

# STRI newsletter

July 23, 1994

SMITHSONIAN TROPICAL RESEARCH INSTITUTE - Apartado 2072, Balboa, Panamá

No. 28

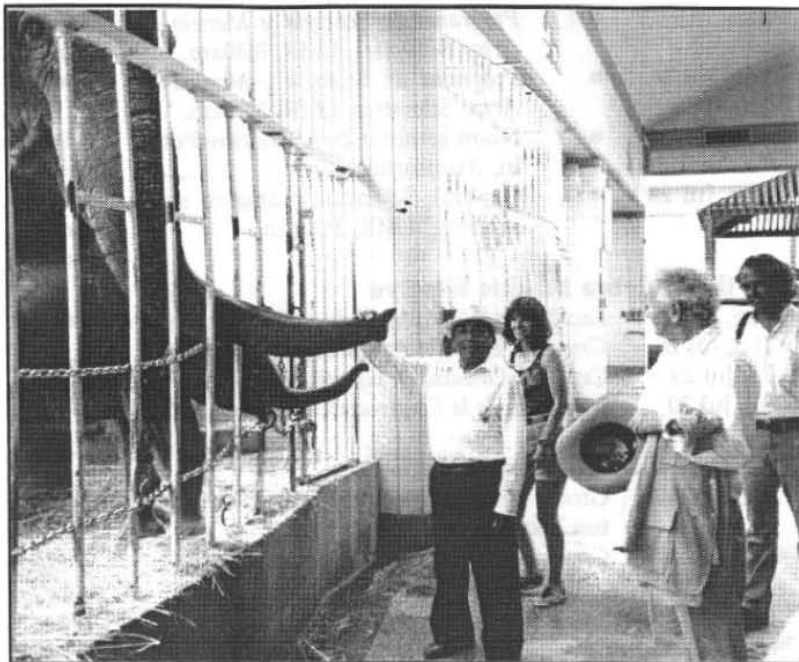
## TUPPER CENTER SEMINARS

Tuesday, July 26, noon seminar speaker will be Catherine Potvin, McGill University, Montreal

*Negative Responses of the Wild Mustard Brassica juncea to selection under simulated global change: genetic correlations and inbreeding depression*

### Abstract

I will examine the combined effects of gradually increasing CO<sub>2</sub> concentration and temperature over successive generations of the wild mustard *Brassica juncea* (L.) Czern. After 7 generations, a reciprocal transplant was used to partition genetic and plastic responses. Genetic adaptation was detected for vegetative traits. Leaf area and vegetative biomass increased by 52% and 63% under simulated global change. Conversely, the response of reproductive biomass was purely plastic and maladaptive. Total pod biomass decreased by 70%. Two hypotheses for the reduction in reproductive biomass will be discussed: negative genetic correlations and inbreeding depression. The induction of inbreeding depression by simulated global change will be discussed regarding its potential impact for conservation strategies.



On Wed, Jul 6, Michael Robinson, SI National Zoological Park Director at Washington D.C. (center) and Jorge Ventocilla, STRI's Office of Education, toured Leonidas Valdés Kantule, "Primer Cacique" of Kuna Yala, during the celebration of the Festival of American Folklife, sponsored by the Smithsonian Institution ••• Michael Robinson, director del Parque Zoológico Nacional del Smithsonian en Washington y Jorge Ventocilla, de la Oficina de Educación de STRI llevaron, el miércoles 6 de julio, a recorrer el zoológico a Leonidas Valdés Kantule, Primer Cacique de Kuna Yala, durante la celebración del Festival Folclórico Americano, realizado por el Smithsonian.

## PEOPLE

### Arrivals

- Charles Handley, SI National Museum of Natural History, Jul 27-14 Sep, to work on his project of the demography and natural history of figs on BCI.

### Departures

- Steve Paton, Jul 24-30, to San Juan, Puerto Rico, to visit the U.S. Geological Survey and other institutions to consult with colleagues.
- Ira Rubinoff, Jul 25-30, to Houston, TX and Washington D.C. on official business.

### Condolences

Or condolences to Neal and Ninotchka Smith, for the death of Neal's aunt, on Tuesday, July 12, at Lakewood, NY, .

### Congratulations

To Charles Handley Jr., who was recently awarded the Thomas Jefferson Medal given for outstanding contributions to natural science at the Virginia Museum of Natural History.

### Felicitaciones

A los miembros del equipo de futbol de STRI que ocupó el tercer lugar en la Liga Interdivisional de la Comisión del Canal de Panamá.

