

## Tupper seminar

Tue, Aug 6, noon seminar speaker will be Lawrence Gilbert, visiting scholar from the University of Texas  
**Behavioral and community ecology of fire ants and phorid parasitoids: a basis for biological pest fire ants**

## Bambi seminar

Thursday, August 8, Bambi seminar speaker will be David Logue, Colorado State University  
**Title to be announced**

## Arrivals

Hamilton Farris, University of Texas, Aug 1 - Oct 30, to study the auditory grouping in the tungara frog: the roles of complex call components in "what" and "where" decisions, in Gamboa.

Leo Fleishmann and 11 students from Union College, New York, Aug 1-31, to study habitat light of Panamanian anoline lizards, on BCI, Gamboa and Sherman.

Deron Burkepille, short-term fellow from Georgia Institute of Technology, Aug 1 - Oct 31, to study coral-algal competition: Amelioration by herbivores and effects of allelopathy, on Bocas del Toro.

Emily Moriarity, University of Texas at Austin, Aug 2-15, to conduct a female choice experiment on tungara frogs, in Gamboa.

Heike Prohl, University of Texas at Austin, Aug 1-Sep 30, for a behavioral and genetic study in túngara frogs, at Gamboa.



Smithsonian Tropical Research Institute, Panamá

[www.stri.org](http://www.stri.org)

August 2, 2002

## Rubinoff honored by ATB

The Association for Tropical Biology (ATB) awarded STRI director Ira Rubinoff with a plaque, for his "exceptional service in the field of tropical biology and conservation" for more than three decades, on Wednesday, July 30, at El Panamá Hotel. This is the first time the ATB awards this recognition. Rubinoff became director of STRI in 1974, and under his leadership STRI has developed into a world leading research center with facilities thought Panama and the world. In Panama, he has received a number of awards, including the Orden Vasco Núñez de Balboa. Rubinoff returns to STRI from sabbatical in Washington DC, on Thursday, August 22. In the photo, ATB president Nalini Nadkarni presents the award. (See Rubinoff's welcoming remarks at the end of *STRnews*)



La Asociación de Biología Tropical (ATB) otorgó una placa de reconocimiento al director de STRI, Ira Rubinoff, "por sus excepcionales servicios en los campos de biología tropical y conservación" por más de tres décadas, el miércoles 30 de julio en el Hotel El Panamá. Esta es la primera vez que la ATB hace esta distinción. Rubinoff asumió la dirección de STRI en 1974, y bajo su liderazgo, STRI se ha convertido en un centro de investigación líder en el mundo, con instalaciones en diferentes puntos del trópico. En Panamá, ha recido un número plural de distinciones, incluyendo la Orden Vasco Núñez de Balboa. Rubinoff regresa a STRI luego de un año sabático en Washington DC, el jueves, 22 de agosto. En la foto, la presidenta de ATB Nalini Nadkarni hace entrega de la placa. (Vea los comentarios de bienvenida de Rubinoff al final en inglés. La traducción al español se publicará la próxima semana)



## ATB meetings held in Panama

Six hundred tropical biologists from more than 60 countries met in Panama for the Association for Tropical Biology (ATB) annual conference in Hotel El Panamá from Monday, July 29 - Friday, August 2. The conference, "Tropical forests: Past, present, future" organized by STRI acting deputy director S. Joseph Wright attracted not only scientists from around the globe, but regional and international journalists looking for the latest development in forest management and conservation. The meetings, with 22 symposia and 453

presentations reviewed themes from tropical paleoclimates, prehistoric human population density and their impact on tropical vegetation, forest fragmentation and carbon balance and a wide range of additional topics of broad interest to ATB members.



## More arrivals

Sylvia Fallon, predoctoral fellow from the University of Missouri at St. Louis, Aug 1 - Mar 11, 2003, to study historical biogeography and community ecology of avian malaria in the Lesser Antiles, at Naos.

Andy Jones, University of Georgia, Aug 1-May, 2005, to conduct theoretical and empirical studies of seed and pollen dispersal, on BCI.

Sarah Godsey, graduate student fellow from the University of Cincinnati, Aug 2 - Oct 11, to study runoff regeneration on BCI.

Michael Roy, University of Otago, New Zealand, Aug 2 - Jan 2, 2003, to collaborate with Haris Lessios on the project: Population structure and invasion history of *Ophiactis savignyi*, at Naos.

