

STRI newsletter

May 14, 1993

SMITHSONIAN TROPICAL RESEARCH INSTITUTE - Apartado 2072, Balboa, Panamá

No. 20

TUPPER CENTER SEMINARS

Tue, May 18, noon seminar speaker will be Paulo de Oliveira, STRI postdoctoral fellow.

Plant Communities and Climate of Southeastern Tropical Brazil since the Last Glacial Maximum

Abstract

Pollen analyses and marine records of the southern Atlantic Ocean coupled with glaciological data from the southern Andes have indicated that intense cooling associated with increased precipitation levels characterize the last glacial cycle of southern South America. Few palynological and phytolith data from the equatorial region of the American neotropics also indicate drastic temperature depression during the last glacial maximum with concomitant appearance of novel tropical forests having no modern analogs. We present here the oldest paleoecological record yet available from southeastern Brazil. This area presently has a climate conducive to the existence of tropical rainforests, semi-deciduous rainforests and various categories of cerrado vegetation. Our vegetational reconstruction of two sites in Minas Gerais indicates that intense cooling occurred synchronously with high levels of humidity prior to 40,000 years before present, thus allowing the expansion of *Araucaria-Podocarpus* forest (conifer forest) into the lowlands. The last pronounced cooling conditions occurred at around 10,500 years before present. After this time, the modern mosaic of vegetation types became established as warm climates became prevalent in the area. The intense cooling observed appears to be in synchrony with glacier expansions in Chile and Argentina, and are likewise directly related to a 5-7° northward latitudinal displacement of the Antarctic Polar Front into the continent during the last glacial cycle.

Next Week

Tue, May 25, noon seminar speaker will be Elisabeth K.V. Kalko, National Museum of Natural History, Washington D.C. and University of Tuebingen, Germany
Echolocation and Feeding Behavior in Neotropical Bat Communities



Marissa Crespo instructs Marlene García on the different forms and macros used by the Office of Education. Marlene started working at this office on May 3 and will replace Marissa, who worked for STRI for five years ••• Marissa Crespo muestra a Marlene García diferentes aplicaciones y macros que se usan en la Oficina de Educación. Marlene comenzó a trabajar en esta oficina el 3 de mayo para reemplazar a Marissa, quien trabajó en STRI por cinco años.
(Foto: M.A. Guerra)

BAMBI

Fri, May 21, Bambi speaker will be Robert Dudley, University of Texas at Austin, at 7:30pm.

Biochemical Constraints on Anuran Call Characteristics.
Please arrange transportation with BCI.

PEOPLE

Arrivals

- Gene Morton, Alexandra Sangmeister, Rob Fleisher and Sheryl Tarr, National Zoological Park, Washington D.C., May 15-8 Jun, to study individual territoriality in two tropical birds, in Gamboa.
- Robert Srygley and Carla Penz, University of Cambridge, U.K., May 15-30 Jun, for comparative research of butterfly species, in Gamboa.
- Chris D'Orgeix, Virginia Polytechnic Institute, May 15-15 Aug, to study multiple-paternity behavior of *Agalychnis callidryas* and its evolutionary implications, in Gamboa.
- Robin Andrews, Virginia Polytechnic Institute, May 15-27, to conduct studies on the population dynamics of vertebrates of tropical forest undergrowth, on BCI.

- **Fred Andrews**, California Department of Food and Agriculture, May 15-5 Jun, to conduct systematic studies on the *Lathridiidae* and *Chrysomelidae*, in Nusagandi.
- **Edward Riley**, Texas A & M, May 15-1 Jun, to conduct general studies on the systematics and biology of leaf beetles, in Nusagandi and Fortuna.
- **Arthur Gilbert**, California Department of Food and Agriculture, May 15-16 Jun, to carry out systematic investigations of the subfamily *Criocerinae* in Central America, in Nusagandi and Fortuna.
- **H. Hertz**, Julius-von-Sachs Institut fuer Biowissenschaften, Germany, May 17-to work with W. Beyschlag, on BCI.
- **Francisco Dallmeier**, Luis Tassara and James Camisky, SI Office of International Relations, May 17-21, to discuss SI/MAB program within STRI.
- **Robert Dudley**, short-term visitor from University of Texas, May 18-15 Jul, to study biomechanics and ecophysiology of butterfly migrations in Panama, on BCI.
- **Ram Oren**, short-term visitor from Duke University, May 18-9 Jun, to study tree transpiration, at Tupper.
- **John Griggs**, short-term fellow from Texas Tech. University, May 19-20 Aug, to survey and test excavations in the Belen Valley, with Richard Cooke.
- **Marc Dantzker**, University of Texas at Austin, May 19-15 Aug, to work with Mike Ryan, in Gamboa.
- **Evandro De Oliveira**, short-term fellow from the University of Texas at Austin, to conduct experimental studies on the orientation of migrant butterflies, on BCI.
- **Rachel Levin**, G. Fowler, D. Livingston, T. Paris and J. Richmond from Pomona College, CA, May 20-21 Jul, to study the social and hormonal influences on the development of sex differences in a duetting wren, in Galeta.
- **Duncan Thomas**, environmental consultant, May 21-27, to visit the CTFS to consult with staff regarding their research.
- **Anson H. Hines**, Assistant Director at the Smithsonian Environmental Research Center in Washington, to visit STRI facilities and consult with staff.

