

STRI newsletter

March 1, 1991

SMITHSONIAN TROPICAL RESEARCH INSTITUTE - Apartado 2072, Balboa, Panama

No. 9

SEMINARS

Tupper Center Auditorium

Tuesday, March 5, noon seminar speaker will be Augusto César Franco, Instituto Venezolano de Investigaciones Científicas.

Environmental effects on gas exchange and acid accumulation in tropical C₃-CAM trees of the genus Olusia.

Abstract

High levels of variability in gas exchange patterns and organic acid accumulation were found in several species of the genus *Olusia*. Under well-watered conditions low-PAR-grown plants showed only CO₂ evolution during the night, and no daily changes in malate levels. However, acidity levels changed considerably due to nocturnal accumulation of citric acid. High-PAR-grown plants showed nocturnal net CO₂ uptake, malate and citrate accumulation. However, most the CO₂ fixed at night came from respiratory CO₂. Nighttime CO₂ uptake was readily observed for low-PAR-grown plants when they were either transferred to high light conditions, or submitted to water stress or to large variations in day/night temperatures. For high-PAR-grown plants, prolonged drought lead to decreases in nighttime accumulation of malate, but not of citrate. It is suggested that citrate decarboxylation during the light period may contribute to alleviate photoinhibition, while malate accumulation increases water use efficiency and recovers respiratory CO₂.

Next Week

Tuesday, March 12, noon seminar speaker will be Lawrence Slobodkin. Title to be announced.

PEOPLE

Arrivals

- Mar 2-4, Group from the Organization for Tropical Studies will visit BCI: Ellen Andresen, Orlando Delgado, Santiago Carrizosa, Nancy Sierra, Margarita Nuñez, Rodolfo Demaria, Carmen Soares, Alejandra Soto, Araceli Enriquez, Luisa Moreno and Pia Paaaby (instructor).



On Feb 21 a group of "Behind the Scenes" volunteers received certificates and pins for their contribution to STRI projects during 1990. In the photos (left to right) Rubén Vega (Of. of Education and computer services volunteer) receives certificate from D. Piperno; Adys Centeno (Of. of Design and Construction) with I. Rubinoff and A.L. de la Espada; group photo of Library volunteers with librarians; exhibit volunteers Jorge Silva, Lourdes Centeno and Franklin Bonilla ••• El 21 de febrero un grupo de voluntarios del programa "Tras Bastidores", recibieron certificados y prendedores en reconocimiento por su contribución a diversos proyectos del STRI durante 1990. En las fotos (de iz. a der.) Rubén Vega (Of. de Educación y Servicios Computacionales) recibe un certificado de D. Piperno; Adys Centeno con I. Rubinoff y A.L. de la Espada; grupo de voluntarios de la Biblioteca con los bibliotecarios; y los voluntarios de la exhibición, Jorge Silva, Lourdes Arosemena y Franklin Bonilla.

(Fotos: C.C. Hansen)

- Mar 2, James Nelson, SI National Museum of Natural History, to join Dr. C. Handley's project in Bocas del Toro.
- Mar 5-25, Michael Greenfield, to work on the evolution of acoustic signal interactions in Gamboa.
- Mar 5, Amy Warner, Coordinator, SI National Associates Program, to attend a meeting to plan a visit by Smithsonian Associates in 1992.
- Mar 6-13, Madeleine Jacobs and William Schultz, SI Office of Public Affairs, to visit STRI facilities and meet with staff.
- Mar 7-Apr 23, Maren Mork, to work with K. Winter on physiological and biomechanical characteristics of tropical plants in BCI.

Departures

- Olga Linares, Mar 7-21, to present seminar at Brandeis Univ, visit libraries at Cambridge and conduct official business in Washington.
- David Roubik, Mar 7-31, in OTRAT to Kansas City, Kansas.

On leave

- Marcos Guerra, STRI photographer, Mar 1-29.
- Maria Luz Calderón, Office of Education, Mar 8-29.

Wedding Bells

Congratulations to Héctor Guzmán and Irene Holst on their recent wedding!

AWARDS

A Grant from the Women's Committee was awarded to Mireya Correa, Noris Salazar (STRI) and Claudia de Peralta (University of Panama) to support an Environmental Educational Program at Campana National Park (Nature Trail). The grant will make possible the publication of a brochure identifying the most relevant information on bryophytes and lichens in the Nature Trail.

THINGS YOU SHOULD KNOW**From Visitor Services Office**

If you are planning to visit the "Cerro Jefe" area, you must notify the *Policía Tocumen* at 38-4095 or 38-4330, of the date of arrival, license plate # and the number of persons visiting, with names and cedula or passport number. For further information, please contact Maria Morello at Tupper Center.

ANNOUNCEMENTS**Poachers captured**

Three poachers were captured on Feb 24 outside the monument near the Gigante peninsula. Juan Barría, Mario Santamaría and a member of the Forest Police took the poachers to BCI. They had killed a pregnant female deer with a machete and received a citation.