Edmund Tanner, Mellon fellow from the University of Cambridge, UK, Aug 2-22, to work on the importance of leaves produced in the shade to tree seedlings moved from shade to small gap light regimes, on BCI and Gigante.

## Departures

Rachel Collin, Aug 6-30, to Chile, to collaborate with colleagues on studies of Chilean Fissurellio limpers.

Rick Condit, Aug 4-28, to Tucson, AZ, to attend the meetings of the Ecological Society of America.

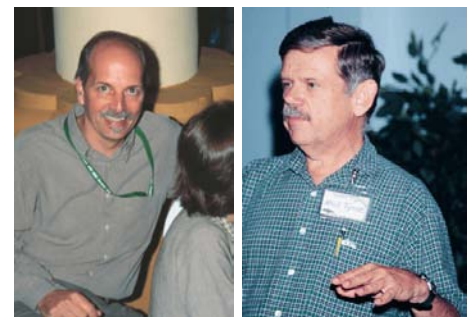
Joe Wright, Aug 3-11, to Philadelphia, on OTRAT.

There was also a wide participation through contributing oral and poster presentations. STRI support staff, under the supervision of Tupper Center manager Audrey Smith, coordinated the event. Daily updates are being posted in EurekaAlert! and STRI webpages.

El martes 29 de julio, 600 biólogos tropicales provenientes de 60 países llegaron a la reunión anual de la Asociación de Biología Tropical (ATB) en el Hotel El Panamá de esta ciudad. La conferencia, “Bosques tropicales: pasado, presente, futuro”, organizado por S. Joseph Wright, subdirector encargado de STRI, no sólo ha reunido científicos de todas partes del mundo, sino también periodistas locales e internacionales interesados en las últimas noticias en manejo de bosques y conservación. El congreso, con 22 simposios y 453 presentaciones revisó temas desde los climas paleontológicos, la densidad de las poblaciones humanas prehistóricas y su impacto en la vegetación tropical, fragmentación de bosques y el balance del carbono, así como una amplia variedad de otros tópicos de interés para los miembros de ATB. También hubo una gran participación a través de presentaciones orales y de afiches. Miembros del personal de STRI bajo la supervisión de la administradora del Centro Tupper, Audrey Smith, coordinaron el evento. Noticias nuevas sobre el congreso están apareciendo diariamente en las páginas de web de EurekaAlert! y STRI.



*Elisabeth Kalko*



*Phillip D'Vries*

*Melvin Tyree*



*Audrey Smith and assistants Marcela Paz and Jeannette Eager*

## Tropical forests under surveillance

STRI hosted a Workshop on Tropical Biology and Technology, on Monday, July 29, at Hotel El Panamá. According to the symposium organizer, Julio Escobar, president of Centauri Technologies Corporation, field biologists may be unaware of the latest technological innovations as they plan research strategies, or may be unable to afford novel equipment.

Furthermore, new technologies designed for commercial purposes may not easily lend themselves to biological applications. Advanced sensor technologies in concert with modern communications platforms will be vastly more useful to researchers if they are intentionally designed to monitor tropical environment where a huge variety of organisms interact.

Participants to the workshop developed a “wish list” of questions to be answered if the appropriate technology were available. Roland Kays of the New York State Museum considers that the first challenge to an understanding of animal behavior in the tropics is the ability to find the same animal several times in order to make multiple observations. High-quality sound recordings, automated analyses of sound sequences and radio-transmitters with ultrasound sensors were on the wish list. William Eberhard dreams of tiny surveillance cameras, chemical sensors and x-ray like technology to enable him to watch the intimate interactions of spiders, beetles, birds and bees. William Laurance needs to link information available at very large scales with local land-use information.

Dennis Shaw, Chief Information officer at the Smithsonian Institution, discussed the current capability of telecommunications systems at STRI to support scientific research. SI has placed new emphasis on updating computing and telephone systems to connect remote field sites and facilitate access to the most recent data generated by researchers. STRI is committed to pushing the development of new technologies for improving understanding and conservation of tropical organisms and communities. [For the complete story, see eurekaalert.org under Technology.]

