

STRI newsletter

May 15, 1992

SMITHSONIAN TROPICAL RESEARCH INSTITUTE - Apartado 2072, Balboa, Panama

No. 20

TUPPER CENTER SEMINARS

Tuesday, May 19, noon seminar speaker will be Astrid Caldas, Univ. de Estado do Rio de Janeiro.

Natural regulators of tropical butterfly densities

Abstract

Tropical insect populations tend to be influenced by rainfall seasonality. In environments where rainfall is predictable and constant during a certain "season", other factors may assume a higher importance in the regulation of population density. In Campinas, Brazil, there is a marked dry season from August to November; after that, heavy rains occur in an irregular pattern, being responsible for a high mortality of *Anaea ryphea*, leaving parasitism in a secondary place. In Panama, there is also a dry season, but heavy rain occurs almost daily during the wet season; therefore, population levels are kept constant and low, allowing parasites and other factors to play the main role in the variation of *Anaea ryphea* density in the field.

Next Week

The noon seminar speaker for Tuesday, May 26, will be Thelma Rowell, University of California at Berkeley. Title to be announced.

PEOPLE

Arrivals

- Shigeru Sumoda, Tokyo University, May 19-Jun 2, to collaborate with Robert Dudley on butterfly migration studies on BCI.
- Evandro de Oliveira, University of Texas, May 20-Jun 20, to work on directionality and orientation of migratory butterflies across Gatun Lake.

Departures

- Vielka Chang-Yau, STRI chief librarian, May 18-24, to Trinidad and Tobago to attend the 22nd Annual Conference of the Caribbean Association of University, Research and Institutional Libraries.



On May 7, during the STRI/University of Panama Gigante field course, which took place from May 3-10, several students from the University of Panama received instruction from David Roubik (left) on field techniques. The same day, a second group of students worked with Stanley Rand. Other invited speakers of the course were John Tobin, Noris Salazar, Donald Windsor and Robert Dudley ••• El 7 de mayo, durante el curso de campo que se llevó a cabo del 3 al 10 de mayo, varios estudiantes de la Universidad de Panamá recibieron instrucciones de David Roubik (a la izquierda) sobre técnicas en el campo. El mismo día, un segundo grupo de estudiantes trabajaron con Stanley Rand. Otros conferencistas invitados fueron John Tobin, Noris Salazar, Donald Windsor y Robert Dudley. (Foto: M.A. Guerra)

New Smithsonian Under Secretary Appointed

Smithsonian Secretary Robert MaC. Adams announced on May 14 that he has appointed Constance Berry Newman, director of the U.S. Office of Personnel Management, as under secretary of the Smithsonian, effective in July.

As under secretary, Newman will be the second ranking official at the Smithsonian and will be responsible for the day-to-day operations. She replaces Carmen E. Turner who died on April 9.

Newman, 56, received a bachelor of arts degree from Bates College in Lewiston, Maine, and bachelor of science in law degree from the University of Minnesota Law School. Her distinguished career in both the public and private sectors spans some 30 years and includes areas such as housing and urban development issues, restructuring public and private organizations, personnel and regulatory policies, and general administration and management.

Thank You and Hasta Pronto

by Mercedes Arroyo

A diligent lady was integrated to our Procurement Department 2 years ago. Her name: Lidia Mann. Industrious, efficient and responsible are the words that describe her work at STRI since the first day of her hiring. Due to circumstances beyond our control, today is her last working day at STRI. An enormous loss for our Procurement Department. A great loss for all STRI. All her co-worker and friends wish Lidia, not only the best of luck but an *Hasta Pronto*. As her supervisor and on behalf of STRI we wish to thank Lidia and commend her for her dedication and hard work. We'll keep fingers crossed so that someday, not too far away, STRI can regain her expert services.

THINGS YOU SHOULD KNOW**Another Tree Added to the Flora of BCI**

Marielos Peña, STRI intern from Bolivia, this week discovered a tree species new to Barro Colorado Island in one of the 20 x 20 meter plots she has put around the island. The tree is *Crataeva tapia* in the Capparidaceae or caper family. It is called "estrella" in Chiriqui and known as "garlic pear tree" in Jamaica because of a fetid garlic odor. It is not unexpected since it is occasional in lowland wet habitats throughout the Neotropics. The same small plot also had two other rare BCI plants: *Castilla elastica* and *Coccoloba acapulcense*.

Request from INRENARE**Solicitud de IN.RE.NA.RE.**

IN.RE.NA.RE. has asked our cooperation in reporting anything unusual you may encounter during your field work, like poachers, squatters, burning of forests, etc. This feedback will help them keep a closer surveillance of the wildlife. You may report it through Maria Morello, Visitor Services Office, Tupper or directly to IN.RE.NA.RE. at Tel. 32-4325 Paraiso, 56-6370 Gamboa ••• *El IN.RE.NA.RE ha solicitado nuestra cooperación en reportar cualquier anomalía que pudiese encontrar durante su trabajo en el campo, como cazadores, precaristas, quema de bosque, etc. Esta información los ayudará a mantener una mejor vigilancia de la fauna y flora silvestre. Usted puede reportar el incidente por medio de María Morello, Oficina de Visitantes, Tupper, o directamente al IN.RE.NA.RE., Tel: 32-4325 en Paraiso y 56-6370 en Gamboa.*

Departamento de Compras

Roberto Borrell, encargado del *Storeroom* del Departamento de Compras, se reintegró a sus labores el martes 12 de mayo.