From BCI

T.R.A.S.H. will meet on BCI Thursday, Mar 7 at 7:30 to discuss Silander Jr., J.A., 1985, "Microevolution in clonal plants", in *Population Biology and Evolution of Clonal Organisms*, ed. by J.B.C. Jackson, L.W. Buss and R.E. Cook. New Haven: Yale University Press. A launch will leave Gamboa at 5:35 pm and return from BCI at 9:00 pm. Please make dinner reservations with Maritza Cárdenas.

POSITIONS AVAILABLE

The International Council for Bird Preservation (ICBP) is advertising for the position of *Pan American Program Officer* to work out of Quito, Ecuador, which they hope to fill on April 1st. For full details, please check your facility bulletin board.

Charles Darwin Research Station, Galapagos Islands, Ecuador • Position: Science Coordinator**Responsibilities:**

- Coordinate all science and conservation projects,

including the station annual operation plan.

- Prepare funding proposals.
- Prepare technical and financial reports for ongoing projects.
- Evaluate scientific proposals for Galapagos National Park.
- Coordinate and promote special course.
- Direct and supervise the undergraduate program for Ecuadorian students including tesis projects.
- Supervise ongoing projects when Area Head are absent.
- Advise Ecuadorian institutions, specially the Galapagos Park Service on conservation and management.

Requirements:

- Ph.D. in natural sciences or related field.
- Three year work experience, preferably in Latin America
- Working and Speaking ability in both English and Spanish
- Availability for two year minimum
- Availability to work in and adapt to new cultures and surroundings

Position: Statistician/Environmental Monitoring Specialist

Responsibilities:

- Provide statistical support to CDRS staff and help undergraduate thesis students with project design and result evaluation.
- Direct and expand long term environmental monitoring program.
- Develop the computer program already established for the long term monitoring and expand data base.
- Help direct or carry out various associated monitoring activities which are under the general control of other areas in the station.

Requirements:

- University degree in biological and/or computer science.
- Working and speaking ability in Spanish
- Availability for two year minimum
- Ability to work in and adapt to new cultures and surroundings.

For further information: See announcement in Tupper Bulletin Board, or write to Craig MacFarland, President, Charles Darwin Foundation, 836 Mabelle, Moscow, ID 83843 (Tel.: (208) 883-4876) or Alfredo Carrasco, Director, Charles Darwin Research Station, Casilla 3891, Quito, Ecuador (Tel.: (593)2-244803, Fax (593)-2-501951.)

Closing date of applications: April 15, 1991.

Beginning date: June 1, 1991.

Youth Symphony

Orquesta Plan Juvenil in El Valle this weekend. Chamber Concerts Friday Mar 1 and Sat 2 at 7 pm. Sunday Concert at 11 am. in the El Valle Church. On Mar 4 they will give a concert in the Auditorium of Alberto Einstein Institute at 7:30 pm

STRI NEW PUBLICATIONS

- Arosemena, Fernando. 1990. "Los Anolis de Fortuna." *Publicaciones Técnicas*, No. 0, Agosto: 5-31.
- Carrier, David. 1990. "Activity of the Hypaxial Muscles During Walking in the Lizard *Iguana iguana*." *Journal of Experimental Biology* 152: 453-470.
- Carroll, Scott P. and Loye, Jenella E. 1990. "Male-Biased Sex Ratios, Female Promiscuity and Copulatory Mate Guarding in an Aggregating Tropical Bug, *Dysdercus bimaculatus*." *Journal of Insect Behavior* 3(1): 33-48.
- Fontaine, Roy. 1990. "Positional Behavior in *Saimiri boliviensis* and *Ateles geoffroyi*." *American Journal of Physical Anthropology* 82(4): 485-508.
- Garwood, Nancy C. and Lighton, J.R.B. 1990. "Physiological Ecology of Seed Respiration in Some Tropical Species." *The New Phytologist* 115(3): 549-558.
- Milton, Katharine. 1990. "Annual Mortality Patterns of a Mammal Community in Central Panama." *Journal of Tropical Ecology* 6: 493-499.
- Murawski, Darlene A. and Hamrick, J.L. 1990. "Local Genetic and Clonal Structure in the Tropical Terrestrial Bromeliad, *Aechmea magdalenae*." *American Journal of Botany* 77(9): 1201-1208.
- Murawski, Darlene A., Hamrick, J.L., Hubbell, S.P. and Foster, R.B. 1990. "Mating Systems of Two Bonbacaceous Trees of a Neotropical Moist Forest." *Oecologia* 82(4): 501-506.
- Putz, Francis E. 1990. "Liana Stem Diameter Growth and Mortality Rates on Barro Colorado Island, Panama." *Biotropica* 22(1): 103-105.
- Rand, Stanley. 1990. "The Diet of a Generalized Foliover: *Iguana iguana* in Panama." *Journal of Herpetology* 24(2): 211-214.



Robin Foster (right) explains the completion of phase of this year's census of the Forest Dynamics Project to participants of the Course on Conservation and Management of Natural Areas at BCI. The course ends this Friday, March 1st, after four weeks of intensive sessions ••• Robin Foster (derecha) explica el cierre de temporada del Proyecto de Dinámica de Bosques a participantes del Curso de Conservación y Manejo de Areas Silvestres en Barro Colorado. El curso será clausurado este viernes 1ro de marzo, luego de cuatro semanas de intensas sesiones. (Foto: M.A. Guerra)

Vermeij, Geerat J. 1990. "Interoceanic Differences in Adaptation: Effects of History and Productivity." *Marine Ecology Progress Series* 57(3): 293-305.

