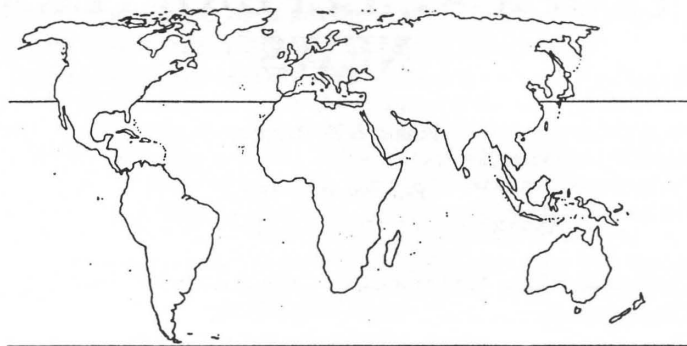


TROPICAL LEPIDOPTERA NEWS

March/June 1991 No. 1-2



1991 Meeting Participants: [FRONT ROW]: Marina Heppner, Vanessa Heppner, Patricio Ponce, Jussara Pereira (Urbana, IL), Marc Minno, Phil Schappert (Ontario, Canada), John Heppner, Howard Weems, Betty & Leroy Koehn (Coral Springs, FL), Jeffrey Sloten, Leroy Simon (Leesburg, FL), (?); [MIDDLE ROW]: Jaret Daniels, Ross Amett Jr., Lee Adair (Tampa, FL), Ira Nadborne (New York, NY), Pat Skillman (Citra, FL), Mr. Skillman, Fred Skillman (Citra, FL), Alma Solis (Washington, DC), Tom Klein, Rick Gillmore (Sanford, FL), Ann Milner (Augusta, GA), Deborah Matthews; [BACK ROW]: Woody Dow (Largo, FL), Charles Stevens (Jacksonville, FL), James Nation, Jack Petr (Keene, TX), Tom Emmel, Roger Zebold (Wilmington, OH), Sid Dunkle, Don Miller (Lyndonville, VT), Dale Habeck, Jack Heinrich (Alva, FL), Steve Passoa (Reynoldsburg, OH), Mark Scriber (East Lansing, MI), Paul Milner (Augusta, GA), Dave Baggett (Palatka, FL). (Gainesville unless noted)

ANNUAL MEETING 1991

April 5-7, 1991
Gainesville, Florida

The first annual meeting of the Association for Tropical Lepidoptera was held in Gainesville, Florida, together with the 1991 spring meeting of the Southern Lepidopterists' Society. The Florida State Collection of Arthropods (FSCA) was host for the meeting. The meeting had 35 registrants and several guests. All meeting sessions were held at the Doyle Conner Auditorium. The FSCA and the new Department of Entomology building nearby

(University of Florida), were open for visitors on April 5. Friday afternoon and evening involved registration and a welcome session. Saturday morning and afternoon sessions were divided between the Association and the Southern Lepidopterists' Society, ending with an evening banquet. Groups went collecting Sunday, with one party going to nearby Cedar Key, on the Gulf Coast, for luncheon and local collecting.

TROPICAL LEPIDOPTERA NEWS

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TROPICAL LEPIDOPTERA SEPARATES: Articles from *Tropical Lepidoptera* can now be purchased for \$1 for the first page and 25¢ for each additional page. Specify author, volume, and page numbers when ordering. Members may also buy additional copies of *Tropical Lepidoptera* issues for \$10.00 each.

TRAVEL

1991 Holbrook Travel Lepidoptera Expeditions:

Mar 13-24	Rondonia, Brazil
Apr 17-28	Rondonia, Brazil
May 24-Jun 7	Malaysia
Aug 10-24	Western Kenya
Nov 13-24	Rondonia, Brazil

TO OUR READERS

The first Annual Meeting of our society has been completed now and membership has passed the 500 member mark, including four life members. The Association needs your continued support to produce the extensive use of color in *Tropical Lepidoptera* and to generate funding for the goals of studying and conserving the tropical and subtropical Lepidoptera faunas. Although an attempt has been made to bring the Association and *Tropical Lepidoptera* to the attention of all Lepidoptera enthusiasts in the world, your help is needed to spread the word to others who we have missed so they may also become members. The professionals among our membership should also ensure that their university or other institutional library begins a subscription to the journal.