Volunteers Available

The Office of Education has received several applications from students (high school and university) who wish to volunteer at STRI from June-August 1992. Offices needing volunteers are asked to send a brief description of the job that the potential candidate will be performing. STRI volunteers take part in the Smithsonian Behind the Scenes Voluntary Program and receive certification if they work for more than one month.

ANNOUNCEMENTS**New Employee**

Aurelio Virgo has been selected for a full-time, permanent position in Klaus Winter's lab, beginning May 18. Dr. Virgo obtained a six-year fellowship for his Ph.D. studies in Montpellier, France, where he received his doctorate in plant physiology in 1991. Previous to that, he had received a 1984 STRI Exxon Fellowship, and worked at the University of Panama and on Barro Colorado Island as a botany assistant.

Needed•••Se Busca

Official translators with experience in legal terminology (i.e. laws and agreements) for occasional translations from Spanish to English. If interested, send one-page CV to Celideth Mendoza, Office of External Affairs ••• *Traductores Públicos Oficiales con experiencia en terminología legal, tal como convenios y leyes, para traducciones ocasionales del español al inglés. Los interesados favor enviar CV de una página a Celideth Mendoza, Oficina de Asuntos Externos.*

Se Vende

TOYOTA Celica GT 1979, 2 puertas, a/a, 5-vel, 4 cil, impuestos pagos, overhaul, excelente condición, \$2500 O.M.O. Steve Paton 60-7849 ó 52-5539.

SYMPOSIUM**Migratory Bird Center Symposium**

The Smithsonian Migratory Bird Center is now accepting applications for posters to be included in a symposium entitled "Forest Remnants in the Tropical Landscape: Benefits and Policy Implications" to be held on September 10 and 11, 1992, at the National Zoo in Washington, D.C. The symposium is directed towards ecologists, tropical conservationists, land-use policy specialists, and grassroots rural development organizers, focusing on the ecological and social benefits of forest remnants in the conservation of biological diversity and steps that can be taken to promote their wise management. To be considered for a space in the program, send application form and a one-page abstract to Jaime K. Doyle, SMBC, National Zoo, Washington, DC 20009. Deadline for applications is June 15, 1992.

EDUCATION UPDATE

Exxon Fellowship and Assistantship Program

by Gretchen Sotomayor

Where are Exxon fellows today?

Between 1976 and 1990, 380 students participated in the Exxon Corporation's assistantship and fellowship programs at STRI.

As of 1990, according to STRI records, 40 former fellows were employed in a university teaching or research position, 56 were working in natural resources management and conservation, 28 worked with private industry or as high school teachers, and 35 were candidates for a doctorate or master's degree in North American or European schools.

Many of those who participated in Exxon programs at STRI recently said they plan to eventually return to their countries to teach, conduct research or work in a conservation or natural resources related position.

More than 30 former Panamanian fellows are active in either teaching, research or conservation positions. Six are working with Panama's local conservation organization, ANCON; five are professors at the University of Panama and one is teaching school in the Darien. Alumni also include Dr. Roberto Ibañez, who collaborates with STRI in his research; Gustavo Justine, assistant director of marine resources in Panama, and Daniel Holness, administrator of Metropolitan Natural Park. STRI also employs more than a dozen former fellows as research assistants, program coordinators and game wardens.

In Colombia, Sandra Patiño read the books written by famous scientists and studied their work, but she didn't know that she might one day meet them. In Bolivia, Marielos Peña held an undergraduate degree as her country's only plant ecologist, but she wanted more education and the chance to learn pertinent skills, including methods for identifying plants in her country. And in Panama, Omar Lopez was looking for experience from a facility supporting scientific research. He had big plans, and they included going to the United States for graduate study.

What all of these promising scientists needed, they found through unique programs that introduce Latin American students to the scientific world via the Smithsonian Tropical Research Institute (STRI). The program that reaches the greatest number of students is the Exxon Fellowship and Assistantship Program at STRI. Funded largely by Exxon Corporation through the years, some 400 students have cycled through the program since its beginnings 16 years ago.



Sandra Patiño, Colombia

Patiño, Peña and Lopez were among more than a dozen young scientists who recently spent three months at STRI in Panama City working with staff scientists. The students either designed their own research project with guidance from a staff scientist or aided a scientist with his or her research. For many fellows, it was their first trip out of their own country. At STRI, they gained research experience,

made contacts, acquired references for graduate school and learned to use sophisticated equipment systems. "The program's real value is that it provides a push—an intellectual stepping stone—between an undergraduate program and graduate school," said Georgina de Alba, director of STRI's Office of Education.

