

# LEPIDOPTERA NEWS

**March 1998** 

No. 1

## ATL LEPIDOPTERA SYMPOSIUM – 1998 Annual Meeting

The 1998 annual ATL Lepidoptera Symposium and Annual Meeting will take place April 17-19. We hope you will attend. This year, we have a guest speaker and a Sunday excursion to historic St. Augustine, the oldest city in the United States. Our 1998 guest speaker will be Dr. Philip J. DeVries, author of the recent books on Costa Rican butterflies, and professor of biology at the Universty of Oregon, Eugene, Oregon.

In addition to our usual Saturday program of speakers, photo contest exhibition and prize awards for the winners, banquet, and evening slide show, there will also be the first awards presentation for the new ATL Henry Bates Award and the ATL Jacob Hübner Award. It should be a great meeting! Reminisences of past meetings are noted inside (see p. 5-7). Meeting attendance

over the years has been high and low, but we hope this year you will try to come to Gainesville! Also, Florida can be the jumping off point for a trip to the tropics arranged by Expedition Travel. So, come to the meeting first and then fly to Miami and the tropics for a first-hand look at tropical butterflies and moths!

Note that the 1998 ATL Photo Contest will have \$750 in regular prizes, including \$150 first place prizes in each of three categories (adult butterflies, adult moths, and immatures), and also a \$300 Grand Prize for the overall top point winner! Butterfly World (Coconut Creek, FL), Expedition Travel (Gainesville, FL), and Scientific Publishers (Gainesville, FL) each donated \$100 towards the Grand Prize for the 1998 ATL Photo Contest. Send entries before the absolute deadline of March 15, 1998 (same day each year).

## ATL HOME PAGE: www.troplep.org

The ATL web site continues to be a popular site to visit by lepidopterists: over 6,500 visitors have been logged in since we opened the site! The scanned color images showing two of our color journal covers are designed for use in Netscape, so they do not look optimal with some other web browsers. We hope to add the contents pages and cover layouts for each issue since 1990 sometime this year.

Check on updates to our growing list of publications, like the new *Lepidopterorum Catalogus* series: note that this series of world-wide catalogs by leading experts provides the current names and classification for each family, listings of all known hostplants, complete bibliography, and at least one plate illustrating representative species. In 1998, several additional families should be ready. Three were done in 1997, one in 1996, and the Noctuidae were completed in 1989 (the latter without illustrations).

## **CONTENTS** for Journals

The 1992-93 Contents section, for *Tropical Lepidoptera* volumes 3-4, is again in print. Those members lacking this may send a request for one by mail or e-mail. Contents sections for 1996-97 (Vol. 7-8), and for *Holarctic Lepidoptera* 1994-97 (Vol. 1-4) will be ready sometime this year and sent to all members.

## **ANNOUNCEMENT! 1998 ATL Awards**

Henry Bates Award: Dr. Jon D. Turner, USA
Jacob Hübner Award: Dr. Eugene G. Munroe, Canada

## ATL PHOTO REGISTRY

Remember, sending your photo list provides a future record of your hard-won field work in getting those rare shots of butterflies and moths. List your slides with us so others can know what you have discovered. Your listing with ATL does not give any ownership rights to ATL, it merely documents what images you have. You may well have photographed a species never before captured live in a photo.

Additionally, think of your legacy. Before your relatives get their hands on your valued photos, and perhaps discard them without realizing any use for them, make your plans to donate your slides to a museum or to ATL. But first, make sure your list of images is registered with ATL. In this way others will be able to check what images are available and may be able to contact you to use some of them. Some commercial publishers pay for the use of images in their magazines or books. Do not leave your slide collection to unappreciative relatives. Any listing of slides in the ATL Photo Registry does not imply future donation: that is a only choice you can make in the future.

ATL EXPEDITIONS: Jan 1999 - CHILE: deserts, high Andes and the Lake District!

Jul 1999 - VENEZUELA: first trip in over a decade to this diverse country!

# LEPIDOPTERA NEWS

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**JOURNAL SEPARATES** (1990-95 only): \$1 first page, 25¢ each added page. Specify author and citation. Past journal issues: \$10 each (1990-92), \$15 each (1993-95), \$20 each (1996-97). *TL News*: \$5 per year. **CONTENTS** for the journals will be issued in 1998.

