

# STRI news '98

Smithsonian Tropical Research Institute • P.O. Box 2072, Balboa, Panamá • Tel 227-6022 • Fax 232-5978

## TUPPER CENTER SEMINAR

Tue, Mar 24, noon seminar speaker will be Leticia Aviles, University of Arizona  
*On Cooperation, Non-Linear Dynamics, and Sociality in Spiders*

### Abstract

Social spiders will be used to illustrate how group-living and cooperation may affect the fitness of individuals in groups of different sizes. Consideration of the dynamical effects of cooperation, may shed light both on the ecological and demographic conditions leading to the origin and maintenance of group-living as well as on the forces responsible for shaping the diversity of animal societies.

## CHARLA DEL MES

El Patronato del Parque Natural Metropolitano y STRI invitan a la XXI Charla Smithsonian del Mes, el miércoles 25 de marzo, Salón "Las Oropéndolas", Centro de Visitantes del Parque Natural Metropolitano, 7:30pm. La charla será dictada por Mireya Correa, STRI

### La Flora de Panamá

Mayor información: Tel 232-5516 • Fax 232-5615 • E-mail: pnmetro@sinfo.net

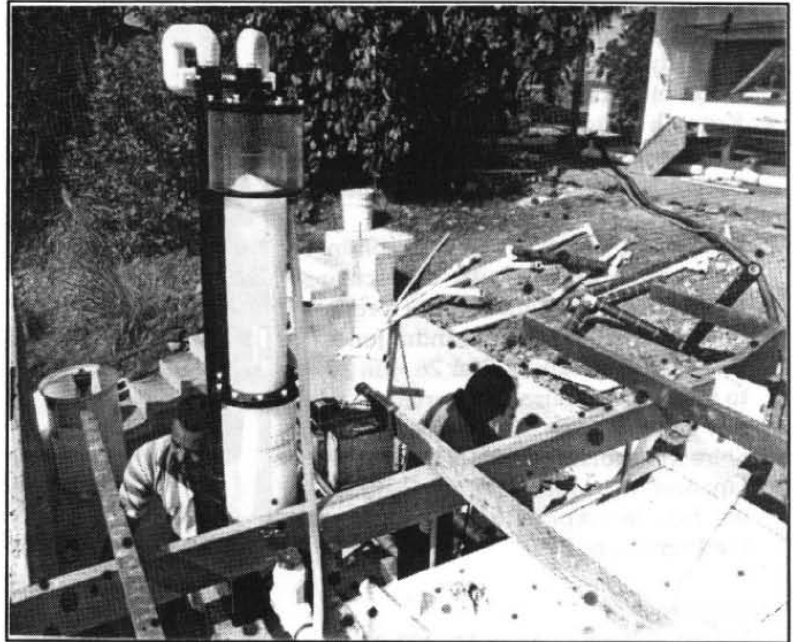
## BAMBI SEMINAR

Thu, Mar 26, Bambi seminar speaker will be Diane DeSteven, University of Wisconsin  
*Restoring Degraded Wetlands: Some Case Studies and Issues from the Southeastern US*

Transportation and dinner reservations are essential. Please call BCI at 272-2124.

## LUNCHEON SEMINAR

For information about the Naos Luncheons, consult with Bailey Kessing or visit the Web at [http://160.111.136.12/Naos\\_Luncheon\\_Schedule.html](http://160.111.136.12/Naos_Luncheon_Schedule.html)



*Gilberto Howell and Oscar Jiménez installed the new electrical support for the new closed sea water system of the acuario at the Culebra Marine Exhibition Center. The new system will simulate the physical and chemical properties of the Pacific and Caribbean environments to provide more natural and healthier habitats for the organisms in the acuario ••• Gilberto Howell y Oscar Jiménez instalaron el nuevo equipo eléctrico necesario para dar apoyo al sistema cerrado de agua salada para los acuarios del Centro de Exhibiciones Marinas de Culebra. El nuevo sistema imita las condiciones físicas y químicas del Pacífico y del Caribe para proveer un ambiente más natural y saludable para los organismos de los acuarios.*