## THINGS YOU SHOULD KNOW

### For Tivoli Residents

On Monday, July 25, there will be no electricity at the Tivoli Administrative offices nor the STRI Library from approximately 8am through 1pm. Nevertheless, the STRI offices will be open during that time.

**At Tupper Center**

- Mon, Jul 25 ■ *Programa de Ecología y Manejo de Areas Silvestres*, LMR, 8:30am.
- Tue, Jul 26 ■ *Programa de Ecología y Manejo de Areas Silvestres*, LMR, 8:30am.
- Noon seminar by Catherine Potvin, Auditorium.
- Thu, Jul 28 ■ General Scientific Support staff meeting, LMR, 1:30pm.

**At the Culebra Marine Reserve**

- Tue, Jul 26 *Facultad de Educación, Universidad de Panamá.*
- Thu, Jul 28 *Grupo de la Iglesia Adventista*
- Fri, Jul 29 *Centro de Orientación Infantil de la Contraloría.*
- Sat, Jul 30 *Ingenieros de la Construcción de la Biblioteca.*

**At Barro Colorado Island Station**

- Sat, Jul 23 Group from Colegio La Salle and Fort Clayton Recreation Center.
- Tue, Jul 26 *Grupo Conservacionista de Penonomé.*

**FY 1995 Restricted Endowment Funds**

Units conducting scientific research in areas that may qualify them for support in FY 95 from the restricted endowment funds listed below should submit proposals to the Office of the Assistant Secretary for Research through the STRI Director's Office. Deadline for submissions at STRI: August 15, 1994. Request from individual scientists should consist of a short (one to two page) proposal and an itemized budget. Bureau directors will develop a list of priorities for competing proposals within their units. General departmental proposals may be submitted for requests for departmental operating expenses associated with research and will be judged on their merits against single or multi-investigator proposals. All proposals must conform with the terms of the original bequest to the Institution, which are available for reference at the STRI Director's Office and the Office of the Assistant Secretary for Research at Washington D.C. For those who received support from these funds in FY94, please include an object class breakdown of the projected expenditures for FY94, and a brief progress report which summarizes research accomplishments to date. A decision on allocation of these funds will be made prior to October 1, 1994. As in previous years, once the allocation is made, bureau directors will have the authority to propose shifts in monies consistent with the purpose of the endowment.

Fund Name	Purpose of Bequest
Abbott	Investigation in biology
Arthur	To investigate and study the sun and to fund the annual lecture on the sun

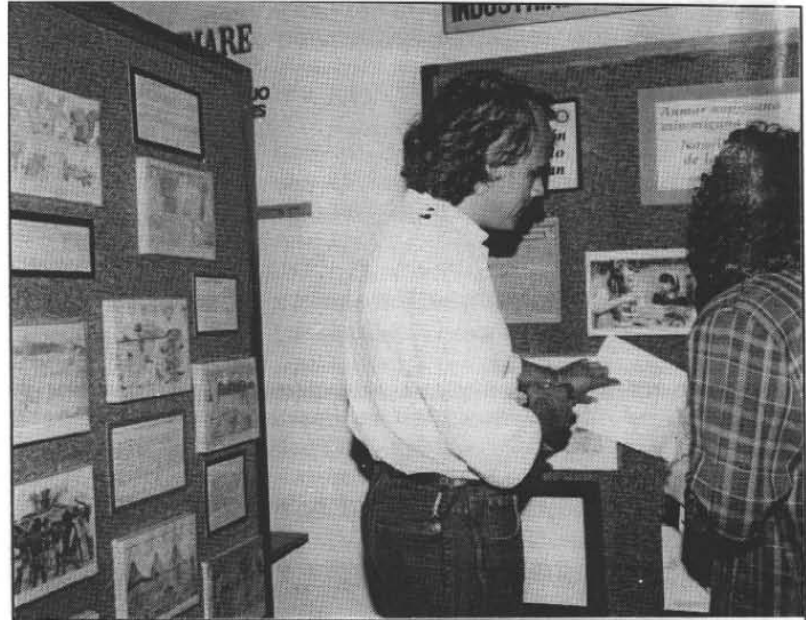
Baird	Scientific exploration and research
Lindbergh	Conservation, aviation, and medicine
Becker	Advancement of geophysics
Loeb	Furtherance of knowledge in exact sciences
Hodgkins	Study of atmospheric air
Johnson	Advancement of underwater photography
Nelson	Birds and mammals of the Americas
Reid	To fund a Chair in biology
Roebing	Make necessary observations at high altitudes
Rollins	Push forward the bounds of physics and chemistry
Spague	Advancement of physical sciences
Walcott	(Original & Research). Development and publication of geological and Paleontological Studies
Walcott	(Botanical). Botanical Publications