Of the students who have participated in the program since 1976, many of them are from the Republic of Panama, although other countries have become more involved in recent years through efforts to expand the program regionally, de Alba said.

"There aren't many other programs like this for Latin Americans," de Alba said. Indeed, many former fellows say that they probably wouldn't have attained such an advanced education without experience gained from the Exxon program.

"STRI is a stepping stone toward other possibilities," said Luis Anibal Solorzano of Colombia. "I found my path to follow—that's very important."

Solorzano entered the Exxon fellowship program in early 1990 with an interest in landscape ecology, but information on this subject was scarce in Colombia. By the time he had completed the three-month fellowship at STRI, with the aid of library resources and scientific contacts, he was knowledgeable about landscape ecology and conferring with experts in the field, Solorzano said. Currently, he is working as a research assistant at STRI while awaiting word on an application for graduate school in England to study landscape ecology.

For Brazilian Marcelo Schlindwein, his experience at STRI not only



Omar López (right), Panamá



Robin Foster (STRI) and Marielos Peña, Bolivia

resulted in his first trip out of South America, but it was also his first opportunity to conduct his own research. He spent the first three months of 1992 at STRI observing the activities of two species of leaf-cutter ants in Panama, with plans to compare these findings with research of five species of ants in Brazil. The project is the focus of his doctoral dissertation.

"At STRI, I had total freedom to work," Schlindwein said. "It's the first chance I've had to work on my own ideas."

Exxon fellow Sandra Patiño said she found a new direction in her life at STRI this year.

"Now I know what I want to study," she said. "A year ago, I didn't know." Patiño will pursue plant physiology, with an emphasis in ecology, and after graduate school, she plans to return to her country to use her skills toward its improvement.

Many former Exxon fellows are doing exactly that. One former participant of several STRI programs is biology professor Dr. Jaime Cavelier, who teaches at the University of the Andes in Bogota, Colombia.

"For me, (STRI) has been absolutely critical," Cavelier said during a recent visit to STRI.

Following his first fellowship at STRI, Cavelier attended school in England, earned a doctorate degree and then returned to STRI again as a fellow before moving back to Colombia to teach and conduct research. About a dozen of his students have participated in the Exxon program, and many are now enrolled in graduate school in England and the United States.

"Exxon's support through the years has been invaluable," de Alba agreed. "But we realize that to expand the program, we may need to diversify funding sources." STRI has already contacted other philanthropic and

funding organizations, and did receive some financial support this year from the United States Forest Service, de Alba said. Bolivian Marielos Peña was one of the interns funded by the forest service.

Most fellows and scientific advisors agree that the Exxon program, or an analogous one, needs to be expanded—not reduced.

"I work all over South America and I see the other end of things. I see how badly this kind of training is needed for people," said Robin Foster, a plant community ecologist at STRI.

Foster worked with Peña this year, teaching the young scientist how to rapidly identify plants and establish a plant sampling system. She will be working with a conservation group in her country to establish forest reserves larger than the Republic of Panama, Foster said. Because of the demands on Peña's time, she probably will have to chart a great deal of the plant life from an airplane, he said.

"Everything here is an eye opener... and (the fellows) can go back with ideas of how to make things better in their country," Foster said.

In the three years he's conducted research in Panama, Dr. Stephen Emlen has worked with Exxon fellows for the last two years, most recently with Argentinian Manuel Demarias. The two were well-matched because both are studying shorebirds that exhibit male parental care of offspring, Emlen said. The experience should prove useful for Demarias' future research in Argentina, he said.

Before starting his project in Panama, Emlen spent eight years in Kenya and other East African countries as a scientist—and from these experiences, he became acutely aware of the imbalance of knowledge and training throughout the world, he said. Though not all may agree with him, Emlen believes that scientists working in foreign countries should contribute to the training and education of people in their host country.

"There is an incredible need for sophisticated, trained scientists in these countries... people who can serve as the experts—educating and making the decisions," Emlen said.

Mireya Correa, a STRI scientist and botany professor at the University of Panama, has recommended many students for the Exxon programs at STRI. Two of her former students, and also former fellows, are now pursuing doctorate degrees in botany in the United States.

Through the Exxon programs at STRI, the students not only learn proper methods of research and meet scientists, but they acquire a new sense of respect for their work, Correa said.

"They acquire a responsibility that they didn't have before. I see a change in attitude," she said.

Omar Lopez, who is studying botany at the University of Panama, said he is fortunate to have found the Exxon program, but is bothered that more of his fellow students aren't participating—either from lack of awareness or motivation. Lopez applauds the working relationship that exists between STRI and university professors, and hopes that it will be strengthened and expanded.

"It's a great opportunity to practice English and meet people from all over," Lopez said. "I learned a lot about the world without ever leaving my country" ♦



Ricardo Thompson briefs Exxon fellows on Galeta marine projects during an extension program.