Welden, C.W., Hewett, S.W., Hubbell, Stephen P. and Foster, Robin B. 1991. "Sapling Survival, Growth, and Recruitment —Relationship to Canopy Height in a Neotropical Forest." *Ecology* 72(1): 35-50.

Se Vende Auto

Subaru 1.6 DL 1988, con todas las extras, alarma para ladrones y seguro. Interesados por favor llamar a Victoria Batista al 28-4150 en la oficina o al 60-8373 en su residencia.

From: 365 Ways to save our planet • Page-a-day calendar

Buy your eggs in old-fashioned cardboard cartons. Some stores encourage reuse of these cartons, which is the best possible solution. Alternatively, you can recycle or even compost the container— and that won't work with the polystyrene kind.

From The Personnel Office • De La Oficina de Personal

"When I've had a rough day, before I go to sleep, I ask myself if there's anything more I can do right now. If there isn't, I sleep sound."

L. L. Colbert

"Cuando he tenido un día difícil, antes de irme a dormir me pregunto si hay si hay algo más que pueda hacer en ese momento. Si no hay nada, me duermo profundamente."

L.L. Colbert

Leaving Your Work Behind

Do you ever find yourself at home brooding about things that happened at work? Most of us do "bring our work home" occasionally, but if we start to make a habit of it, it's not good for our home lives or for our work.

But how can you successfully shift from work to home and salvage your evenings (and your attitude about work)? Here are some suggestions:

- **Talk It Over** - Sometimes it's best to get whatever is bothering you out of your system by talking with a member of your family or a close friend. Often, just vocalizing your problem will make it disappear, or at least help you see it in a different way.

- **Write It Out** - If there is no one available to talk with, put down on paper exactly what's on your mind. When you've finished, tear up the paper and throw it away. Your worries should vanish (or diminish) too.

- **Get Some Exercise** - Many people find that it's best to "run away" from their problems instead —by jogging, taking a brisk walk, slamming a tennis ball around, or giving the house a vigorous cleaning.

- **Do Something That Requires Your Full Attention** - You won't be able to think about your troubles if you're too busy following directions or concentrating on what you're doing. Having a hobby that really interests you could be the answer to your problems.

Of course, if you find yourself upset day after day by the same work problem, it's time to take a closer look. You can't heal a broken arm with a Band-Aid, and you can't solve a serious problem by ignoring it and hoping it will go away.

But if unimportant irritations are following you home at night, do yourself a favor and try these tips. They'll not only improve your free time, but they'll also put you in a better frame of mind for your time on the job.

Worrying is the only game in which, when you guess right, you don't feel any better.

Hasta la proxima!

Colleen Quince

Dejar Atrás el Trabajo

Se ha encontrado algunas veces en la casa mortificándose por cosas que sucedieron en el trabajo? Muchos de nosotros a veces "nos llevamos el trabajo para la casa", pero si dejamos que esto se convierta en hábito, no es bueno ni para nuestra vida familiar ni para el trabajo.

Pero ¿cómo podemos lograr el cambio del trabajo a la casa sin perjudicar nuestras noches (y las actitudes hacia el trabajo)? A continuación, algunas sugerencias:

- **Conversar** - Algunas veces es mejor hablar del asunto que nos preocupa con algún miembro de nuestra familia o algún amigo. Muchas veces el solo hecho de vocalizar el problema hará que este desaparezca, o al menos ayudara a que Ud. lo vea desde otra perspectiva.

- **Escribir** - Si no hay nadie con quien conversar del problema, escriba en un papel exactamente lo que tenga en mente. Cuando termine, rompa el papel y bótelo. Sus preocupaciones se alejaran (o disminuirán) también.

- **Haga ejercicio** - Mucha gente considera que es mejor "salir corriendo" de los problemas —trotando, caminando con energía, pegándole a una pelota de tenis, o dándole a la casa una vigorosa limpieza.

- **Hacer Algo que Requiera Toda Nuestra Atención** - Usted no podrá pensar en sus problemas si se encuentra demasiado ocupado siguiendo ciertas instrucciones o concentrándose en algo que este haciendo. Tener un pasatiempo que realmente le interese podría ser la respuesta a sus problemas.

Indudablemente, si usted se siente disgustado día tras día debido al mismo problema de trabajo, entonces es hora de ponerle atención al asunto. No se puede arreglar un brazo roto con una curita, y los problemas serios no se pueden resolver ignorándolos y deseando que estos desaparezcan.

Pero si ciertas irritaciones sin mayor importancia le persiguen por la noche en casa, hágase un favor y ensaye algunas de estas sugerencias. Esto no solamente hará que su tiempo libre sea mejor, sino que también le proporcionara un mejor estado de animo durante el tiempo que pase en el trabajo.

La preocupación es el único juego en el que, cuando se acierta, uno no se siente mejor.



Sentido del humor