#### **EXPEDITIONS:**

CHILE (Santiago, Concepción, and Lake District)

VENEZUELA (ATL meeting at Coro, plus other sites):

July 1999

## TO OUR READERS

The remarks by our out-going ATL President, in this issue of the News, brings up an important theme for all ATL members and for Lepidoptera enthusiasts everywhere: the need to preserve habitats for butterflies and moths. A particularly vital aspect of this is in regard to ecological habitats, or plant-communities, that are not remarkable, either in the tropics or in northern regions. For example, poor-looking grasslands or other seemingly desolate areas, are the only habitat for some plants that serve as hosts of various butterflies and moths. Most countries have national parks and reserves that protect spectacular scenery or unusual plants (like California redwoods, or cedars in Lebanon), etc., but few preserves are devoted to areas that few are interested in or that show no unusual scenery. These "neglected" sites are still important for some species and, thus, need to be protected. So, even near home, each of us can try to find a habitat that needs protection so that hostplants for some butterfly or moth can survive in the future. Dr. Turner discusses the needs in some tropical areas, but all the members not living there can also find habitats to preserve closer to home, as well as supporting the needs of the tropics.

ATL can provide an avenue for your conservation project, whether tropical or temperate. Dr. Turner mentioned current ATL projects. If you have some other sites that should be brought to the attention of the membership for possible support, please let us know (send your suggestions and/or donations to Dr. Emmel, Dir. of Development).

J. B. Heppner Executive Director

#### NOTES

- 1. 1998 Annual Meeting: April 17-19, in Gainesville.
- 2. 1999 Annual Meeting: proposed for Venezuela, at the site of the meetings of the Entomological Society of Venezuela and the Florida Entomological Society, in Coro, July 1999. Please let us know if you are interested in attending this meeting/field trip. We are planning a 1-day meeting venue, then about 10 days of field studies in northern Venezuela, a region that includes tropical deserts, the northern end of the Andes, cloud forests, and lowland rain forests, all close enough that they can all be sampled within a few days travel.
- 2. 1998 Annual Photo Contest: Do not forget to get your best photos ready for the 1998 ATL Photo Contest! Members are welcome to enter up to 4 photographs (8x10 in) taken in nature in each of three categories: butterflies, moths, and immatures. We now accept photos of temperate or tropical species. Prizes now total \$750 (\$150 first place, \$75 second place, \$25 third place, in each category), plus an added special Grand Prize of \$300 for the overall top point winner.
- 3. **DUES**: The dues remain the same for members making timely payment (postmarked before the end of December): still \$65 for both journals. Single journal (either *Holarctic Lepidoptera* or *Tropical Lepidoptera*) dues remain at \$40 per year. It is \$75 for both only as the cover price and for members not paying on time. Please help us out by paying on time!
- 4. ATL Home Page: see it at http://www.troplep.org.

#### 1997 ATL ELECTION RESULTS

The return of ballots for the 1997 ATL elections was exceptional, with 216 ballots received before the end of December. Results are as follows:

President:

Dr. Boyce A. Drummond, III

131

Dr. Allen M. Young

85

Congratulations to Dr. Drummond for his election as ATL President for 1998! The Vice-President (Dr. Thomas C. Emmel) and the Secr./Treas. (Dr. John B. Heppner) were re-elected; there were 2 write-ins, as well. No Board members were up for election this time.

## PRESIDENTIAL UPDATE, 1997

It has been a pleasure to serve as President of ATL during 1997. I was disappointed in the number of responses to my call for action in my presidential address last year, but the quality of the response was excellent. Hopefully, more members will become involved in ATL fund-raising activities.

First, a correction to my presidential address. The Nature Conservancy, from the most recently available data (*Money*, November 1996), spent 83% of its income on programs, including land purchases, and not the 74% I reported. My data was correct but outdated. Furthermore, operations of The Nature Conservancy are funded by membership dues and gifts solicited explicitly for that purpose, with money raised specifically for conservation projects spent entirely on those projects. The Nature Conservancy is highly rated by "watchdog" agencies in the USA and was one of the highest rated American charities in the *Money* magazine article. Thanks to Dr. John Shuey for this updated information.

Your ATL has expanded its Rain Forest Fund support to an existing biological field station at the Yasuni National Park in eastern Ecuador, through the Catholic University, in Quito. ATL members, with approval of the coordinator, Dr. Patricio Ponce (P.O. Box 17-12-82, Quito, Ecuador), may visit the station for Lepidoptera research, including surveys. As with all ATL Rain Forest Fund donations, fully 100% of the monies go directly to the project.