Support of the goals of the Association through a life membership is one of the best ways to ensure our continued growth. One should remember that the reason color magazines like *International Wildlife* or *Natural History* can produce monthly or bi-monthly issues at about the same cost as our journal is due to the vast base of several hundred thousand members supporting these publications. Our Association can accept a life membership paid over a 4-year period of \$250 per year or the one-time payment of \$1000. Life members receive the journal and newsletters by airmail at no extra charge.

J. B. Heppner
Executive Director

CHARTER MEMBERSHIP & LIST

The 1990-91 list of members will be postponed until the next newsletter due to continued confusion about the first year of publication and membership dues.

Members wanting to be listed as **Charter Members** and to receive both issues for 1990 (Vol. 1) must send dues for 1990. Those members having only paid dues for 1991 will not be listed as Charter Members and will receive the journal and newsletters only beginning with the 1991 (Vol. 2) issues, thus your journal set will be missing issue No. 2 for 1990.

Please note your mailing label to see whether you have paid only for 1991 (/91) or if both years are paid in full (/90-91), to the right of your name and membership number. All dues for Charter Memberships need to be received prior to June 30, 1991.

The next *Tropical Lepidoptera* should be mailed in July.

DUES IN FOREIGN CURRENCY

Members outside of the U.S. often have excessive bank charges for transfer of dues and other payments in U.S. Dollars. To help alleviate this problem, payment for membership can be sent as US\$25 in cash or in the following currencies and amounts (NOTE: this is for cash sent as paper money only):

FRANCE: F. 150.00, GERMANY: DM 45.00, JAPAN: ¥ 4,000,
UNITED KINGDOM: £ 15.00, TAIWAN: NTS 750.

1991 ANNUAL MEETING

SYMPOSIUM ON TROPICAL DIVERSITY

April 6

Emmel, T. C. (Dept. of Zoology, Univ. of Florida, Gainesville, FL):
Species Diversity of Butterflies and Biological Conservation in Rondonia, Brazil

Diversity in Rondonia is phenomenally among the highest in the world, perhaps about 1,600 species. The Fazenda Rancho Grande is now becoming a major research site and headquarters for an enlarging forest reserve to protect some of what remains of the original rain forests of Rondonia.

Heppner, J. B. (Florida St. Collection of Arthropods, Gainesville, FL):
An Overview of the Lepidoptera Fauna of Taiwan and its Diversity

A survey of Taiwan Lepidoptera was begun in 1981 under Smithsonian Institution, NSF, and Taiwan Museum funding. The catalog to the known species currently records about 3,850 species of Lepidoptera for Taiwan, including 400 butterfly species. Taiwan is especially interesting due to the high elevations that support a relict Himalaya fauna and many species or relatives from Japan and northern Eurasia, while also having rich forests with a large tropical fauna in the lowlands. Description of the many new species among the very smallest moths will probably bring the total to over 5,000 species.

Solis, M. A. (USDA, c/o USNM, Washington, DC):
Pondering Neotropical Pyralidae: Past, Present, and Future

An overview of Neotropical Pyralidae, with photographs by K. Sandveld of the Smithsonian Institution, shows the research needs among this vast fauna, estimated to encompass over 3,500 species from Mexico to Argentina.

Schappert, P. J., & J. S. Shore (York Univ., Maple, ON, Canada):
The Biology of *Euptoieta hegesia* (Nymphalidae) in Jamaica:
Results of Preliminary Studies

Mate-locating behaviors of butterflies are characterized by extremes: patrolling (active search) and perching (passive search). Scott (1983) suggested that differences in mate-locating behavior would be correlated with overall size and forewing shape. I measured size, forewing shape and apical angle in 43 butterfly species found in Peterborough Co., Ontario (31 genera in 6 families: 17 spp. patrol, 21 perch, and 5 perform both). Results showed that 1) size is the most important influence on the apical angle of the forewing, and 2) there is no difference in forewing shape, apical angle, or overall butterfly size as a function of mate-location behavior. My findings suggest that the relationship between wing morphology, aerodynamics, and mate-location strategies is more complex than previously thought.

