

STRI news

January 10, 1997

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TUPPER CENTER SEMINARS

Tue, Jan 14, noon seminar speaker will be Carole Hickman, Museum of Paleontology, University of California at Berkeley

The Meaning of Similarity: Programs for Analysis of Repetitive Design in the Fossil Record

Abstract

One of the most difficult unsolved problems in evolutionary biology is how to distinguish the three possible mechanisms by which entities achieve their similarity. This occurs from the molecular level to the ecosystem level and extends beyond biology to linguistics and cultural anthropology. Traditional alternative explanations of similarity are (1) common ancestry (2) convergence to perform similar functions, and (3) direct transfer or borrowing. A mature science of structure must be fully capable of identifying all the factors that contribute to organismal form and analytically distinguishing the relative contribution of each factor. Paleontologists have played a major role in providing the framework and techniques for the analysis of structure and the interacting constraints and opportunities that have led to similar structures and repetition of form in unrelated groups at different times in the history of life. I examine developments in the field of constructional morphology and the uses of the formal Paradigm. Presented are methods for identifying functions of structures in bizarre extinct organisms, and the new concept of design space to examine the repeated evolution of similar structures.

BAMBI SEMINAR

Thu, Jan 16, Bambi seminar speaker will be Walter Carson, University of Pittsburgh

The Influence of Herbivores on Plant Communities: Lessons from Old-fields, Tropical Forests, and Prairies



Julie Velázquez Runk and Bil Grauel will lead the applied forestry project called "Management of Cativo Swamp Forest with Local Communities in Darién", with headquarters in La Palma. This 4-year effort will be carried out by STRI and INRENARE with funding from the International Tropical Timber Organization (ITTO). Julie will do research on "tagua" or ivory nut palm and Bil on the cativo trees ••• Julie Velázquez Runk y Bil Grauel serán los investigadores a cargo del proyecto de investigación forestal "Manejo de Cativales con Comunidades Locales en Darién", con oficinas en La Palma, Río Tuirá. Este esfuerzo de 4 años lo ejecuta STRI junto con INRENARE con fondos de la Organización Internacional de Maderas Tropicales (ITTO). Julie investigará la "tagua" o marfil vegetal y Bil sobre el árbol de cativo.

(Foto: M.A. Guerra)

PEOPLE

Arrivals

- Melvin Tyree and Virginia Velez, University of Vermont, Jan 11-22, to do research in the evolution and structure of terrestrial ecosystems, at BCI.
- Mamerto A. Gómez from Guatemala, Alfonso Sermeño Martínez, from El Salvador, Norman Gutiérrez, from Nicaragua, and José Calvo and Marvin Castillo, from Costa Rica, Jan 12-24, to attend the SI "Man and the Biosphere" (MAB) Biodiversity course, at Gamboa.
- Francisco Dallmaier, Jan 12-18, to coordinate the SI MAB Biodiversity course, at Gamboa.

- Jim Comiskey and Olga McBryde, SI MAB Office, Jan 12-24, to coordinate the Biodiversity course, at Gamboa.
- In-Ho Choi and Jae-Hau Shim, Yonsei University, Korea, Jan 13-3 Feb, to study the defensive responses of anuran amphibians against predation: variation in defense mechanisms and its ecological significance, at BCI.
- Robert Pearcy, Mellon senior fellow from the University of California, Jan 14-19, to carry out studies of photosynthesis and whole plant performance in the understory of BCI.
- Heinrich Schatz, University of Innsbruck, Austria, Jan 14-21 Feb, to work on the ecological and taxonomical investigations (biodiversity) on soil living mites (Acari, Oribatida) in Panama, in Gamboa.
- Bettina Engelbrecht, University of Darmstadt, Jan 15-15 Jul, to work on the specialization to light regime in Piper species: consequences for distribution, population dynamics and co-existence, at BCI.
- Kaoru Kitajima, Mellon postdoctoral fellow from the University of Missouri, Jan 16-30 Aug, to study the canopy plant allocation responses to seasonal and spatial variation in light and water availability, at Tupper.
- Bryan Bock, University of Oklahoma, Jan 17-24, to participate at the MAB Biodiversity course, at Gamboa.
- Ricardo Guerrero from Venezuela, Jan 18-24, to bring support to the MAB course, at Gamboa.
- Peter Glynn, Iliana Baums, Peggy Fong, Susan Theodosiou and Christine Hueerkamp, University of Florida, Jan 17-4 Feb, to continue studies on the effects of El Niño event, at Naos.

Departures

- David Roubik, Jan 12-20, to Mexico, to collaborate in research of avocado pollinators, then to Costa Rica, for meetings on funding for tropical ecology programs.
- Rick Condit, Jan 14-6 Feb, to Cameroon, to attend "The African Rainforest workshops and the Conservation of Biodiversity" and visit the Korup National Parks.
- Ira Rubinoff, Jan 15-20, to Costa Rica, to meet with members of the Tupper Foundation and to attend meetings of the OTS.
- Allen Herre, Bill Wcislo and Joe Wright, Jan 16-19, to Costa Rica, to attend meetings of the OTS.

Our Condolences

To Richard Condit and Mary Schultz, for the recent death of his father.

New Honor

The Netherlands Organization for Scientific Research, NWO, has invited Paul Colinvaux to give the 1997 Huygens Lecture. These annual lectures are given by an outstanding scholar from abroad to an audience of university staff, high level civil servants and politicians.

Congratulations

To Tugrul Giray, STRI postdoctoral fellow, who received the George C. Eickwort Award, "for outstanding student of social insects" given annually by the North American Section of the International Union for the Study of Social Insects.

ANNOUNCEMENTS

Seminario-Taller de MAB en Panamá

Con el apoyo científico del Programa del Hombre y la Biosfera del Smithsonian, MAB, se llevará a cabo en Gamboa el Seminario-Taller Regional sobre Inventario y Monitoreo de la Biodiversidad, del 13 al 24 de enero. El seminario MAB, organizado por STRI, INRENARE y la Fundación Natura, tiene como objetivo el fortalecimiento de técnicas de inventario y el monitoreo de la biodiversidad forestal. El curso, diseñado principalmente para estudiantes nacionales y centroamericanos, se dictará por primera vez en español y contará con la participación de investigadores del Smithsonian y la Universidad de Panamá. El curso MAB llena los requerimientos de la Red Internacional de Parcelas de Biodiversidad de la UNESCO, la que está unida al Proyecto MAB del Smithsonian por el uso del sistema de manejo de datos "BioMon". STRI, INRENARE y la Fundación Natura gestionaron el financiamiento de becas para los participantes, con la colaboración de la SENACYT y el PNUD.

El curso será inaugurado el lunes 13 de enero a las 9:am en el Centro Tupper, con la presencia de autoridades de nuestra comunidad científica y universitaria.

NEW STRI PUBLICATIONS

Heckadon-Moreno, Stanley. 1996. "Estudios de Henri Pittier sobre los Guaymies de Chiriquí, 1911." *"Epocas" Segunda Era* Diciembre: 8-9.

Herre, E. Allen, Machado, Carlos A., Bermingham, Eldredge, Nason, J.D., Windsor, Donald M., McCafferty, Shawn, Houten, W. van and Bachmann, K. 1996. "Molecular Phylogenies of Figs and their Pollinator Wasps." *Journal of Biogeography* 23(4): 521-530.