Donations to either ATL Rain Forest Fund project should be directed to Dr. Thomas C. Emmel, ATL Vice-President and Director of Development (Endangered Species Laboratory, Dept. of Zoology, University of Florida, Gainesville, FL 32611). Donations should specify the particular project (Rondônia or Ecuador), or may also be specified to the Student Research Fund for grants to graduate students. You may even make a larger donation for some new project: just discuss your ideas with Dr. Emmel. All ATL donations are tax-deductible for U.S. and Canadian citizens: check with your taxing authorities for other nationalities.

There is interest in establing a reserve in the Usambara Mountains, in Tanzania: contact Hannu Saarenmau (Kobmagergade 55, Suite 4, DK-1150 Copenhagen, Denmark). Also, Jan Meerman (P. O. Box 208, Belmopan, Belize) is the contact person for the Belize Tropical Forest Studies: he is looking for students and researchers wishing to pursue Lepidoptera projects in Belize. There are other sites, like a biological station being organized in the Dominican Republic (contact Dr. Robert Woodruff, FSCA, P. O. Box 147100, Gainesville, FL 32614), and the new Bocas del Toro Biological Station, in northwestern Panama, run by the Institute for Tropical Ecology and Conservation (contact Dr. Peter N. Lahanas, ITEC, P. O. Box 140564, Gainesville, FL 32614).

I urge the membership of ATL to become more involved in habitat preservation and support of graduate student research.

**Dr. Jon D. Turner** 1997 ATL President

## LEPIDOPTERISTS' SOCIETY OF SOUTHERN AFRICA

William H. Henning has sent some very interesting information on the Lepidopterists' Society of Southern Africa, an organization which will be of special interest to the members of our Association and the readers of *Tropical Lepidoptera*. The Lepidopterists' Society of Southern Africa was founded in 1984, and today comprises several hundred members from throughout the world. In 1990, the Society founded a new journal, *Metamorphosis*, which is currently in its ninth volume (1998). The aims of the Lepidopterists' Society of Southern Africa are to promote the scientific study and conservation of Lepidoptera in southern Africa, and to promote the publication of original scientific papers as well as articles of a less technical nature in the journal, *Metamorphosis*, or other publications of the Society.

Membership in the Society is open to all persons interested in the study of Lepidoptera. There is no geographic limit to membership. There are three categories of membership: full members (overseas members, \$44 US per annum or £22 UK), junior members and retired persons (overseas members, \$22 US per year or £11 UK), and institutional affiliate members (overseas members, \$44 US per year or £22 UK). Membership inquiries and correspondence may be directed to the Honorable Secretary, Lepidopterists' Society of Southern Africa, P. O. Box 470, Florida Hills, 1716 Transvaal, Republic of South Africa.

The journal issues that I have received to date have indeed included an interesting mix of amateur and professional contributions. Many of the articles are illustrated with color or halftone photographs or excellent line drawings. Fascinating articles on butterfly collecting, bait trapping, etc., are interspersed with technical descriptions of new taxa, life histories and biographical essays. The color covers and design are excellent. Manuscripts dealing with any aspect of the study of Afrotropical Lepidoptera will be considered for publication, so the geographical coverage of articles extends well beyond southern Africa. The journal alone is well worth the annual membership, but one also receives an annual membership list which includes interests of the membership and which would be an excellent source for those interested in exchanging specimens, stamps, and information in general on Lepidoptera. I highly recommend joining the Lepidopterists' Society of Southern Africa and supporting their worthwhile publication.

T.C.E.

#### ENTOMOLOGICAL NEWS FROM RUSSIA

This new society and journal from Russia is to begin publication early in 1998. The journal will comprise 4 issues per year, and be a mix of various articles on Russian insects, particularly Lepidoptera and beetles. Notes will include reports on expeditions, lists of species, new species, and any data on the biology and ecology of insects in the Russian region. The text is to be exclusively in English and well illustrated. Yearly dues are set at \$65 US. Contact Mr. Sergei Gundorov, Plant Protection Dept., Agricultural Inst., Teatralnaia Square. ROS-410710 Saratov, Russia. Fax: (7-8452) 264-963.