Scriber, J. M., R. C. Lederhouse, and K. S. Brown, Jr
(Michigan State Univ., East Lansing, MI; Univ. Est. Campinas, Brazil):
Hybridization of the Brazilian *Papilio* (*Pyrrhosticta*) (section V)
with the North American *Papilio* (*Pterourus*) (section III)

Male *Papilio* (*Pyrrhosticta*) *scamander* Bdv., from Campinas, Brazil, were hand-paired to virgin *Papilio* (*Pterourus*) *glaucus* L. and *Papilio* (*Pterourus*) *palamedes* Drury females. Egg viability was less than 10% for two *glaucus-scamander* crosses and 18% for two *palamedes-scamander* crosses. The *glaucus-scamander* larvae developed to pupation on sweetbay, tuliptree and cucumbertree (Magnoliaceae), and black cherry (Rosaceae), but died on redbay (Lauraceae). The *palamedes-scamander* larvae developed to the last instar on redbay and camphortree (Lauraceae), but none pupated successfully. One female and 3 male *glaucus-scamander* adults emerged. Backcrosses were unsuccessful in producing viable eggs. Similarities of *P. scamander* adults, larvae and food plant use with the Mexican *Papilio garamus* Geyer are intriguing. Crosses of Brazilian *Papilio* (*Pyrrhosticta*) *cleotas* Gray with *P. glaucus* gave a higher egg fertility (68%) and the larvae fed well on *Talauma ovata* and *Michelia champaca* (Magnoliaceae), though none molted to second instar. These results indicate a reasonable biological proximity between the five species mentioned, in spite of their current placement in two subgenera and four species groups.

Schappert, P. J. (York Univ., Maple, ON, Canada):

The Size and Shape of Butterfly Wings: on the Relationship between Mate-location Behavior and Wing Morphology

Turnera ulmifolia var. *angustifolia* is a Neotropical shrub common to "coastal scrub" habitats in Jamaica. It is the primary hostplant of *Euptoieta hegesia* on the island. Recent investigations by us have determined that discrete populations of *T. ulmifolia* from Jamaica exhibit a cyanogenesis polymorphism. Genetic variation for the amount of cyanide liberated exists within and between plant populations. Our studies of *E. hegesia* have concentrated on the cyanide/hostplant interactions. Field studies found that larval distribution is "clumped" on acyanogenic hosts (mean larvae/plant = 2.7 [n = 212]; plant scores 97% 'low'). Laboratory study of the effects of cyanogenesis on this herbivore are testing questions of sequestration of cyanogens by larvae, female oviposition preference, larval feeding preference, and the growth rate of larvae.

Heppner, J. B. (Florida St. Collection of Arthropods, Gainesville, FL):
Project Wallace and Lepidoptera Diversity in Sulawesi, Indonesia

Project Wallace was a year-long scientific expedition organized by the Royal Entomological Society of London, in cooperation with the Indonesian authorities and the Museum Bogorensis, Bogor, Java, to study diversity and related aspects of entomology and economic agriculture in northern Sulawesi, at Dumoga-Bone National Park. The expedition was organized for the 150th anniversary of the society and the 100th anniversary of their Royal Charter, as well as to honor Wallace and his work in the East Indies. My own collecting involved 4 weeks of survey collecting of Lepidoptera in Sulawesi. Results from this work indicate that diversity in northern Sulawesi is very high, with 2,475 species recorded from my collecting, including the general survey total from the overall expedition of 200 butterfly species. This is only a fraction of the total estimated fauna of perhaps 4,500 species for this part of Sulawesi.

