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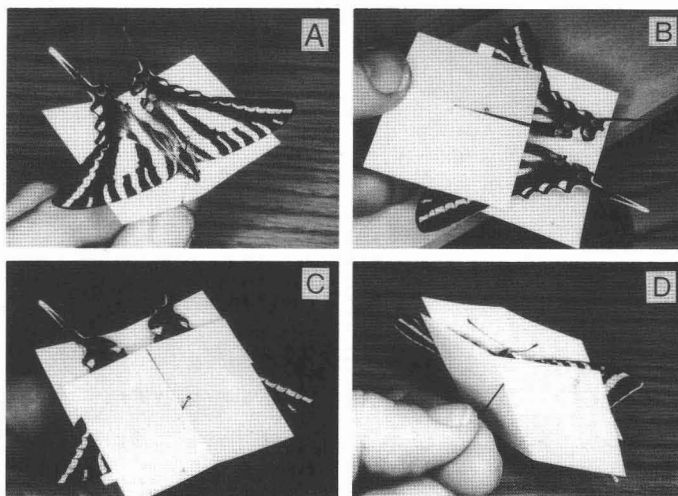
Special Techniques

AN ALTERNATIVE METHOD TO PAPERING SPECIMENS

The use of paper envelopes or triangles for storage of field collected specimens has been the established procedure among most amateur and professional lepidopterists. Although this method has its practical advantages for saving space and protecting specimens until they can be relaxed and mounted properly, many of us experience the disappointment of achieving only mediocre mounts from relaxed papered specimens. It is not uncommon for wing tears or breaks to occur when attempting to align the wings. These difficulties occur because the flight muscles have dried so thoroughly that relaxing fails to impart the mobility required to move the wings freely through 2 spatial planes: 1) vertically, when the wings are opened revealing the upper surface and 2) horizontally, when the wings are pulled forward on the spreading board with the set pins.

I discovered that spreading relaxed pinned specimens that had dried with the wings positioned nearly horizontal was much easier than spreading relaxed papered specimens. Noting the relative ease at which these specimens were mounted, I proceeded to develop a simple system that uses 2 opposing paper rectangles to hold the wings of freshly pinned specimens horizontally until they dry completely. After a freshly killed specimen has been pinned, a rectangular strip of medium weight paper creased along the center line is pinned beneath the specimen with the crease oriented parallel to the body (Fig. A). This strip prevents the wings from folding downward and should be cut to a size that is approximately 2/3 of the wing spread of the specimen. The crease accommodates the legs, thorax and abdomen. A second or top strip is cut to approximately the same size as the bottom strip and creased similarly. However, to enable this strip to be positioned and pressed against the bottom strip, a slit is cut about 1/2 the width of the strip along the crease to allow the strip to be slid onto the mounting pin (Fig. B). This maneuver can be tricky, particularly when attempting to place the top strip on pinned specimens that have their wings folded vertically. In that case, gently blow the wings apart and downward, and slowly slide the top strip into position. With a little practice/patience, you should become accustomed to accomplishing this maneuver routinely. After the top strip has been slid onto the pin and the pin contacts the end of the slit, push the top strip downward until it presses securely against the bottom strip. This procedure immobilizes the wings by securing the wing tips

(Fig. C). The wings can be manipulated and aligned prior to pushing the top and bottom strips together. Surprisingly, the edges of the paper rectangles which contact the wings do not smudge the scales or crease the wings. The forward section of the top strip covers the head and protects against antennal breakage until the specimen is relaxed (Fig. D).



Specimens prepared in the field using this technique can be pinned into an insect storage box and shingled to economize on space. I found the strips to be a convenient means for recording (data entered in pencil before specimens are prepared) locality, date of collection, ecological information, etc.

When relaxing dried specimens use relaxers that can accommodate pinned specimens, leaving the strips intact and remove after 12-24 hrs. Most specimens, with the exception of heavy bodied skippers, should soften in about 1/2 of the time required for papered specimens. The shortened relaxing period certainly reduces the turnaround time required for processing large numbers of specimens.

