

# STRI newsletter

November 27, 1991

SMITHSONIAN TROPICAL RESEARCH INSTITUTE - Apartado 2072, Balboa, Panama

No. 48

## TUPPER CENTER SEMINARS

Tuesday, Dec. 3, noon seminar speaker will be Scott Armbruster, University of Alaska.

*Pollination ecology and assemblage structure in Australian trigger plants: are there rules?*

### Abstract

*Stylidium* (Stylidiaceae), a large genus of flowering plants endemic to Australasia, is known for its unusual method of "explosive" pollen placement and capture; the long gyno-staminal column rapidly changes from a reflexed to extended position in response to a nectar-seeking bee or fly touching the sensitive trigger point. This movement, possibly the fastest in the plant kingdom, catches the pollinator unawares, either forcibly placing pollen on, or picking it up from the pollinator's body. Variation in the position and length of the column causes variation in where pollen is placed on the pollinator's body. Variation in the length of the nectar tube affects which insect species can visit and successfully forage nectar from the flowers. We studied the pollination and floral morphology of 32 species of *Stylidium* in 25 sites in southwestern Australia, where 2-6 species commonly occur sympatrically. We addressed the question: Are there any rules that govern which species occur sympatrically? Do those that occur sympatrically tend to place pollen in the same place on the same insects (thereby experiencing interspecific pollination) less often than can be explained by chance? The answer appears to be yes.

### Next Week

Tuesday, Dec 10, noon seminar speaker will be Oris Sanjur, Universidad de Panama.

*Estudio del cariotipo de cuatro especies de Pomacéntridos del Pacífico de Panamá*



On Nov 22, students from the Japanese School, accompanied by their teacher and Arcadio Rodaniche, visited the aquaria at Naos and the beach at Culebra Point. They also visited the Tupper Center with volunteer docent Jorge Silva, and viewed the insect collection with Koji Nakamura ••• El 22 de noviembre, estudiantes de la Escuela Japonesa, acompañados por su maestra y Arcadio Rodaniche, visitaron los acuarios de Naos y la playa de Punta Culebra. También visitaron el Centro Tupper guiados por Jorge Silva, docente voluntario, y conocieron la colección de insectos con Koji Nakamura.

(Foto: M.A. Guerra)

## BAMBI SEMINAR

Due to the effects of the El Niño, Scott Armbruster's seminar arrived earlier than expected. A splendid time was had by all. The Dec 5 seminar speaker will be Gregory Gilbert.

*Tree diseases and forest dynamics: the first steps*  
Call Vielka Liao on BCI to arrange transportation.

## PEOPLE

### Arrivals

- Ardelle Foss, director, SI Office of Sponsored Projects, Dec 1-8, with husband, John Rickey, to visit STRI facilities and consult with staff (see page 4).
- Oldrich Nedved, Czechoslovakia Academy of Sciences, Dec 1-Feb 29, to work on diapause in *Stenotarsus rotundus* (Coleoptera: Endomychidae): super-cooling ability and importance of aggregation on BCI.
- Gregory Dicom, Princeton Univ, Dec 1-31, to work on canopy census training on BCI.
- Dieter Ebert, Univ. of Basel, Dec 2-Feb 29, to work on division of labor in the social spider *Anelosimus eximius* at Gamboa.
- James Hamrick, Univ. of Georgia and Karen Hamrick, Dec 3-17, to work on causes of genetic structure in tropical tree populations.