NOTE: other papers and photo-essays were also presented in the afternoon session, for the meeting of the Southern Lepidopterists' Society, and Saturday evening at the banquet.

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SOS RAIN FOREST PROJECT GAINS MOMENTUM

Exciting things are happening in Brazil as a result of the SOS Rain Forest Fund project started just over a year ago by a group of tropically oriented lepidopterists. When the initial SOS Rain Forest Fund was set up at the University of Florida Foundation in early January 1990, little did we know that so many hundreds of interested naturalists across the United States and elsewhere in the world would respond to an appeal for funds to buy a tract of virgin tropical rain forest in central Rondonia, in western Brazil. But the lepidopterological community and a great many other people have responded with generous donations indeed, and last November, the first \$8,000 was transferred to Brazil to aid in obtaining a tract of 625 acres adjacent to the Fazenda Rancho Grande Field Station. That land has now been fully acquired and turned over to a new Brazilian foundation, FAUTRON, which will administer the site in perpetuity. This initial reserve, and up to 12 other 625-acre (250-hectare) parcels in that area, will continue to be preserved for visitors to enjoy and do research in, in association with the Fazenda Rancho Grande Field Station.

Construction has already started on the central buildings of the Rancho Grande Field Station. The first housing and bathroom unit was completed in April and the main field station building itself (with a large central area for naturalists to work on various projects, as well as rearing cages, etc.) is underway (the concrete foundations were poured in late April).

Additionally, we have negotiated an agreement with a second nonprofit foundation, Biological Analysis and Research Center, Inc., in Huntsville, Texas, to handle the funds donated to the SOS Rain Forest Fund specifically for land purchase, while the University of Florida's SOS Rain Forest Fund administration will continue to provide overall coordination and implementation of the building, library, and other specific-purpose donations, including some that have been given to support exchange visits between

Brazilian and U.S. graduate students.

The great majority of the donations to this fund continue to be designated for land purchase and preservation, of course, and that is the single most important element of this drive. In association with that effort, the famous wildlife artist, Tom Allen (a member of our Association) has donated his time and talent to produce an original painting, *Rain Forest Solitude*, based on his personal observations on trips there in Rondonia. A full-color flier is enclosed of this painting. A limited edition of 1,500 prints (signed and numbered) has been produced by a superb printer in West Virginia. Interested lepidopterists and other naturalists may wish to obtain such a print for the modest donation of a minimum of \$60 towards the SOS Rain Forest Fund. Simply use the enclosed coupon to indicate your request. Of the \$60 amount, \$50 goes directly for land purchase and preservation in Brazil, while \$5 goes towards the cost of producing the limited edition prints and \$5 for postage and handling.

All orders should be sent to the SOS Rain Forest Project, 421 Carr Hall, University of Florida, Gainesville, FL 32611, with checks made out to the **University of Florida Foundation - SOS Rain Forest Fund**. The \$50 portion of the donation is tax-deductible in the United States. This beautiful painting, containing three beautiful Brazilian species of butterflies, will add a nice centerpiece of attention to your home or office, and you will have the satisfaction of knowing that you helped to preserve a tract of this matchless rain forest for future generations of lepidopterists to enjoy, and in which to pursue and photograph tropical butterflies.

Thomas C. Emmel
Dept. of Zoology, Univ. of Florida,
Gainesville, FL 32611

MEMBER NOTICES

Torben B. Larsen: I am currently working on a comprehensive book entitled *Butterflies of Botswana*. I would be grateful for any interesting information on Botswanan butterflies, or indeed, any information at all. Data will be gratefully acknowledged in the book and all letters will be answered.
Dr. Torben B. Larsen, Jacobys alle 2, DK-1806 Fredericksberg C, DENMARK.

ASSOCIATION P. O. BOX CHANGE

Our Post Office box number will change effective June 1, 1991, to the following: **P. O. Box 147100, Gainesville, FL 32614-7100**. The same address change will also apply to the Florida State Collection of Arthropods.