Operationally, the method I have described herein may be impractical to volume collectors because of time and space requirements. However, for those of us who generally collect small series of specimens and enjoy preparing quality material, this method is most workable and rewarding. The method works best for medium sized species (i.e., nymphalids and larger lycaenids), but has met with limited success with skippers, particularly the heavier bodied species.

Richard P. Meyer, Ph.D.
Assistant Research Entomologist
University of California, Berkeley

MISCELLANY

THE BUTTERFLIES OF WEST CENTRAL ILLINOIS Supplement and Corrections

Three additions and/or corrections to "The Butterflies of West Central Illinois" (Sedman, Y. and D. F. Hess. 1985. Western Illinois University, Series in Biological Sciences, No. 11:1-120) are necessary, and are as follows:

1. Six skipper specimens were identified as *Lerodea eufala* (Edwards). One from Quincy, Illinois collected by the late Edwin Tryon in late summer, 1938 was photographed as representative of that species on Plate VI, fig. 7. M. Minno and J. R. Heitzman have kindly corrected our error and have identified the illustrated skipper as *Nasira lherminier* (Latreille). This is a new record for west central Illinois. The remaining five specimens are correctly identified as *L. eufala*.
2. Another new record was taken by us approximately 3.8 miles south of Illinois Route 36 and just east of Hillview Road in Scott County on May 23, 1985. One female specimen of *Amblyscirtes hegon* (Scudder) was collected on a grassy trail adjacent to sand-loess prairie on the north and a densely wooded ravine on the south. Although it is a new record for west central Illinois, it had been collected earlier, just to the south, in Jersey Co. (Irwin, R. R. and J. C. Downey. 1973. Annotated Checklist of the Butterflies of Illinois. Ill. Natur. Hist. Surv. Biol. Notes 81:1-60.). An additional record of this species was observed at a grassy seep in Pere Marquette State Park on May 2, 1987 by D. F. Hess, also in Jersey Co.
3. A new Lycaenid record for west central Illinois, a single male *Incisalia niphon* (Huebner), was taken by Maria Ploneczynski and Drew Hildebrandt in Sand Ridge State Forest (Main Campground), Mason County, April 5, 1986, on planted *Pinus strobus* (White Pine), a larval host of this species. This was the only individual observed. Nearest previous records were taken several hundred miles to the south in Jackson and Pope Counties, Illinois (Irwin and Downey, 1973) and several hundred miles to the north in Columbia County, Wisconsin (Ebner, James A. 1970. Butterflies of Wisconsin. Milwaukee Public Museum Popular Sciences Handbook No. 12:1-205.) Pine plantations are abundant in the sandy regions of Mason County and it may be conjectured that either the *I. niphon* was a stray from hitherto unrecognized colonies nearby, or that the immature stages were introduced from elsewhere on young planted pines and imagoes dispersed elsewhere, including Sand Ridge State Forest.

Thus, there are records for two additional skipper species in west central Illinois, *N. lherminier* and *A. hegon* and one elfin species, *I. niphon*. Plate VI, fig. 7, of "The Butterflies of West Central Illinois" illustrates *N. lherminier*, not *L. eufala* as published. There are now at least 108 butterfly species recorded in west central Illinois.

David F. Hess and Yale Sedman
Western Illinois University
Maria Ploneczynski and Drew Hildebrandt
Univ. of Cincinnati, Medical Center
Cincinnati, Ohio

BUTTERFLIES NEWSWORTHY AGAIN

From the Los Angeles Times of Feb 6, 1988, under the heading "Butterflies: New Weapon in Cocaine War?" was the following Reuters release with a London dateline. "Cocaine barons in Peru have seen more than

\$37 million worth of the plant that produces the raw material for the drug destroyed in recent months by butterflies.

"According to the New Scientist magazine published here this week, swarms of tiny white butterflies have destroyed more than 50,000 acres of illegally grown coca plants in Peru. An estimated 321,000 acres of coca is cultivated illicitly in the Peruvian jungle.

"The voracious butterflies, known locally as *malumbia*, feed exclusively on coca leaves. The magazine said the Peruvian government has asked university researchers to develop a way of propagating the insects to help fight the drug traffic."

Thanks to Sandy Russell for sending the item on to the NEWS.

