

# STRI newsletter

November 26, 1993

SMITHSONIAN TROPICAL RESEARCH INSTITUTE - Apartado 2072, Balboa, Panamá

No. 48

## TUPPER CENTER SEMINARS

Tue, Nov 29, noon seminar speaker will be Guillermo Orti, State University of New York

### *Mitochondrial DNA and Two Perspectives on Stickleback Evolution*

#### Abstract

Mitochondrial DNA (mtDNA) sequences were used to estimate phylogenetic relationships among species of the family Gasterosteidae, and to study intraspecific variation at a global scale in the threespine stickleback. Phylogenetic relationships among stickleback species supported by mtDNA are incongruent with previous hypotheses based on morphological and behavioral characters. Shortening of the body is a derived trait among gasterosteiform fishes, originally thought to have evolved only once in the family Gasterosteidae. Results based on the present study suggest that it could have evolved twice independently. Some of the implications for the study of character evolution in this group are discussed. The intraspecific study in *Gasterosteus aculeatus* revealed high variability at the mtDNA level (up to 5% sequence divergence). Two major clades corresponding to either side of the Pacific basin were found. All Atlantic stickleback surveyed fall within the Eastern Pacific clade, suggesting a recent ancestry for Atlantic basin populations. Both clades coexist in two localities in the Northern Pacific. A more detailed survey of haplotype distribution is presented for some freshwater Alaskan populations.



Luis D'Croz, STRI's research associate from the University of Panama, gave a seminar on marine studies as part of the biological inventory in the Panama Canal alternatives study, on Thursday, November 18, at the Tupper Center Auditorium ••• Luis D'Croz, investigador asociado a STRI de la Universidad de Panamá, dictó un seminario sobre estudios marinos en el Canal de Panamá, el jueves 18 de noviembre, en el Centro Tupper. (Foto: A. Montaner)

## PEOPLE

### Arrivals

- Osozawa Kishimoto, Ehime University, M. Yamaoka, National Institute of Bioscience and Human Technology and Y. Asako, Marine Biotechnology Institute, from Japan, Dec 2-3, to consult with STRI staff on issues related to conservation and sustainable use of tropical bioresources.

### Departures

- D. Ross Robertson, Nov 29-24 Jan, on combined vacation and research trip to Australia.
- Ursula Schober, Nov 29-24 Jan, on vacation to Australia.
- Joe Wright, Dec 2-7, to Mexico City, Mexico, to attend an NSF sponsored workshop on ecosystem function of biodiversity in tropical forests.

## BAMBI

Thu, Dec 2, Bambi speaker will be James Nieh, Cornell University

### *First Steps to Understanding Communication in the Stingless bee, Melipona eburnea*

Please call BCI for transportation arrangements.

## THINGS YOU SHOULD KNOW

### At the Tupper Center

- Mon, Nov 29 ■ *Fundación Dobbo Yala: Taller de Diagnóstico Institucional.* Small Meeting Room, 8am.
- Tue, Nov 30 ■ *Fundación Dobbo Yala: Taller de Diagnóstico Institucional.* Small Meeting Room, 8am.
- Noon seminar by Guillermo Orti, Auditorium.
- Behavior Discussion Group Meeting, Conference Hall, 5pm.

**At the Culebra Marine Reserve**

Tue, Nov 30 *Escuela 24 de Diciembre.*  
 Wed, Dec 1 *Instituto Pedagógico.*  
 Thu, Dec 2 *Escuela Samaria Sinaí.*  
 Fri, Dec 3 *Escuela Nuestra Señora de Lourdes.*

**TRAINING • ENTRENAMIENTO****Forest Diversity Monitoring**

A training course in monitoring forest diversity is being held in Venezuela from Feb 11-19. The course, directed toward Latin American students and professionals, is jointly sponsored by the Programa de Recursos Naturales Renovables, UNELLEZ, and the Smithsonian's Man and the Biosphere Program. For more information please contact Dr. Basil Stergios, UNELLEZ, Guanare, Herbario Universitario, Mesa de Cavacas, Estado de Portuguesa, Venezuela.

**II Simposio Internacional Humedales '94**

27 al 30 de septiembre de 1994 • Cuba

La Delegación Provincial de la Academia de Ciencias de Cuba en Matanzas convoca al II Simposio Internacional Humedales '94 en la Ciénaga de Zapata, provincia de Matanzas, Cuba. Se discutirán temas de interés y actualidad para incentivar al intercambio de experiencias en aspectos como la protección, conservación y explotación de los humedales y recursos naturales, la creación de reservorios de especies endémicas y otras en peligro de extinción, el aprovechamiento de los humedales con fines turísticos, etc. El programa científico se desarrollará en conferencia magistral, simposio, mesas redondas, cursos teórico prácticos, video, foro de investigaciones y posters. Cuota de inscripción (no incluye los cursos teórico-prácticos) \$200 para delegado y \$70 para acompañante. Para mayores detalles visite la Oficina de Educación de STRI en el Centro Tupper.

**POSITION AVAILABLE****Population • Evolutionary Genetics**

The Department of Biology at the San Francisco State University seeks a tenure-track assistant/associate professor conversant with modern theory in population genetics and analysis of molecular data. Requirements: A Ph.D. and postdoctoral experience desired. The successful candidate is expected to offer courses in population genetics and area of specialization, and participate in graduate and undergraduate instruction, establish a research program, interact with the program in conservation biology and supervise M.A. students. For more information about this position, contact

Thomas B. Smith, Chair, Population/Evolutionary Genetics Search Committee at (415) 338-1089. Interested candidate should submit a curriculum vitae, statement of teaching and research goals, two research papers or manuscripts, and arrange for three letters of reference to be sent by December 15 to Gregory Antipa, Chair, Hiring Committee, Department of Biology, San Francisco State University, 1600 Holloway Avenue, San Francisco, California 94132.

**RESEARCH POSITIONS AVAILABLE****Biogeochemical Consequences of Vegetation Change**

The Department of Rangeland Ecology and Management at Texas A&M University offers postdoctoral fellowships, graduate research assistantships (Ms. and Ph.D.) and research technician positions to support a project aimed at understanding the biogeochemical consequences of changes in tree-grass abundance in savannas. Changes in carbon and nitrogen cycling along a successional chronosequence from open grassland to closed-canopy woodland will be emphasized. Potential areas of investigation would include studies on (1) significance of N<sub>2</sub>-fixation by woody legumes; (2) changes in carbon and nitrogen sequestration above- and belowground; (3) changes in rates of nitrogen transformation; and (4) changes in rates of soil respiration and soil organic matter dynamics. Qualifications dependent upon position. Training in plant ecology, soil science, biogeochemistry, or closely related discipline is essential. For graduate research assistant, stipends range from \$8,700 to \$14,000 per year, depending on background and qualifications. Salaries for postdoctoral fellows and technicians are competitive and commensurate with experience. For additional information, please contact Steven R. Archer or Thomas W. Boutton, Department of Rangeland Ecology and Management, Texas A&M University, College Station, Texas 77843-2126. Tel. (409)845-7331 • Fax (409)845-6430.

**MISCELLANEOUS****¿Pueden los Osos Polares Pedalear en el Agua?**

Todos están invitados al video ¿Pueden los Osos Polares Pedalear en el Agua?, el miércoles 1 de diciembre en el Centro de Visitantes del Parque Natural Metropolitano, a las 5:30pm.

**To Cat Lovers**

A beautiful small female cat with a large personality was abandoned at the Panama Viejo Quarantine facility. She is from Italy! If you would like to provide a home for her, please contact Harry Barnes or Ana Maria Ford.