

STRI news

November 14, 1997

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

TUPPER CENTER SEMINARS

Tuesday, November 18, seminar speaker will be Thomas Ebert, San Diego State University, at 11am

Consequences of Broadcasting, Brooding, and Asexual Reproduction in Spatially Structured Populations of Echinoderms

Also on Tuesday, November 18, seminar speaker will be Guillermo Goldstein, University of Hawaii, at 1pm

What Limits Tropical Woody Plants from Growing Beyond a Certain Height? Examples from Lowland Rainforest Trees and High Elevation Giant Rosettes

Abstract

Why old trees and woody perennial plants slow their growth as they age, preventing them from growing beyond a certain height, is a fundamental question that has not been completely answered. Four different groups of processes are thought to occur in temperate trees as an individual becomes older and taller; increased maintenance respiration, nutrient limitations, genetic changes in meristem tissues, and hydraulic limitations. The hydraulic limitation hypothesis (substantial increases in hydraulic resistance with increasing tree height could lead to water stress, decline in CO₂ assimilation, and reduce growth rates) is gaining some ground among tree physiologists and ecologists. Evidence for this hypothesis comes largely from studies carried out with conifers from temperate climates. Contrary to this, hydraulic constraints do not seem to limit tropical tree height. Tropical trees tend to have different hydraulic architecture and life history traits than conifers from temperate climates, such as shorter maximum height and much shorter life span. We will discuss the height limitations of tropical woody plants using examples from high elevation giant caulescent rosette plants and recent results from our studies on regulation of water flux in canopy trees from Panamanian seasonal forests. Stem water storage may partially compensate for increases in axial hydraulic resistance with tree height in both groups of tropical organisms, and thus an important role in regulating the water status of the canopy leaves.

CHARLA DEL MES

STRI y el Patronato del Parque Natural Metropolitano invitan a la XVIII Charla Smithsonian del Mes que será dictada por José Luis Andrade, el miércoles 26 de noviembre a las 7:30pm, en el Salón Las Oropéndolas del Centro de Visitantes del Parque Natural Metropolitano

Plantas Pequeñas en lo Más Alto del Bosque

Para mayor información favor llamar al Tel. 232-5516 • Fax 232-5615 • E-mail: pnmetrop@sinfo.net

PEOPLE

Arrivals

- Jacob Fahr, Nov 15 - 19, to work with Elisabeth Kalko on the echolocation and foraging behavior of neotropical bats, on BCI.
- Heinrich Krause, University of Dusseldorf, Germany, Nov 16 - Dec 14, to work on the photoinhibition of photosynthesis in leaves of tropical plants, at Tupper.
- Olga Koroleva, Russian Academy of Science, Nov 16 - Dec 14, to work with Heinrich Krause, at Tupper.
- Irma Echeverría, Program Assistant at STRI D.C. Office, on an orientation visit, to meet with staff and visit the facilities.
- Guillermo Goldstein, University of Hawaii, Nov 17 - 26, to continue studies on the environmental and physiological regulation of water flux through a tropical forest ecosystem, at BCI.
- Melinda Stevens, Marilyn Slomba and Debbie Burney, SI Office of Human Resources Management Support, Nov 18 - 20, to offer seminars to staff and supervisors on stress management, disciplinary actions, drugs and alcohol abuse, and private counseling, at Tupper and BCI.

Departures

- Noris Salazar-Allen, Nov 16-30, to Costa Rica, to attend meetings of the Association of Herbariums of Mesoamerica.
- Fernando Santos Granero, Nov 18-24, to Washington, D.C., to attend the meetings of the American Anthropological Association.
- Richard Cooke, Nov 18-28, to Washington D.C., to present a seminar at the Dumbarton Oaks Museum

and attend a workshop on the Archaeology of the Gran Chibha region.

- Jeremy B.C. Jackson, Nov 20 - Dec 15, to New Haven, CT, to present a seminar at Yale University, then to Basel, Switzerland, to work on the PPP molluscan collection and consult with colleagues.

