholarship in tropical forest ecology, but specific awards have been made for a wide range of research projects.

There is no formal application to be completed. Graduate students should submit an application packet including a curriculum vitae with copies of graduate transcripts; evidence of foreign language capability, if necessary for country of research; a two-page statement of the proposed research, including its relevance to conservation; a personal letter describing plans for the future and commitment to conservation of tropical forests may add merit in support of the application; and a letter of recommendation from graduate supervisor, including an evaluation of progress to date. Applications

are due by Dec 31, 1993. Recipients will be announced by Mar 15, 1994. Please mail applications to: Lori Michaelson, World Wildlife Fund/Garden Club of America, Scholarships in Tropical Botany, World Wildlife Fund, 1250 Twenty-Fourth Street, NW, Washington D.C. 20037.

## NEW STRI PUBLICATIONS

- Cambra T., R.A. and Quintero, Diomedes.** 1993. "Studies of *Timulla* Asmead (Hymenoptera: Mutillidae): New Distribution Records and Synonymies, and Descriptions of Previously Unknown Allotypes." *Pan-Pacific Entomologist* 69(4).
- Quintero A., Diomedes.** 1993. "Feeding Upon Spiders by Female Pompilid Wasps." (Abstract). *Proceedings of the 30th Anniversary Association of Tropical Biology*, San Juan, Puerto Rico: 127.
- Ryan, Michael J. and Rand, A. Stanley.** 1993. "Sexual Selection and Signal Evolution: The Ghost of Biases Past." *Phil. Transactions of the Royal Society of London B* 340: 187-195.

## RESEARCH UPDATE

### Evidence for Environmental Degradation in Ancient Belize

by John G. Jones

Recent investigations at Cobweb Swamp in northern Belize indicate that environmental degradation was a significant factor in the demise of the Maya civilization around AD 1000. Using pollen evidence from a series of sediment cores collected adjacent to archaeological sites, a remarkably clear picture of the region's paleoenvironment has been obtained. Radiocarbon dates provide a time frame for this scenario.

It appears that the Maya settled this area earlier than anyone imagined: around 3000-2500 BC. Their settlement is marked by a dramatic reduction of forest trees, large amounts of charcoal in the sediments; disturbance vegetation and cultigens, including corn, chilies, cotton, manioc and squash. Rising populations forced the Maya to cultivate more and more land, and forests continued to wane throughout the period of Maya occupation.

Towards the end of the 10th Century AD, it appears that the Maya finally pushed their environment too far. The pollen record shows little evidence of forest taxa, and the swamps all began filling in with sediment. This sediment derived from massive erosion of the cultivated uplands: erosion caused by the loss of soil retaining vegetation.

Other factors such as political degeneration, warfare and just plain cultural "old age" were also factors in the



demise of the Maya. In any case, around AD 1000, the Maya civilization collapsed, leaving us only ruins and a people who have lost most of their identity with these ancient builders.

Armed with only stone tools, it took the Maya 3000 years to destroy their environment: How long will it take us with chain saws and bulldozers?

*Taken from The Toucan 19(9): 9 (1993)*

### MISCELLANEOUS

#### From Tupper Scientific Coordinator

Raineldo Urriola can be located now with a beeper. Leave messages with the operator at 64-5155, or dial directly 64-0222, code 4306.

#### Reminder ••• Recorderis

Please keep your personal belongings in a safe place. Missing property has been reported lately. Keep the Security Office informed of any irregularity. Your collaboration will be greatly appreciated ••• *Nuevamente recomendamos guardar objetos personales de valor en un lugar seguro. Ultimamente, se han reportados algunas pérdidas. Favor avisar a la Oficina de Seguridad sobre cualquier irregularidad. Se le agradecerá su colaboración.*

#### Looking for Lodging in the Naos Area

Patricia Sánchez, Electrophoresis Lab, is looking for lodging in Naos or Balboa, for the months of January through June, 1994. Please leave messages at the Martin's, Tel. 28-6195.

### NEW STRI BOOKLIST

Advances in bioclimatology. Volume 1 / with contributions by R.L. Desjardins... [et al.].

QK754.5.A38 1992X STRI.

Biological data analysis: a practical approach / edited by John C. Fry.

QH323.5.Z64 1993X STRI.

Comparative embryology of angiosperms / B.M. Johri, K.B. Ambegaokar, P.S. Srivastava.

QK495.A1J73 1992 STRI.

The Ecology of recently-deglaciated terrain: a geoecological approach to glacier forelands and primary succession / John A. Matthews.

QK910.M38 1992X STRI.

Flowering plants: dycotyledons, magnoliid, hamamelid, and caryophyllid families / volume editors, K. Kubitzki, J.G. Rohwer, and V. Bittrich.

QK495.A12F58 1993X STRI.

Gene and chromosome analysis.

QH442.G33 1993 STRI.

The Hot-blooded insects: strategies and mechanisms of thermoregulation / Bend Heinrich.

QL495.H38 1993X STRI.

Kingfishers, bee-eaters & rollers: a handbook / C. Hilary Fry and Kathie Fry.

QL696.C72F79 1992X STRI.

Mammals as predators: the proceedings of a symposium held by the Zoological Society of London and the Mammal Society, London, 22nd and 23rd November 1991 / edited by N. Dunstone and M.L. Gorman.

QL758.M26 1993 STRI.

Mealybugs of Central and South America / D.J. Williams and M. Cristina Granara de Willink.

QL527.P83W722m 1992 STRI.

Mutualism and community organization: behavioural, theoretical, and food-web approaches / edited by Hiroya Kawanabe, Joel E. Cohen, and Keiji Iwasaki.

QH548.3.M88 1993X STRI.

The People who discovered Columbus: the prehistory of the Bahamas / William F. Keegan.

F1655.K44 1992X STRI.

Pottery in archaeology / Clive Orton, Paul Tyers, Alan Vince.

CC79.5.P6O78 1993X STRI.

Prehistoric subsistence on the southern New England coast: the record from Narragansett Bay / David J. Bernstein.

E78.R4B47 1993X STRI.

Regolith exploration geochemistry in tropical and subtropical terrains / edited by C.R.M. Butt, H. Zeegers.

TN270.R45 1992X STRI.

Reproductive seasonality in teleosts: environmental influences / editors, Angus D. Munro, Alexander P. Scott, T.J. Lam.

QL639.2.R485 1990X STRI.

Species conservation: a population-biological approach / edited by A. Seitz, V. Loeschcke.

QH76.S64 1991X STRI.

The Wildlands project.

QH75.W67 1992 STRI.