TUPPER CENTER SEMINARS
No noon seminar scheduled for Tuesday, November 17.

Staff Evening Seminar
On Tuesday, Nov 17, staff seminar speaker will be Anthony Coates, STRI, at 5:30pm.

Geological Constraints on the Palaeography of the Isthmus of Panama.

Abstract
STRI is the home base for an international project informally named the Panama Palaeontological Project (PPP), involving 8 core scientists. Funded by NSF, the National Geographic and the Swiss NSF since 1986, PPP seeks to trace the geologic history of the rise of the Isthmus of Panama through a detailed study of the sediments and their fossil faunas that have been deposited over the last 10 million years on the Caribbean and Pacific sides of the Isthmus of Panama. The Isthmus began to influence the physical and biological characteristics of the unified Pacific-Caribbean ocean several million years before closing. The separation of the two oceanic systems had profound biological consequences but they happened over a period of millions of years and differed markedly between major taxa. In this, the first of two lectures, Tony Coates will outline the current geological evidence for the causes and timing of the rise and closure of the Isthmus and how sediments on each side are correlated in time; in the second talk, Jeremy Jackson will discuss some of the surprising biological patterns that the first 6 years of the PPP has unearthed.

Behavior Discussion Group
The BDG will meet on Tuesday, Nov 17, 12m to 2pm at the Tupper Center Meeting Room. Cathie Robb will host a discussion on:

The Energetics of Courtship Display
Copies of two articles recommended for prior reading along with questions for discussion will be available on BCI (Lounge), Gamboa, Tupper (Lounge), and at Naos. For more information, call Ursula Schober at Naos. Any person interested in ordering a sub-sandwich to eat during the meeting should call no later than Monday, Nov 16.

Jeremy Jackson, STRI, explains his research on bryozoan reproduction to Victoria Figge, president of the Association of Panamanian Business Executives (APEDE), and members of APEDE’s Board of Directors, who accompanied by their families visited the Naos Laboratories and Culebra Marine Reserve on Nov 7...Jeremy Jackson, del STRI, explica a Victoria Figge, presidenta de la Asociación Panameña de Ejecutivos de Empresas (APEDE), sus investigaciones sobre reproducción de briózoarios, así como a otros miembros del directorio del APEDE, quienes visitaron, junto con sus familiares, los Laboratorios de Naos y la Reserva Marína de Culebra el sábado 7 de noviembre.

PEOPLE

Arrivals
- Paulo de Oliveira, postdoctoral fellow, Ohio State University, to work with Paul Collinvaux on paleoecological studies on the New World tropics, in particular the Amazon basin.

On Leave

Agradecimiento
Jorge Ventocilla, de la Oficina de Educación, desea agradecer a todas aquellas personas del STRI, que colaboraron para que las fiestas del 3 de noviembre en Las Payas, fueran todo un éxito. Una delegación de BCI, así como del Centro Tupper, asistieron a las festividades. La comunidad de las Payas manifestó, en repetidas ocasiones, su complacencia por la presencia de los invitados en esta celebración que ellos mismos calificaron como una oportunidad para ser más amigos y mejores vecinos (ver foto en página 4).
ANNOUNCEMENTS

Missing Box ••• Caja Perdida
Please help us find a large cardboard box that was sent by certified mail from William Eberhard in Costa Rica, to David Zeh at STRI. Although the box was signed out at Albrook by the STRI messenger on Sep 21, it has still not been delivered to Gamboa Bldg. 183 where David containers, each of which is dressed to David Zeh. Inside are three plastic half gallon containers, each of which is full of plastic bags containing beetle larvae and adults in alcohol. The box may still be searched for the above mentioned box and contact procurement if you have any information about it ••• Se solicita ayuda para localizar una caja grande, de cartón enviada por William Eberhard, correo certificado desde Costa Rica, a David Zeh en STRI. Aunque la caja fue retirada por un mensajero de STRI en Albrook el 21 de septiembre, ésta no ha llegado al edificio 183 de Gamboa donde David Zeh recibe su correo. La caja pesada, de 2½ x 1 x 1½ pies, sellada con cinta adhesiva color café dirigida a David Zeh. Contiene 3 contenedores plásticos de ½ galón con escarabajos en alcohol. La caja puede tener aún la etiqueta certificada P693-708-913. Se agradecerá que la busquen en sus laboratorios y avisen al departamento de compras (Procurement) si tiene información sobre el particular.