ATYPICAL NECTARING BEHAVIOR IN 2 SPECIES OF SPHINGIDAE

Hyles euphorbiae (L.) and *Hemaris diffinis* (Bdv.) have been observed and photographed as taking nectar while sitting on flowers. In contrast to the usual, for Sphingidae, typical hovering over the source of nectar, this is an "aberrant" behavior, probably only rarely observed and photographed.

George O. Krizek



Hyles euphorbiae (L.) nectaring on *Cirsium*, Asteraceae. Picture taken at 14:00 local time in Ifrane, Morocco, May 8, 1987.



Hemaris diffinis (Bdv.), nectaring on *Pontederia cordata*, Pontederiaceae. Picture taken at 12:00 noon in Montgomery Co, Maryland, July 31, 1987. White arrow shows the uncoiled proboscis.

BUTTERFLY FLUORESCENCE IN ULTRAVIOLET

Some yellow and near white flowers, by differences in reflection vs absorption of ultraviolet light, show designs visible to insects and recorded by photography but not directly visible to the human eye. *C. philodice* and *C. eurytheme* have been characterized by UV absorption (R. E. Silberglied and O. R. Taylor, *Nature* 241, # 5389, pp 406-8 (1973)). The present note reports an entirely different effect when UV light is absorbed by pigments or other butterfly structures which are thereby activated to give off light of longer wavelength (fluorescence) which is directly visible to the human eye. The non-fluorescent white wings of *P. rapae* may be used for comparison visually and in photographs to detect weak fluorescence.

With the availability of pocket-size, inexpensive ultraviolet lamps (e.g. 7 x 1½ x 1½ inches, including batteries) much more study of biological structures in the classroom, lab and field will be expected by radiation shorter than the visible. Earlier, more expensive UV lamps, used for examining luminescence of minerals, postage stamps, antiques, art and in medicine, have required 110 volts or heavy batteries. My observations below were made with a micro-lamp obtained from Merritt's Antiques, Inc, Douglassville, PA 19518. I find that its near-UV radiation (300-400 nm) is free from short UV injurious to the eyes (254 nm, etc).

The white and yellow areas of wings of a number of butterflies show white to yellowish fluorescence, for example the yellows of the swallowtails, *P. xuthus* (specimen 30 years old), *P. zelicaon* and *P. palamedes*. However, light areas of six other swallowtails showed no fluorescence. Somewhat less bright whitish fluorescence was shown by the silver spots of *S. cybele*, *S. aphrodite*, and *S. idalia*, the white band of *B. arthemis* and the white spots of monarchs. In these butterflies, apparently the near-UV present in sunlight produces fluorescence to enhance brightness, analogous to that obtained by the addition of synthetic blue-white fluorescing agents to paper, plastics, fabrics and to the laundry as practiced commercially since the 1950's. The brightest fluorescing Lepidopteran material which I have observed in darkness with this UV lamp is the bright yellow of some pupae of *B. philenor* grown on Dutchman's pipe vine and formed in presence of a light background.

The wings of *C. philodice* and *C. eurytheme* do not fluoresce, but with dilute aqueous ammonia they give beautiful blue-white fluorescing solutions of pterin derivatives. Note that chlorophylls of green plants also fluoresce only when in solutions, as with alcohols.

C. E. Schildknecht, Chemistry Dept.
Gettysburg College, Gettysburg, PA



PLETHORA OF PALAMEDES . . .

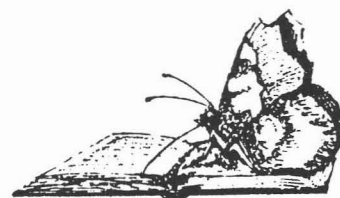
For the past two seasons here in Brunswick, Georgia, *Papilio palamedes* has been extremely abundant. A left turn on to a dirt road off of Cate Road in Glynn County is a swampy area and harbors *P. palamedes* in immense numbers. The area is covered with Rosebay trees on which the larvae feed, and the atmosphere is hot and humid with an occasional breeze. After a good rain, you can count 25 to 30 specimens in one pass. They can be seen feeding at muddy areas and on thistle blooms. In the past two seasons, I have taken around 75 specimens (3 to 1 males to females) for my collection and for sale or exchange. And they still teem in abundance. Many other species of butterflies can be found there, but it is the *palamedes* that rule the area. Both spring and summer forms are abundant and females can be taken in late afternoon quite often. I don't know how long this population explosion will last as the area is starting to be developed. It has always been an untouched area allowing many species to take root and thrive very well. But now, like most other butterfly