(Foto: M.A. Guerra)

## PEOPLE

### Arrivals

- John Werren, senior postdoctoral fellow from the University of Rochester, Mar 22 - Apr 30, to study the parthenogeneses and incompatibility of microorganisms in neotropical insects, at Tupper.
- Howard Lasker and Colin Duke, University of Buffalo, Mar 22 - Apr 20, to study the broadcast spawning and the population ecology of coral reef invertebrates, in San Blas.
- Renae Brodie, University of Washington, Mar 22-28, to study the ontogeny of shell-related behaviors and transition to land in the terrestrial hermit crab *Coenobita compressus*, at Naos.
- Janie Wulff, Middleburg College, Mar 23 - Apr 4, to study the coral reef sponge ecology population dynamics and defenses against predators, in San Blas.

- Jonathon Stillman and Greg Jensen, Stanford University, Mar 23 - Apr 16, to study the adaptation of porcelain crabs, at Naos.
- Kenneth Clifton, University of California, Mar 25 - Jun 3, to study the fertilization kinetics of green algal genetic release, in San Blas.
- Erica Kiers, Mar 25 - Apr 1, to continue research of vesicular arbuscular mycorrhizae in lowland tropical forests.
- Valery Terwilliger and Chandra Jones, University of Kansas, Mar 26 - Jun 30, to study the resource use variations of fast growing trees, at Gamboa.
- Shiro Matsuoka, Shimokita Peninsular Japanese Macaques Research Committee, Mar 26 - Apr 6, to do research of the Primate, at BCI.

#### Departures

- Eldredge Bermingham, Mar 23-31, to Guatemala, on an expedition to do research on the historical biography of Central America as revealed by the molecular systematics of the region's freshwater fishes.
- Egbert Leigh, Mar 24 - Jun 6, to present seminars at various universities around the United States.
- Richard Cooke, Mar 25-29, to Seattle, Washington, to attend the 63rd Annual Meeting of the Society for American Archaeology.
- Héctor Guzmán, Mar 27 - Apr 4, to Costa Rica, to establish sites for maintaining the Pacific reefs and octocoral communities.

#### MISCELLANEOUS

Everyone is invited to celebrate the opening of Janet Levi's three week show at the Alianza Francesa. The party starts at 7:30 in the evening of Tuesday, March 24. Wonderful paintings on wood, good food, and good company.



Chief Librarian Vielka Chag-Yau briefed members of the Women's Board of the Field Museum of Natural History of Chicago, during study tour to Panama and STRI, in the company of Robin Foster, on Wednesday, March 18 ••• Vielka Chag-Yau, directora de la Biblioteca, habla a miembros del Consejo de Mujeres del Museo de Historia Natural de Chicago, durante una gira de estudios a Panamá y STRI, en compañía de Robin Foster, el miércoles 18 de marzo. (Foto: M.A. Guerra)

#### DE RECURSOS HUMANOS

##### Nueva Tabla de Salarios para Empleados Manuales

Se avisa por este medio a todos los trabajadores manuales de STRI (WG, WL y WS) que la nueva tabla de salarios reflejando el 2.3% de aumento efectivo el 4 de enero de 1998, ya está en manos del National Finance Center (NFC), lugar donde se procesan las planillas de STRI. Hemos sido informados que lo más probable es que el aumento venga reflejado en el pago del Período N° 6 (día de pago: 9 de abril de 1998), retroactivo al 4 de enero de 1998.

##### Feria Educativa Ambiental en el Parque Natural Metropolitano 18 y 19 de abril, 1998

¡Ven y participa de las!