## THE NUMBER OF BUTTERFLY FAMILIES IN THE ORDER LEPIDOPTERA

Thomas C. Emmel (Dept. of Zoology, University of Florida, Gainesville, Florida 32611, USA)

It may seem to most lepidopterists that despite Linnaeus' 1758 contribution towards codifying the naming of species and higher taxa from the pre-existing chaos in taxonomy, there has been previous little stability to enjoy, even with a well-known group like the butterflies. In the past two decades alone, major books on North American butterflies have used a variety of generic and even specific names to refer to the same species of butterfly. To cite but one example, the West Coast Lady (Vanessa carye), well-known to generations of West Coast lepidopterists from such seminal works as John Adams Comstock's 1927 book, BUTTERFLIES OF CALIFORNIA, or Paul and Anne Ehrlich's 1961 book, HOW TO KNOW THE BUTTERFLIES, was changed by William D. Field to Cynthia annabella in 1971. Subsequent authors such as William Howe, BUTTERFLIES OF NORTH AMERICA (1976), Robert Michael Pyle, AUDUBON FIELD GUIDE TO THE NORTH AMERICAN BUTTERFLIES (1981), or James A. Scott, THE BUTTERFLIES OF NORTH AMERICA (1986), picked and chose among these names according to their own thoughts on the matter. One of the chief contributing factors to increased uncertainty about generic assignments was the large number of changes brought to the Nearctic lepidopterists' community by the 1981 publication by L. D. Miller and F. M. Brown, CATALOGUE/HECKLIST OF THE BUTTERFLIES OF AMERICA NORTH OF MEXICO, sponsored by the Lepidopterists' Society. Here, many familiar generic names were sunk as various subgeneric names were lifted to full generic status.

But if you have been confused by species' assignments to different genera, just consider for a moment the variability in the number of butterfly families that have been and still are referred to in the literature! Anywhere from 4 families (Kristensen, 1976) to 24 families (Smart, 1989) in the major superfamily Papilionoidea alone (excluding skipper groups) have been recognized. Much of this variability comes from treating the various nymphalid subfamilies as families, but some legitimate controversy also exists with apparent Lycaenidae-related groups, such as the metalmarks (Riodinidae).

Besides the rank of families, family affinities have also been controversial, with competing phylogenetic hypotheses derived from morphological studies using different methodologies (phenetic versus cladistic), different character polarities or weights, definition of characters and character states and different basic sets of morphological data which may be based on adults alone or adults and immature stages. This can result in a different placement of Pieridae (sulphurs and whites) as a sister group to Papilionidae or to a broader clade containing the Lycaenidae, Riodinidae, and Nymphalidae. The metalmarks in the family Riodinidae have been treated either as a distinct family or as a subfamily of Lycaenidae or even a sister taxon to the Nymphalidae, these interpretations affecting their placement in the phylogeny of butterflies.

The latest major reassessment of butterfly family relationships has recently been made in an important paper by Susan J. Weller, D. P. Pashley, and J. A. Martin (1996). Susan J. Weller and her colleagues have addressed the question of evolutionary relationships in the true butterflies (Papilionoidea) by examining gene nucleotide sequence data from genes in the nuclear DNA, the ribosomal RNA, and a protein-coding gene in the mitochondrial DNA. By way of background, the mitochondria are organelles found in the cells of all organisms. They are believed to have originated in cells as symbiotic bacteria billions of years ago, and they still preserve today their own strand of DNA to direct their reproduction within animal and plant cells and to direct their functioning in breaking down glucose and releasing energy for cellular work. Their inheritance is very conservative and their DNA strands change by mutation very slowly over millions of years. Ribosomes are the protein-producing bodies in the cell, and ribosomal RNA is a nucleic acid made ultimately in the nucleus. Because the ribosome in all life has such a key role in assembling the 20 known amino acids into proteins, there is very little variation that is allowable by natural selection in this nucleic acid. Nuclear DNA is that DNA found in the chromosomes, and has quite a bit of extra, duplicated, unnecessary, or extraneous material that can accumulate mutations without adverse effect on the organism. If one can find a particular gene, such as the mitochondrial ND1 gene, the 28S ribosomal RNA gene, and nuclear genes, and sequence the nucleotides in them in different species, you can compare these differences with morphological characters obtained from the literature and obtain an independent estimate of phylogeny.