**ANNOUNCEMENTS****News from STRI-DC Office**

- We owe our deepest appreciation to Glenn Tupper and his family who, this May, added \$1 million to the Tupper Endowment for Research at STRI. This is the third gift to the Institute's Endowment from Glenn Tupper.
- Two deserving projects at STRI have been funded by the Department of Defense's Legacy program. "Stability of Tropical Forests and Tropical Forest Fauna on Military Installations of the Panama Canal Area" and "Development of the Culebra Marine Education Center, Panama" have received approval for FY 94 funds from DOD totalling almost \$275,000.
- The Tinker Foundation will provide partial funding, in the amount of \$60,000 over the next two years, toward the development of an environmental-policy program at STRI.
- Research on mangroves to monitor the effects of the 1986 oil spill at Galeta has been extended for several months thanks to a renewed, short-term contract from the MSRC.
- STRI has received significant support recently from a number of internal Smithsonian sources. The James Smithson has awarded funds for the installation of solar panels at the San Blas Field Station. The Atherton Seidell Endowment Fund will partially underwrite the publication of a second edition of *The Ecology of a Tropical Forest*, ed. by Bert Leigh, Stan Rand and Don Windsor. The Smithsonian Special Exhibition Fund will subsidize the planning of a new exhibit on Insect Diversity, to be housed at the Tupper Center.

### NEW STRI PUBLICATIONS

- Burns, Kathryn A. and Yelle-Simmons, Lauren. 1994. "The Galeta Oil Spill. IV. Relationship Between Sediment and Organism Hydrocarbon Loads." *Estuarine, Coastal and Shelf Science* 38: 397-412.
- Burns, Kathryn A., Garrity, Stephen D., Jorissen D., MacPherson J., Stoelting, M., Tierney, J. and Yelle-Simmons, L. 1994. "The Galeta Oil Spill. II. Unexpected Persistence of Oil Trapped in Mangrove Sediments." *Estuarine, Coastal and Shelf Science* 38: 349-364.
- Dudley, Robert and Srygley, R.B. 1994. "Flight Physiology of Neotropical Butterflies: Allometry of Airspeeds during Natural Free Flight." *Journal of Experimental Biology* 191: 125-139.
- Garrity, Stephen D., Levings, Sally C. and Burns, Kathryn A. 1994. "The Galeta Oil Spill. I. Long-term Effects on the Physical Structure of the Mangrove Fringe." *Estuarine, Coastal and Shelf Science* 38: 327-348.
- Larimer, J.L. and Dudley, Robert. 1994. "Centrifugal Force and Blood Pressure Elevation in the Wings of Flying Hummingbirds." *Journal of Theoretical Biology* 168: 233-236.
- Levins, Richard and Adler, Gregory H. 1993. "Differential Diagnostics of Island Rodent Populations." *Coenoses* 8(3): 131-139.
- Levings, Sally C., Garrity, Stephen D. and Burns, Kathryn A. 1994. "The Galeta Oil Spill. III. Chronic Reoiling, Long-Term Toxicity of Hydrocarbon Residues and Effects on Epibiota in the Mangrove Fringe." *Estuarine, Coastal and Shelf Science* 38: 365-395.
- Zotz, Gerhard and Winter, Klaus. 1994. "A One-Year Study on Carbon, Water and Nutrient Relationships in a Tropical C<sub>3</sub>-CAM Hemi-Epiphyte, *Clusia unitana* Pittier." *New Phytologist* 127: 45-60.
- Zotz, Gerhard and Winter, Klaus. 1994. "Annual Carbon Balance and Nitrogen-Use Efficiency in Tropical C<sub>3</sub> and CAM Epiphytes." *New Phytologist* 126: 481-492.



At INRENARE's annual exhibition to celebrate "Natural Resources Month", Jorge Ventocilla, of the STRI's Office of Education, explains Kuna children's environmental drawings to visitors to the STRI exhibit ••• Durante la inauguración de la exhibición anual de INRENARE para celebrar el Mes de los Recursos Naturales, Jorge Ventocilla, de la Oficina de Educación explica los dibujos sobre el ambiente de niños Kunas en panel de STRI.