Departures

- **Steve Paton**, ESP Project coordinator, May 15-26, to Atlanta, GA, to attend a training course in computer programming and visit a computer exposition.
- **Nick Smythe**, staff scientist, May 21-11 Jun, to U.S. and Canada on vacation.

Behavior Discussion Group

Paul Morris, STRI postdoctoral fellow, will host a discussion on *Adaptation and the Goals of Evolutionary Research* based on the recent article by Reeve, H.K. and Sherman, P.W. 1993. *Q. Rev. Biol.* 68: 1-32. Copies of this article will be made available on BCI (launge) Gamboa (Bldg. 183) Naos (U. Schober) and Tupper (Lounge).

THINGS YOU SHOULD KNOW

At Tupper Center

- Mon, May 17 ■ Opening of Exhibit *Nuestros Bosques: Nuestra Herencia*, Exhibit Hall, 2pm.
- Tue, May 18 ■ *Reunión de la Comisión del Medio Ambiente de la Asamblea Legislativa para discutir el Anteproyecto de Ley de la Reserva Natural de Bahía Las Minas*, Conference Hall, 9am.
- Seminar by Paulo de Oliveira, Auditorium, 12 noon.
- Wed, May 19 ■ *Conversations at the Smithsonian to DODDs*, by John Christy and Ursula Schöber, Auditorium, 3 pm.

Seatbelt Use Mandatory Under New Panama Law

Nueva Ley Obliga a Usar Cinturón de Seguridad
Panama passed a law requiring seatbelts for all motor vehicles occupants and prohibits children under 5 years old from being carried in the front seat of a vehicle. Violations to this law are subject to fines from \$25-\$100, with a possible 3-6 month suspension of licenses for repeated offenders. All cars must have seatbelts by August 18, 120 days after April 20, the day the new law went into effect ••• *Panamá aprobó la ley que establece el uso obligatorio de cinturones de seguridad para todos los ocupantes de vehículos de motor, y prohíbe que niños menores de cinco años viajen en el asiento delantero de automóviles. Los conductores de vehículos que violen la ley recibirán multas de \$25 a \$100, con una posible suspensión de su licencia de conducir de tres a seis meses para los reincidentes. Todos los autos deberán tener cinturones de seguridad antes del 18 de agosto, o sea, 120 días después de aprobada la ley, el 20 de abril.*

ANNOUNCEMENTS

STRI Mini Bookstore News

Recently, the STRI Mini Bookstore became member of two National Associations: the Museum Store Association (MSA) with offices in Denver, CO, and the National Association of College Stores (NACS) with headquarters in Oberlin, OH. These memberships are highly beneficial since they offer educational services and promote interaction between their associates and other vendors. Ana Maria Ford, STRI Mini-Bookstore manager, attended the 70th Annual Meeting and Campus Market Expo of the NACS held in Denver from Apr 17-22, and contacted suppliers as well as most of the publishers and companies related to college bookstores and museum store shops.

De la Oficina de Recursos Humanos Nueva Secretaria del Centro Tupper

Amarjit Arguelles será la nueva secretaria del Centro Tupper a partir del 30 de mayo de 1993. Amarjit estudia publicidad en la Universidad de Panamá y ha tomado cursos de mercadeo y relaciones públicas en Cavendish College, Inglaterra y cursos avanzados de inglés en Frances King School. Amarjit trabajó como secretaria en la Embajada de Panamá en Londres y ha prestado servicios de gerencia en Panamá.

En nombre del personal de STRI le damos la más cordial bienvenida y le deseamos muchos éxitos en su nuevo trabajo en el Centro Tupper.