The authors found it was not possible to produce a single possible phylogenetic tree for the butterflies from either morphological or sequence data alone. The results of these trees disagreed on the relationships of the Pieridae, Lycaenidae, and Riodinidae. However, by doing a total evidence analysis with all the data, they found that Kristensen's (1976) hypothesis of butterfly evolution was supported over competing hypotheses. The morphological characters that had previously been shown by other authors to support the sister-group relationship of Papilionidae and Pieridae turned out to be most likely convergent (that is, latter-day similarity caused by two separate evolutionary lines converging towards each other in some physical characteristics in legs, etc.). Also, molecular analyses did not support an association of Riodinidae and Nymphalidae, as has been suggested recently by some authors.

The strict consensus tree, that is, the most robust hypothesis of butterfly evolution that Weller *et al.* (1996) could derive, was a result of the combination of the molecular data and the high internal consistency of the morphological data. Their conclusion was that the family structure of butterflies could be best represented by the following 5 families in the Papilionoidea:

Papilionidae

Pieridae

Lycaenidae

Riodinidae

Nymphalidae

They found that the Hesperioidea clearly split off earlier from the above family groups composing the Papilionoidea. Likewise, the Libytheinae (snout butterflies) were best considered a subfamily in the Nymphalidae, although they branched off very close to the base of the Nymphalidae before all other groups tested. In the ribosomal RNA analysis, all these butterfly families were monophyletic; that is, each family was found to originate from a single ancestral line, and did not have multiple origins.

This interesting paper and the references included in it should be consulted by anyone interested in the family relationships of the butterflies. The purpose of this brief review is to bring it wider attention among lepidopterists who might not have seen the original publication.

#### **References Cited**

Kristensen, N. P.

 Remarks on the family-level phylogeny of butterflies (Insecta, Lepidoptera, Rhopalocera). Zeit. Zool. Syst. Evol. Forsch. 14: 25-33

Smart, P.

1989. The Illustrated Encyclopedia of the Butterfly World. New York: Chartwell.

Weller, S. J., D. P. Pashley, and J. A. Martin

1996. Reassessment of butterfly family relationships using independent genes and morphology. *Ann. Ent. Soc. Amer.* (Lanham), 89:184-192.

## ATL MEETINGS PAST



1992 ATL Meeting (Plate 1, Fig. 1-7) (all from Gainesville except as noted): 1. Group Photo: 1) Mrs. Skillman. 2) Dr. A. Teobaldelli (Sforzacosta, Italy). 3) M. Balcázar (now in Mexico City, Mexico). 4) Dr. J. Slotten. 5-6) Mr. & Mrs. K. Tidwell (Salt Lake City, UT). 7) Dr. G. Ross (Baton Rouge, LA). 8) S. Menghini (Rome, Italy). 9) Dr. D. Habeck. 10) Mrs. Teobaldelli (Sforzacosta, Italy). 11) D. Matthews. 12) P. Arrunta (Sforzacosta, Italy). 13) J. Cicero. 14) J. Watts (now Houston, TX). 15) L. Engelage. 16) J. Heinrich (Alva, FL). 17) K. Reed (Winter Park, FL). 18) A. Alonso. 19) P. Eliazar. 20-21) Mr. & Mrs. T. Allen (Elkins, WV). 22) R. Gilmore (Sanford, FL). 23) S. Larsen. 24) Mrs. Scriber (East Lansing, MI). 25) grandson of J. Taylor. 26) Dr. T. Emmel. 27) Dr. R. Lederhouse (East Lansing, MI). 28-29) Mr. & Mrs. R. Boender (Ft. Lauderdale, FL). 30) V. Heppner. 31) Dr. J. Heppner. 32) L. Groce. 33) C. Stevens (Jacksonville, FL). 34) Dr. M. Scriber (East Lansing, MI). 35-36) Mr. & Mrs. J. Taylor (Savannah, GA). 37) P. Hubbell (Huntsville, TX). 38) M. Druckenbrod (Shaker Heights, OH). 39) Dr. J. Adams (Dalton, GA). 40-41) Dr. & Mrs. P. Milner (Atlanta, GA). 42) T. Neal. 43) M. Heppner. 44) Dr. J. Nation. 45) F. Skillman. 46) ?