# Welcoming remarks by STRI director *Ira Rubinoff* to the participants of the Annual Conference of the Association for Tropical Biology, Panama

Wednesday, July 30, at El Panamá Hotel

On behalf of my colleagues at STRI it is my pleasure to formally welcome you to Panama, and to STRI for this conference, “Tropical forests: Past, present, and future”. This conference also serves as the annual meeting of the Association of Tropical Biology, which in this instance, is being cosponsored by the Organization of Tropical Studies as well as by STRI and its Center for Tropical Forest Science.

We are meeting in Panama on the eve of its centenary as a nation. The foundation of Panama as an independent republic in 1903 provided the opportunity not only to construct an inter-oceanic canal, but it also laid the groundwork for the development of research endeavors based upon its unique geography. Since that time, Panama has been a cross-road for commerce as well as for tropical research. It has contributed significantly to what we understand about the evolution of biological diversity, the mechanisms for the interactions of life in the tropics, and hopefully, at least a start in our ability to predict the future status of the diversity of life on the planet.

We have come a long way in tropical biology. However, when you consider the significance of tropical biology and this audience—which clearly does understand the significance of the tropics—then the only conclusion I can draw is that, as a group, biologists have failed to persuade society of the importance of our work so as to garner the financial support commensurate with this importance.

In 1988 Robert May, now Lord May, published an article in *Nature* entitled “How many species are there on Earth? He pointed out that less than 2 million species have been classified and that there was a good deal of uncertainty about how many more species inhabited the planet with us. There was no single catalog of those species already classified, although one existed for the several million books in the Library of Congress. He went on to say that a catalog of information about the habitat, distribution and abundance of the known species, all the information collected with the specimens, would not be less important than the human genome project.

Although a number of proposals for large-scale inventories have been proposed, [summarized in *Nature* on July 25] fourteen years later, we are still debating the numbers of species, and we are far from increasing our capacity to classify new ones. Certainly I am unaware of comprehensive programs to train new taxonomists, and if my colleagues are any indication—the current group is getting rather long in tooth.

The loss of habitats and extinctions of species continue as our numbers climb from their current 6 billion, at least a quarter of which are living at what the World Bank defines as absolute poverty, or less than \$1/day. And we are struggling both scientifically and politically to determine how the enormous developments associated with this magnitude of human activity are changing the planet and the biological systems that keep us alive.

Many have called for more programs to encourage people to think about the non-sustainable use of the earth’s resources. As Peter Raven put it so well in a recent talk to the Association of Zoo and Aquariums:

“We need to help build conservation and educational capacity in countries around the world...Conservation will be practiced in countries around the world only when there are enough citizens of those countries who can advise their governments accurately about the importance of both conservation and sustainable development, and who understand the linkages between the two.”

He went on to point out that only one in ten of the world’s scientists and engineers live in developing countries which have about 80% of the human population and an equivalent amount of the world’s biological diversity. “Most of these (scientists) are concentrated in Mexico, Brazil, India and China, so that more than 150 countries, a great majority of all the member states of the United Nations, have virtually no scientists or engineers active in the scientific or technical fields.” “Partnerships are of enormous

importance in encouraging development in this area, lasting partnerships based upon mutual respect—and there is much that zoos, botanical gardens, aquaria, and natural history museums can do in this area.”

I would add that there is much more that the developed world’s universities such as those in the United States, Europe and Japan can do in building genuine partnerships with developing world institutions. This must include a good deal more than just training—we need to think about brick’s and mortar, joint programs for long-term ecological research, modern laboratories where research can be conducted in partnerships that will address concerns about intellectual and genetic property rights. Institutions to provide jobs for developing world scientists and engineers to continue their research. Modern communication and information technology make the successful pursuit of world-class research feasible in what has hitherto been considered remote areas. All that is necessary is money.

So as tropical scientists, most of whom work from a University base, I suggest that part of the solution to our problem lies with our chairpersons, deans, provosts, chancellors and presidents. Our universities have an extended role to play beyond Berkeley, Austin, the Cambridges or Tokyo. If we believe that sound conservation policy requires a scientific base as well as an educated public and a political will then we must work to broaden our research base.

The developed world provided leadership in the industrial age, the atomic age, the space age, the information age and the molecular age. As a group we must do all that is possible to insure that the beginning of this century is labeled the “age of biodiversity”. And this is one age that cannot be led by the developed world in isolation from the developing world.

Thank you.