Leoncio Rodríguez

Felicitemos a Leoncio Rodríguez, quien trabaja en STRI como mensajero en el Centro Tupper y en Tívoli, al ser escogido entre un número de candidatos para trabajar de manera permanente a partir del 30 de mayo. Le exhortamos a que continúe haciendo su trabajo como lo ha hecho hasta ahora.

Nuevos Libros en la Tienda Ecológica del Parque Natural Metropolitano

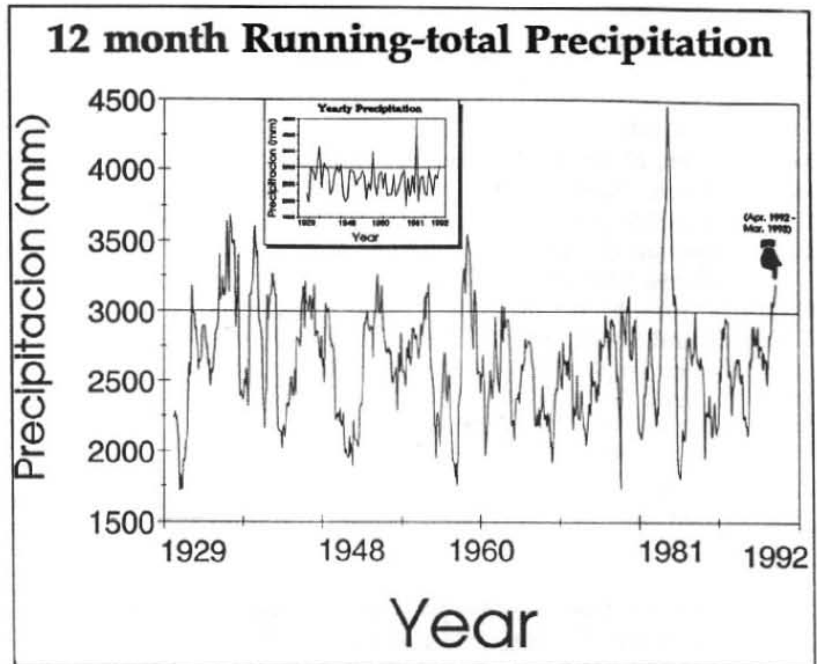
Como parte del Programa Educativo y de promoción del Parque Natural Metropolitano que auspicia STRI, María Bernal, administradora de la Tienda Ecológica asistió a la 6ta. Feria Internacional del Libro en Santafé de Bogotá, Colombia, a finales de abril. Como resultado de esta visita, la tienda cuenta con nuevo material bibliográfico en ecología de diversas casas editoriales internacionales. Los interesados pueden acercarse al Parque.

JOB OPPORTUNITY

Applied Cultural Anthropologist

—Applied Ethnography position with emphasis on issues related to implementation of the Native American Graves Protection and Repatriation Act (NAGPRA), Washington D.C.—

The National Park Service, Washington D.C. Office, hopes to recruit an applied cultural anthropologist in the near future. This new position is in the applied ethno-



How Wet is It?

by Steve Paton, ESP Project Data Manager

Since rainfall patterns usually have a very strong seasonal effect, this question is usually addressed by comparing yearly total precipitations. This type of analysis, however, tends to obscure trans-calendar year weather phenomenon which may be of great interest. For example, BCI began 1992 with one of the driest dry-season in the last 30 years. The following wet season was one of the wettest since 1960. The total precipitation for 1992 is 3027 mm. high, but if we look at the 12 month period from April 1992 to March 1993, the total precipitation for that 'year' is an even higher 3204 mm.

The above graph shows the total precipitation for all consecutive 12 month periods (12 month running totals) beginning in Jan 1929 and ending in Mar 1993. Compared to the graph of yearly total precipitations (inset graph), the graph of 12 month running totals reveals a number of new features and accentuates many others.

graphy program which addresses relationships between parks and communities with traditional associations to the cultural and natural resources under Service stewardship. A general program goal is to infuse park planning, management, curation, and interpretation with systematic concern for people with longterm associations to park resources. The incumbent's responsibilities include developing policies, guidelines, and contracts identifying cultural affiliations between past and present Native Americans and park collections or other resources. The formal job announcement could become available in May or June. To get on the mailing list for receiving the announcement, please write to Dr. Muriel Crespi, Senior Anthropologist, Anthropology Division, National Park Service, P.O. Box 37127, Washington D.C. 20013-7127.