2. Sunday group in St. Augustine: (left to right) G. Ross, M. Balcázar, J. Heppner, A. Alonso (front), Miss Vanessa (front), S. Menghini (back), P. Arrunta (front), A. Teobaldelli (back), Mrs. Teobaldelli. 3. Italian visitors with Dr. Heppner (left): Dr. A. Teobaldelli, S. Menghini, P. Arrunta, Mrs. Teobaldelli. 4. Collectors at River Styx: Miss Vanessa, K. Tidwell, J. Heppner, Mrs. Tidwell. 5. Group at River Styx: M. Balcázar, Miss Vanessa, S. Menghini, P. Arrunta, A. Alonso. 6. Picnic: Mrs. Teobaldelli, Mrs. Heppner, S. Menghini, P. Arrunta. 7. M. Balcázar and Dr. J. Heppner at River Styx.

Page 5. 1996 ATL Meeting (Plate 2, Fig. 1-13): 1. Photo contest entrants. 2. Group photo in front of Doyle Conner Building, home of the Florida State Collection of Arthropods. 3. Dr. J. Adams and his mother (Dalton, GA). 4. Prize winners of the photo contest. 5. Dr. José Clavijo (Maracay, Venezuela), with ATL Director and FSCA Curator Dr. J. Heppner, and Miss Vanessa. 6. Participants listening to a paper presentation. 7. Vice Pres. Dr. T. Emmel presenting a paper. 8. J. Filiatrault (Montreal, Canada, and Largo, FL), Dr. J. Slotten, and Dr. T. Emmel. 9. Mrs. Heppner. 10. Students (Jason Hall, Keith Willmott, and Jaret Daniels) listening to visiting mentor, Dr. A. Platt (Univ. of Maryland, Baltimore, MD). 11. Book sales. 12. P. Eliazar and Dr. J. D. Turner (Hunstville, AL). 13. Break time!



## **BOOK NEWS**

## GEOMETER MOTHS OF TAIWAN and Allied Species from Neighboring Countries. Vol. 1

by H. Y. Wang. 1997. 405pp. Taiwan Mus., Taipei.

Distributed by Flora & Fauna Books, Gainesville, FL. \$45.00 cloth. This new series on Taiwan Geometridae is full color and large format (8 x 11 inches). Text is in Chinese but scientific names are given for each species. Many holotypes are illustrated, and additionally there are color photos of many of the holotypes of species described originally from India and other Asian countries but also found in Taiwan.

## MOTHS AND BUTTERFLIES OF CORNWALL AND THE ISLES OF SCILLY

by F. H. N. Smith. 1997. 434pp, 32 color pl. Gem Publ., Wallingford, UK. \$70.00 cloth.

A complete record of all moths (including microlepidoptera) and butterflies known to occur in Cornwall, southwesternmost England, and its nearby offshore Isles of Scilly. The 32 color plates illustrate some species in nature, plus habitat photos. The text treats 1547 species, giving detailed collection and hostplant records.

#### 70 COMMON BUTTERFLIES OF THE SOUTHWEST

by R. Bailowitz and D. Danforth. 1997. [32pp] unnumbered. Southwest Parks & Monuments Assoc., Tucson, Arizona. Price: \$6.95 paper. This small booklet shows 70 species of the commoner butterflies encountered in Arizona and New Mexico and nearby areas, all illustrated in full color from photos taken in nature.

### BUTTERFLIES OF WEST VIRGINIA AND THEIR CATERPILLARS

by T. J. Allen. 1997. 388pp, 50 color pl. Univ. of Pittsburgh Press, Pittsburgh, Pennsylvania. \$22.95 paper, \$37.95 cloth.

This excellent field guide to butterflies and skippers of West Virginia was released in December 1997. It is especially to be recommended in having 20 of its 50 color plates devoted to the larvae and pupae of various species! The larval photos are taken from nature; adult plates are of set specimens. The text provides identification guidelines, biological and distribution information for each species.

#### CATERPILLARS OF EASTERN FORESTS

by D. L. Wagner, V. Giles, R. C. Reardon, and M. L. McManus. 1997. 113pp. USDA, Forest Service, Morgantown, West Virginia (FHTET-96-34). Price: ? paper.

An excellent full-color coverage of 245 species (210 illustrated from nature) of commonly encountered forest Lepidoptera, including a few butterflies. Coverage is for the eastern United States. Each species has the larva illustrated, together with a brief diagnostic text and notes on its bionomics. The price or source of copies is not noted on the publication.