(Foto: A. Montaner)

### ENTRENAMIENTO

#### El Desarrollo Sustentable

La Universidad Latinoamericana de Ciencia- y Tecnología, la Fundación NATURA y el Centro de Estudios Latinoamericanos "Justo Arosemena" han organizado el curso "El Desarrollo Sustentable: Una Introducción para los No Iniciados" al que ha sido invitado Donald Worster, director del programa de naturaleza, cultura y tecnología de la Universidad de Kansas. El curso, dirigido a profesionales y promotores sociales con educación universitaria, pero sin formación específica en el campo de la ecología, proporcionará a los asistentes un primer acercamiento a la ecología como disciplina científica, a la evolución histórica de las ideas ecológicas en la cultura Occidental entre los siglos XVIII y XX, a la dimensión ecológica del desarrollo económico, social y político, y la necesidad de un desarrollo sustentable. Además, los asistentes podrán discutir estos temas en su relación con la realidad panameña. El curso se llevará a cabo del 9 al 11 de agosto de 1994 en el Hotel Granada, Salón García Lorca, 6-10pm. Profesionales \$75. Estudiantes \$40. Los interesados podrán obtener mayores informes en los teléfonos 28-1935 y 28-1936 de la Fundación NATURA o al teléfono 64-9688 de la ULACIT.





*The restoration of the old Surfside Building is scheduled to be completed for the end of September. This building will provide additional laboratory space at the Naos Island Laboratories ••• La renovación del viejo edificio Surfside en Naos se espera completar a finales de septiembre. Este edificio suministrará espacio adicional para los Laboratorios de Isla Naos.*

*(Foto: M.A. Guerra)*

## JOB ANNOUNCEMENT

### Senior Social Scientist

The Biodiversity Conservation Network (BCN) is a program implemented by the Biodiversity Support Program (BSP), a USAID-funded consortium of World Wildlife Fund, the Nature Conservancy, and the World Resources Institute. BCN works to systematically support site-specific application of enterprise-based approaches to the conservation of biodiversity at approximately 20 sites in the Asia Pacific region. BCN seeks a Senior Social Scientist and a Senior Biological Scientist to be based in the BCN Regional Office in Manila, Philippines. The BCN regional office is responsible for providing technical assistance to BCN grantees for the implementation and analysis of their projects, and establishing a network for sharing lessons learned among BCN grantees and the broader conservation and economic development community. These new positions are of critical component of BCN's efforts to help strengthen the capacities of local communities, nongovernmental organizations, governmental agencies, scientific research organizations, and private enterprises to conserve biodiversity for subsistence production and commerce in Asia and the Pacific.

The Senior Social Scientist will assist the BCN with the development of BCN competitive grants programs which addresses social science, biological and enterprise components, provide in-depth technical

assistance for the social science projects of the Network. The candidate must have M.S. in anthropology, sociology or related field; at least 8 years of experience in the field and 5 years of work experience in a Asian or Pacific nation. Travel requirement is 30-35% of the year throughout the Asia/Pacific region.

### Senior Biological Scientist

The Senior Biological Scientist will assist the BCN with the development of competitive grants program which addresses social science, biological, and enterprise components, provide in-depth technical assistance for all biological programs of the Network and devote significant time to the cooperative development and application of biological and social science monitoring and evaluation systems for each project. Candidate must have a M.S. degree in natural resource management, biological sciences or related, 8 years of experience in biological conservation and 5 years of experience in an Asian or Pacific nation. The travel requirement is 30-35% of the year throughout the Asia/Pacific region. Interested must send resume and a cover letter by mail: WWF Human Resources Department, 405M, 1250 24th Street, NW, Washington D.C. 20037 • Fax: (202)293-9211. Non- U.S. nationals encourage to apply.

## MISCELLANEOUS

### Inter-Departmental Envelopes

#### *Sobres Inter-Departamentales*

If you have surplus inter-departmental envelopes, please send them to Luis Turner at the Procurement Office, Tupper Center, for reissue ••• *Si usted tiene sobres de uso entre departamentos de sobra, favor de enviarlos a Luis Turner, Oficina de Compras en el Centro Tupper para re-distribuirlos.*

#### **Al Cierre...**

Habrá una charla sobre la American Federal Credit Union (AFCU) el lunes 25 de julio a las 9am en el auditorio del Centro Tupper. Todos los interesados están invitados a asistir.