FROM HUMAN RESOURCES OFFICE

Training Sessions in November

- Tuesday, November 18, 8:30am: Stress Management by Debbie Burney (in English) for all employees. Tupper Auditorium.
- Tuesday, November 18, 10:30am: available for private counseling, Debbie Burney, Tupper Large Meeting Room.
- Tuesday, November 18, 10:30am: Disciplinary Actions, by Marilyn Slomba (in English) for Managers and Supervisors, Tupper Exhibit Hall
- Tuesday, November 18, 1:pm: Drugs and Alcohol Abuse, by Debbie Burney (in English) for all employees, Tupper Large Meeting Room.
- Tuesday, November 18, 3-5pm: available for private counseling, Debbie Burney, Large Meeting Room.
- Tuesday, November 18, 3pm: Grievances and Complaints, by Marilyn Slomba (in English) for Managers and Supervisors, Tupper Exhibit Hall.
- Wednesday, November 19, 8:30am: Drugs and Alcohol Abuse, by Debbie Burney (with Spanish translation), Barro Colorado Conference Room.
- Thursday, November 20: 8:30am: Assistance to Troubled Employees, by Debbie Burney, for Managers and Supervisors, Large Meeting Room.

ANNOUNCEMENTS

Fellowships at STRI

STRI offers fellowships for research based at its facilities. Disciplines may include ecology, anthropology, paleontology, conservation biology, evolution, systematics, behavior and physiology of tropical plants and animals. Fellowships are for predoctoral students, postdoctoral, senior postdoctoral (one-year) and ten-weeks. Molecular postdoctoral Two-Year Fellowship available through the SI Office of Fellowships and Grants, Washington D.C., deadline: Jan 15. Directly at STRI are three-month fellowships for graduate students, deadline: Feb 15, May 15 and Aug 15 and Nov 15.

JOB OPPORTUNITY

La Red de Agricultura Conservacionista, organización no gubernamental internacional con sede en San José, Costa Rica, busca un(a) coordinador(a) de campo para asistir al director de programas para América Latina. La Red asesora y certifica a productores agrícolas de exportación en banano, café, cacao y azúcar. Su asesoría de campo y certificación de ECO-OK a productos primarios va dirigido a empresas privadas, gobiernos y ong. Los requisitos del cargo son tener maestría o doctorado en ciencias naturales, biológicas; cinco años de experiencia en conservación internacional y manejo de proyectos. Capacidad de trabajar con organizaciones no gubernamentales, empresas públicas y privadas. Habilidad en el manejo de computadoras, disponibilidad de viajar frecuentemente y ser bilingüe (español-inglés). Interesados favor aplicar a Pat Shields, Global Recruitment Specialist, 361-4, Post Road West, Suite 285, Westport, CT 06880 USA • Fax 203-899-0499 • Em: GLOBER@compuserve.com.

NEW STRI PUBLICATIONS

- Goos, R.D. 1997. "Fungi of Barro Colorado Island, Adjacent Panama, and the Cali Region of Colombia." *Mycotaxon* 64: 375-383.
- Stork, N.E., Wright, S. Joseph and Mulkey, S. Steve. 1997. "Craning for a Better View: The Canopy Crane Network." *Trends in Ecology and Evolution* 12(11): 418.
- Thiele, A., Winter, Klaus, and Krause, G.H. 1997. "Low Inactivation of D1 Protein of Photosystem II in Young Canopy Leaves of *Anacardium excelsum* under High-Light Stress." *Journal of Plant Physiology* 151(3): 286-292.

AT THE OFFICE OF EDUCATION #330

You may find information that is too long to publish. Some of this information concerns:

- Alexander Hollaender Distinguished Postdoctoral Fellowship Program 1998: Life, Biomedical, Supporting Disciplines. Deadline: Jan 15, 1998.
- The Garden Club of America: Opportunities for further study to college and graduate students, doctoral candidates and Ph.D.s.