## PICTORIAL HANDBOOK OF MICROLEPIDOPTERA IN QINGHAI PROVINCE

edit. by Z.-G. Xu. 1997. 186pp. China Agric. & Science Publ. Co., Yangling, Qinghai, China. Price: ? paper.

This illustrated guidebook has numerous line drawings and a synoptic Chinese text. Families treated in this part start with the primitive Microlepidoptera, Eriocraniidae, and progress to Tortricidae, Pyralidae, and Limacodidae. Treatment is for an area of northern China west of Beijing, thus predominantly Palearctic in faunal affinities. Text is only in Chinese, but all illustrated species are accompanied by line drawings of the male and female genitalia.

#### LIVING BUTTERFLIES OF SOUTHERN AFRICA

#### Vol. I. Hesperiidae, Papilionidae and Pieridae of South Africa

by G. A. Henning, S. F. Henning, J. G. Joannou, and S. E. Woodhall. 1997. 397pp. Umdaus Pr., Pretoria, South Africa. \$129.00 cloth.

First in a series of volumes on all the butterflies and skippers of southern Africa, this volume covers three families and 156 species. Later parts will treat other species. The book is large format (9x12 inches) and lavishly illustrated with full color photographs taken in nature of adults and larvae, plus color distribution maps. A landmark book! A series that will be indispensable for anyone interested in the Ethiopian fauna.

## **FORTHCOMING BOOKS - 1998**

## LEPIDOPTERA OF TAIWAN

1998

Vol. 1 - Part 1: Introduction, by J. B. Heppner and H. Y. Wang

The introductory part for this series follows the catalog already published in 1992. This part covers the history of Lepidoptera work in Taiwan, a key to families in English and Chinese, and 60 plates of color photographs of selected species from Taiwan.

Member price is \$81.50 (non-member price: \$125.50).

### CLASSIFICATION OF LEPIDOPTERA

1998

by J. B. Heppner

This work is being readied as a separate book. The planned supplement (Suppl. 3 of *Tropical Lepidoptera* Vol. 4, 1993 [1996]) is only the key to families (\$7.50 for ATL members).

Member price is \$24.50 (non-member price: \$42.50).

#### LEPIDOPTERORUM CATALOGUS (New Series)

1998

edited by J. B. Heppner

This series began again in 1989 with the publication of Fasc. 118 Noctuidae (Poole) [now 124]. Epermeniidae (48) came out in 1996. In 1997, several small families were finished: Neopseustidae (7), Acrolepiidae (55), and Oxychirotidae (62). In 1998, additional parts are expected. Member prices will be nominal for small families (\$1.50 to \$4.50 each, depending on size); non-member prices: \$4.50 to 7.50 each).

#### **PASSINGS**

†**Dr.doc.** Aurelian Popescu-Gorj, 10 October 1997, in Bucharest, Romania. Dr. Popescu-Gorj, 82 years of age, was long-time curator of Lepidoptera at the Grigore Antipa Museum of Natural History, in Bucharest. ATL members will recall his 1996 article in *Holarctic Lepidoptera* describing the history and holdings of the Lepidoptera collections of the museum. He published numerous papers on the Lepidoptera of Romania, especially also on some Pyralidae and Noctuidae from the region. In an earlier career, before transferring to the Antipa Museum, he was for many years a fisheries ecologist for the Danube River water authority in the Danube Delta of Romania.

## **NOTICES**

Satyrinae Project: cooperation is sought on a project to document all relevant data on the systematics, faunistics, zoogeography, genetics, and immature stages of Satyrinae. Authors are asked to send reprints of relevant papers. Specimens of any species worldwide are also sought for morphological studies (damaged specimens are acceptable, too). Contact Dr. Peter H. Roos, Ruhr-Universität Bochum, Inst. Physiologie/Chemie, Abt. Bioenergetik, MA2/136, Universitätsstr. 150, D-44780 Bochum, Germany. FAX: (48-234) 709-4314. e-mail: Peter.H.Roos.@ruhr-uni-bochum.de.

#### **MEETINGS**

Societas Europaea Lepidopterologica: March 22-26, Malle (Antwerp), Belgium Association for Tropical Lepidoptera: April 17-19, Gainesville, Florida, USA Lepidopterists' Society: July 31-August 2, Eureka, Illinois, USA.