- Competencias
- Presentaciones Artísticas
- Juegos recreativos
- Exhibiciones Educativas
- Venta de Comidas
- Giras Guiadas

Hora: 9am a 6pm  
Sábado y Domingo

Entrada general: 25 centavos

Mayor información:  
Tel: 232-5552 • E-mail: pnmetro@sinfo.net

FROM THE DIRECTOR ••• MENSAJE DEL DIRECTOR



**Dealing with the Drought**

STRI is beginning to experience the consequences of the prolonged El Niño influenced drought in our everyday working experience. Those of you working on Barro Colorado are experiencing a very low lake level and increased probability of collisions with submerged tree stumps while operating small boats. All of us will soon be experiencing periodic electrical outages resulting from the diminished hydroelectric generating capacities in Panama's reservoirs. At most sites we may be asked to reduce our demands upon the IRHE produced electricity by using our own generators at least part of the time.

It is time for us all to recognize this crisis and to make the changes that will help to ameliorate the consequences of the drought. We need to operate boats more slowly and carefully in order to avoid collisions with unfamiliar subsurface topography. We need to conserve water and electricity by turning off unnecessary electrical lighting and equipment. Everyone needs to be aware that they will experience more frequent electrical outages and/or switchovers from the national power grid to our own generators. Every effort will be made to announce these changes in advance, but you should be aware of the increase risk in using equipment sensitive to these electrical fluctuations. Thank you for your cooperation.

*Ira Rubinoff*

**Enfrentando la Sequía**

STRI empezó a experimentar las consecuencias de la sequía causada por un prolongado fenómeno de El Niño, en las rutinas de trabajo. Los que trabajan en Barro Colorado experimentan el bajo nivel del Lago, con mayor peligro de colisionar con árboles sumergidos mientras manejan botes pequeños. Pronto, todos estaremos enfrentando cortes periódicos de electricidad, resultado de una disminución en la capacidad hidroeléctrica de las reservas de Panamá. En la mayoría de nuestras instalaciones nos pedirán que bajemos la demanda de energía producida por el IRHE, y usemos nuestros generadores, por lo menos parte del tiempo.

Es el momento de reconocer la crisis y llevar a cabo cambios que ayuden a aliviar las consecuencias de la sequía. Necesitamos operar las lanchas más despacio y con más cuidado para evitar colisiones con la topografía sumergida que no conocemos. Necesitamos ahorrar agua y electricidad apagando equipo y luces innecesarias. Cada uno debe estar consiente de que experimentará cortes de electricidad más frecuentes o cambios del uso de la electricidad nacional a la electricidad producida por nuestros generadores. Se harán todos los esfuerzos para anunciar estos cambios con anticipación, pero debe estar consiente del riesgo, cada vez mayor, en el uso de equipo sensitivo a estas fluctuaciones en la electricidad.

Gracias por su cooperación.

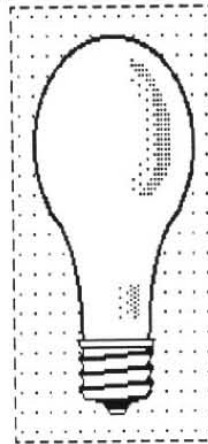
*Ira Rubinoff*

FROM FACILITIES MANAGEMENT

**Dealing with the Drought**

**Enfrentando la Sequía**

On March 3, 1998, Leonor Motta sent an e-mail asking for your suggestions to save water and electricity. We have already received several ideas and we have evaluated them, proceeding to implement some of them while others, although valid, will cause a negative impact to our operations than benefits to the country's reserve of water or electricity. What is very important is the awareness that there is a real problem we will have to confront very soon and what the Institution could do is more



Bright Ideas

traumatic to our operations and may be less effective than the support everyone at STRI can contribute. As far as now, we have given the following instructions:

- Reduce watering of gardens
- Control water hose from the car wash
- Toilets' lights will be off and users should take care of switching on and off the lights

We suggest the following:

- Turn off the lights of offices when not in use
- Turn off your computer when not in use
- Set the thermostat of the air conditioning system warmer. This will save energy with less side effects than turning off the entire system. *Carlos Tejada*

El 3 de marzo de 1998, Leonor Motta mandó un correo electrónico pidiendo sus sugerencias para ahorrar agua y electricidad. Ya hemos recibido varias ideas y las hemos evaluado, hemos llevado a cabo algunas, y otras, aunque válidas, podrían causar un efecto negativo en nuestras operaciones, en vez de beneficiar la reserva de agua o electricidad del país. Lo que es muy importante es la conciencia de que este es un problema real con el que tendremos que lidiar prontamente, y lo que la Institución puede hacer es más traumático a nuestras operaciones y puede que sea menos efectivo que el apoyo que cada uno en STRI pueda brindar. Hasta el momento, hemos dado las siguientes instrucciones:

- Reducir el riego de los jardines
- Controlar la manguera para lavar los carros
- Apagar las luces de los baños. Los usuarios serán los responsables por prender y apagar las luces.