At Tupper Center
Tue, Nov 17 Scientific Staff Meeting, 9:30am-12noon, Large Meeting Room.
Behavioral Discussion Group Meeting, 12-2pm, Large Meeting Room.
Wed, Nov 18 Conversations at the Smithsonian. DoDD's Teachers Program, 3-5pm at the Auditorium and Exhibit Hall.

Apartment for Rent
2 bedrooms, balcony, good location. Completely furnished. $450. If interested, please contact Hely Andrade.

POSITION AVAILABLE

Molecular Evolution Multi-User Laboratories Manager
STRI seeks a manager for the multi-user laboratories associated with the molecular evolution program, beginning 1 January 1993. M.S. degree is required, plus either specialized experience or directly related education, substantial experience in laboratory administration, radiation safety, and in research using a variety of taxonomic groups, molecular techniques and methods of data analysis. Must train and collaborate with visitors and resident staff varying widely in scientific and linguistic background. The successful candidate will be a federal employee (GS-11) and part of an established program whose purpose is to bring modern biochemical methods to the study of diverse tropical biotas. Send curriculum vitae and three confidential letters of recommendation to: Personnel Management Specialist, Smithsonian Tropical Research Institute, P.O. Box 3353, Balboa, Republic of Panama. Review of applications will begin 1 December 1992 and continue until position is filled. Equal Opportunity Employer, Employment not limited to U.S. citizens.

TRAINING OPPORTUNITY

Harbor Branch Oceanographic Institution, Inc. will offer an intensive course in Tropical Marine Botany during the upcoming winter break period, Jan 6-19. Dennis Hanisak, the course director, is recognized expert on the algae and seagrasses of South Florida, and is an adjunct faculty member at the Florida Institute of Technology. The course will include lecture and lab work based at Harbor Branch's newly constructed and well equipped education facility. Field work will focus on the Indian River and the Florida Keys.

The cost for instruction is $800. Inexpensive ($8.00 per night) dormitory-style housing with kitchens equipped for basic cooking is available, or housing off campus can be arranged. The campus cafeteria is open Monday-Friday, serving breakfast and lunch at reasonable prices. Limited financial aid will be available. To apply, send: a letter of application containing your name, address, phone number and a statement of how much your can contribute toward course costs (if seeking scholarship assistance).

FROM OTHER SOURCES

Children's Coloring Book Helps Preserve Kuna Traditions by William G. Schulz Smithsonian News Service

Panama City—Jorge Ventocilla had a promise to keep. For research toward his master's degree, he had lived and worked among the Kuna Indians of Panama. To do so, he had secured permission from the community elders. In exchange, he had promised that he would
return someday and share the information in an effort to help preserve Kuna cultural traditions.

That day has arrived. Ventocilla—an environmental specialist at the Smithsonian Tropical Research Institute in Panama—recently delivered thousands of copies of a new coloring book to Kuna communities in the San Blas Islands, an archipelago that stretches along the Caribbean coast almost to the Colombian border.

The Kuna are delighted, Ventocilla says. The coloring books, of course, are meant for children—cherished in Kuna society—who will soon be the next generation responsible for keeping their culture alive. At a time of increasing outside influence on the Kuna way of life, Ventocilla says, educating Kuna children about their culture has become a paramount task.

Visitors to Panama—military personnel, people on cruise ships passing through the canal and business travelers—have become familiar with the Kuna Indians. Fiercely independent, they govern Kuna Yala, their territory inside Panama, and seldom marry non-Kuna people.

More recently, the Kuna have been admired worldwide for ancient hunting and farming techniques that preserve the forests. They eschew the destructive slash-and-burn agriculture that typifies most tropical countries, including Panama.

In their colorful native dress, the Kuna are easily spotted amid the bustle of Panama City. In many locations, Kuna women sell traditional craft items, such as their famous “molas,” reverse applique embroidery which depict animals, people or aspects of Kuna life.

Their original homelands are thought to be villages in the dense tropical forest of Panama’s Darien Province, near the present border with Colombia. But in the past century, the Kuna began moving to the San Blas, a move remembered and talked about by some of the oldest Kuna people.

For his study of hunting and subsistence agriculture, Ventocilla chose Cangandi, a mainland village. The Kuna hunt in the mainland where wildlife is abundant, he explains, as opposed to the island villages where food and fresh water are brought in or where people fish for sustenance.

Situated on a plateau, Cangandi is not an isolated village. “They are so close to Panama City, but the Kuna are very different, culturally,” Ventocilla says.