STRI NEW PUBLICATIONS

- Linares, Olga F. 1993. "The Politics of Signification: Computers in Côte d'Ivoire and Kenya." *Semiotica* 93(3-4): 341-346.
- Salazar Allen, Noris. 1993. "Editorial." *Briolatina* 29: 1.
- Salazar Allen, Noris. 1993. "Notas de Florística y Taxonomía." *Briolatina* 29: 3-4.
- El Smithsonian: Un Instituto para la Investigación de los Trópicos. 1993. *Momento* 71(3): 50-54.
- Wright, S. Joseph, Machado, José Luis, Mulkey, Stephen S. and Smith, Alan P. 1992. "Drought Acclimation Among Tropical Forest Shrubs (*Psychotria*, *Rubiaceae*)." *Oecologia* 89: 457-463.
- Zeh, David W., May, C.A., Coffroth, Mary A. and Bermingham, Eldredge. 1993. "Mbol and *Macrohaltica*—Quality of DNA Fingerprints is Strongly Enzyme-Dependent in an Insect (Coleoptera)." *Molecular Ecology* 2: 61-63.

STRI NEW BOOKLIST

- Analytical population dynamics / T. Royama.
QH352.R69 1992X STRI.
- Conservation of neotropical forests: working from traditional resource use / Kent H. Redford and Christine Padoch, editors.
GF514.C66 1992X STRI.
- Ecology: individuals, populations, and communities / Michael Begon, John L. Harper, Colin R. Townsend.
QH541.B415 1990X STRI.
- Immature insects / edited by Frederick W. Stehr.
QL495.5.I46 1987X v. 1 & 2 STRI.
- Methods in Plant Biochemistry, v.9: Enzymes of secondary metabolism / edited by P.J. Lea.
QK861.M592 STRI.
- Musgos y líquenes como bioindicadores de la contaminación atmosférica por metales pesados en el área del Gran Bilbao, España / Teresa Tarazona Lafarga, A. Manrique Fournier, J. Rodríguez Ruiz.
QK544.S7T17 1987 STRI.
- Natá prehispanico / Reina Torres de Araúz.
F1565.1.C6T69 1992 STRI.
- Natural grasslands / edited by Robert T. Coupland.
QH541.5.P7N28 1992 STRI.
- Paleopathology: disease in the fossil record / B.M. Rothschild and L.D. Martin. R134.8.R67 1993X STRI.
- People of the Tonro Rim: archaeological discovery in prehistoric Arizona / Charles L. Redman.
E78.A7R44 1993X STRI.
- Phytochemical dictionary: a handbook of bioactive compounds from plants / edited by Jeffrey B. Harborne and Herbert Baxter; with the assistance of Rene Grayer ... [et al.].
Ref QK898.B54P48 1993X STRI.
- Plant root growth: an ecological perspective / edited by D. Atkinson.
QK644.P53 1991X STRI.
- Prehispanic domestic units in western Mesoamerica: studies of the household, compound, and residence / edited by Robert S. Santley, Kenneth G. Hirth.
F1219.3.D9P74 1993X STRI.
- Les Pylochelidae ou << Pagures symétriques >> (Crustacea Coenobitoidea) / Jacques Forest.
QL444.D3F716 1987 STRI.
- Small project automation for libraries and information centers / Jane B. Mandelbaum Z678.9.M35 1992X STRI.
- Statistical yearbook = Annuaire statistique / Unesco.
Ref AZ361.S797 1992 STRI.
- Tropical forests and their crops / Nigel J.H. Smith ... [et al.].
Ref SB111.T76 1992X STRI.
- World atlas of Holocene sea-level changes / Paolo Antonio Pirazzoli; assistant, Jean Pluett.
Ref GC89.P53 1991X STRI.
- The World of Learning. Ref AS2.W6 1993 STRI.
- Advances in the Study of Behavior, v.22, 1983.

A todos los biólogos panameños que trabajan en STRI, se les invita a la Asamblea General que realizará el Colegio de Biólogos de Panamá, el próximo miércoles 19 de mayo en el Salón de las Oropéndolas del Parque Natural Metropolitano a las 5:00 p.m.

From: 365 Ways to Save our Planet
• Page-a-Day Calendar •

The "Great American Meatout" is one-day moratorium on eating animal flesh. Reducing the amount of meat in our diets is beneficial in many ways—it promotes water conservation and more equitable use of food resources. Try one meatless day—you may like it.