Sugerimos lo siguiente:

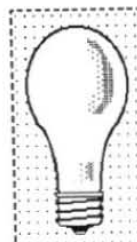
- Apague las luces de las oficinas, cuando no está usándola
- Apague su computadora cuando no la está usando
- Fije la temperatura del aire acondicionado de su oficina un poco más alta. Esto ahorrará energía con menos efectos secundarios que apagar el sistema completo. *Carlos Tejada*

## NEW STRI PUBLICATIONS

Cooke, Richard. 1997. "The Felidae in Pre-Columbian Panama." In: *Icons of Power: Feline Symbolism in the Americas*: 77-121, edited by Nicholas J. Saunders. Routledge.

Engelbrecht, B. 1998. "Two Neotropical Rainforests with Different Rainfall Regimes: A Comparison of Microclimatic Conditions and the Diversity, Abundance and Distribution of Congeneric Understory Shrubs." [Abstract]. *Kurzbeiträge zur Tropenökologie*: Abstracts of the Final DFG Symposium 12: 89.

- Engelbrecht, B. and Hertz, H. 1998. "Evaluation of Different Methods to Estimate Understory Light Conditions in Tropical Forests." [Abstract]. *Kurzbeiträge zur Tropenökologie*: Abstracts of the Final DFG Symposium 12: 88.
- Hertz, H., Wirth, R., Hölldobler, B. and Beyschlag, W. 1998. "High Rate of Leaf-Cutter Ant Colony Movements in a Tropical Forest." [Abstract]. *Kurzbeiträge zur Tropenökologie*: Abstracts of the Final DFG Symposium 12: 109.
- Ibáñez D., Roberto., Jaramillo, César A. and Fuenmayor, Q. 1997. "Geographic Distribution: *Dendrobates granuliferus*." *Herpetological Review* 28: 207.
- Jennions, Michael D. 1998. "The Effect of Leg Band Symmetry on Female-Male Association in Zebra Finches." *Animal Behavior* 55: 61-67.
- King, D.A., Leigh, Jr., Egbert G., Condit, Richard, Foster, Robin B. and Hubbell, Stephen P. 1997. "Relationship Between Branch Spacing, Growth Rate and Light in Tropical Forest Saplings." *Functional Ecology* 11: 627-635.
- Piperno, Dolores R. 1997. "Phytoliths and Microscopic Charcoal from Leg 155: A Vegetational and Fire History of the Amazon Basin During the Last 75 K.Y." In: *Proceedings of the Ocean Drilling Program, Scientific Results*, 155: 411-418. Edited by R.D. Flood, D.J.W. Piper, A. Klaus, and L.C. Peterson.
- Tejera, V. H., Ibáñez D., Roberto and Arosemena G., G. (eds.). [1998]. "El Inventario Biológico del Canal de Panamá. II. Estudio Ornitológico, Herpetológico y Mastozoológico." *Scientia (Panama)*, Número Especial 2: 1-281.



Bright Ideas.

### Bright Idea for the Week Idea Brillante para la Semana

The Tupper Center, your "intelligent building" reminds you how easy it is to conserve energy. Turn off one of the wall light switches in your office, to produce a softer illumination and save energy ••• El Centro Tupper, su "edificio inteligente" le recuerda qué tan fácil es conservar energía. Solo debe apagar uno de los interruptores de electricidad de pared su oficina para lograr una iluminación más suave, ahorrando electricidad.

*Erick Lam*