Still, Kuna cultural traditions are not immune to outside influence. The realities of the modern world have meant a shift away traditional forest hunting and agriculture toward a market economy.

Religious missionaries have also played a role. Many Kuna profess Catholicism, Ventocilla says, while adhering to their traditional beliefs. But in the 1980s, evangelical Christian missionaries added to the mix of influences, visiting the Kuna as part of broad campaigns throughout Central America.

In Cangandi, in addition to his thesis research, Ventocilla taught about the environment—including traditional Kuna beliefs—at a small school for children. There are no non-Kuna people in Cangandi, Ventocilla says, and only about 10 percent of the people speak Spanish. A Kuna forest technician, Rutiklo Paredes, helped Ventocilla with translation.

Ventocilla taught his students about animals from the viewpoint of Western science as well as the traditional Kuna classifications of the natural world. The Kuna, for example, group animals according to habitat, he says. Thus, animals that live in trees, such as iguanas and monkeys, are one group. Dolphins, fish and ducks—waterborne animals—are another group.

The idea for the coloring book—written in Kuna and Spanish with a glossary—evolved from this classroom work, he says.

Each fold of the book includes a picture of an animal, for coloring, followed by Kuna text. The original drawings were made by Ologuagdi, a Kuna illustrator.
Traditional Kuna names for several animals, such as the large, hoglike tapir, are starting to disappear in the language. As the Kuna have moved toward a cash economy, "kids don't have the same opportunities to learn traditional names or 'natural history,' in general," Ventocilla says.

The text was extensively reviewed, he says, because literal translations into Spanish are not possible. To add to the complication, the Kuna, when describing locations, refer to points where the sun rises, not to compass directions or other, more universal descriptions.

The depiction of the tapir might seem upsetting or inappropriate for some children, Ventocilla says. First, there is a friendly drawing of the animal. On the next page is a drawing and description of how tapir meat is butchered and consumed by the community.

People in the drawings are smiling, Ventocilla explains, because, for the Kuna, there is happiness when wild meat is butchered and shared among members of the community. The market economy in Kuna villages like Cangandi is still very small, he says, and the Kuna maintain strict prohibitions against selling items such as butchered meat, which are shared communally, according to tradition.

Drawings of another animal—the white-lipped peccary, a piglike creature—depict why the Kuna value the forest and how they hunt its resources. About 70 years ago, Ventocilla says, a fruit company abandoned its banana plantation near Cangandi because of poor production. The Kuna first allowed the forest in the plantation to regenerate. Later, peccaries moved in to feed off of the ornamental palms left by the fruit company, an the Kuna began to hunt the peccaries.

Magical or taboo animals are never hunted. The coloring book gives drawings of the kingfisher, for example, and the sloth, which Kuna legend holds was a famous witch doctor at the beginning of time. Even certain trees are taboo, such as some of the tree species inhabited by iguanas—a favorite source of meat.

Pets are depicted in the coloring book, including parakeets and small monkeys. And the book gives an example of the Kuna belief that people, like animals in the forest, must love one another. The illustration is of "gíuli," parrots that live their lives in pairs.

Deer are included because of their association with children. Children, in fact, are sometimes referred to as "goebipi" or little deer. Deer provide a story about birth, Ventocilla says, not unlike the stork in Western culture.

The coloring book illustrates an important Kuna cultural event—the "inna." The inna is four days of feasting and ceremony. Animals and meat preparation play a central role in the celebration. Daughters who are coming of age have their hair cut in traditional fashion, and they are given traditional names. Usually, there is only one inna a year.

So far, about 3,000 copies of the coloring book have been distributed, reaching every Kuna child in the third through sixth grades, Ventocilla says. Color pencils were distributed with copies of the book, and the Tropical Research Institute sponsored a contest for children to send in their drawings. Winning entries were displayed at the institute's Earl S. Tupper Research and Conference Center in Panama City and at Kuna congresses.

The Kuna—young and old—seem to enjoy the coloring book just as they enjoy all books, Ventocilla says. A new edition is being prepared with support from the World Wildlife Fund. "Some of the best libraries in Panama are maintained by the Kuna," he says. "The Kuna take care of books, and they like to read as part of their culture."

One of the best comments he received about the new coloring book and its effectiveness was unspoken, Ventocilla says. He visited Cangandi and a woman showed him the mola she was working on. She lifted the fabric and the pattern revealed an iguana—the same one shown in the coloring book.