habitats, civilization is creeping up and taking over the area. But, I believe the next 3 or 4 years will still provide good collecting in the Cate Road area, and I am sure it would take a good deal longer to wipe out the *palamedes*. It is still a good area where a desirable species can live in harmony with the environment and thrive in great numbers.

Michael Benton
Brunswick, Georgia



Books



BOOK REVIEW

The Lives of Butterflies by Matthew M. Douglas, 1986. xv plus 241 pp and 16 pp of color photographs. University of Michigan Press, Ann Arbor, Michigan, USA. Hard cover, \$45.00. This is an attractive, easy to read book intended for both the professional and amateur lepidopterist. It contains a wealth of information about butterfly biology, enhanced by explanatory line drawings and frequent references to recent research literature, plus excellent photographs which illustrate various biological stages of butterflies and different modes of behavior. There is an extensive glossary and an excellent bibliography plus both species and subject indices. I can speak only as an amateur and in this sense I found the book quite technical, but still easy to understand as the material covered is presented in a clear and concise way. The evolution of insect wings is discussed in the first chapter, along with theories on the origins of true butterflies. Next, detailed explanations of the stages in metamorphosis are presented. One chapter deals with the aspects of survival while another discusses butterfly communities in regard to their population, structure, dispersal and migration. Parasites, parasitoids, predators and the defenses utilized against these decimators are discussed, as are also the theories pertaining to the whys and wherefores of speciation and mate seeking behaviors of different species. Coevolution theories pertaining to butterflies and their host plants are also described. For the amateur who wishes to learn more about the biology of butterflies without resorting to college classes in entomology, this book is invaluable.

June D. Preston

NEW BOOK

MARIPOSAS MEXICANAS (Mexican Butterflies) by Roberto de la Maza Ramírez. This is the first important illustrated contribution to the general knowledge of the Mexican Rhopalocera. Over 600 species are illustrated in full color (photographic plates) and natural size. It has selections of the most representative, endemics and beautiful butterflies of Mexico; including the recently described taxa since 1950 to date. It offers information about the Mexican lepidopterology history and the importance of the butterflies in the prehispanic art, and also provides valuable collecting background information on Mexico, including vegetation and principal collecting locations. The *Book's characteristics*: Size 11" x 9", spanish text, 300 pp., 58 text color photographs, 3 maps, 67 color plates. Hardbound, Hardcover. Price \$60.00 US dollars plus shipment (\$5.00 US dollars). Send Orders to: Javier de la Maza E., Bochil 340, Col. H. de Padierna, C.P. 14200, Tlalpan, D.F., Mexico.

From The Editor's Desk

June Preston



Spring has finally come to Kansas in the heart of the United States, and I saw a *Pieris rapae* flitting through my neighbor's yard yesterday. By the time this issue of the NEWS reaches the bulk of the Society membership, Spring will have arrived almost everywhere in the Northern hemisphere and in many places it will even have slipped into Summer. Many of us will be planning our summer collecting trips or trips to some of the Society meetings. Some will already have been successful in the field since there are many areas where the collecting season doesn't depend on when the last of the winter snows melt. Hopefully everyone will have a good collecting season that will be reflected in next year's Season Summary.

I have been asked to run a listing of lepidoptera on the Endangered Species List and the CITES List. The CITES listing appears elsewhere in this issue. The listing from the Federal Register of May 22, 1984 appears on pg 47 of NEWS #3, 1985. An updated change of status to this list appeared on pg 8 of NEWS #1, 1987, while on pg 5 of the same issue, part of an official letter was quoted regarding the removal of one species from the list of threatened or endangered species. The most recent update appeared in NEWS #1, 1988. I believe it is not necessary to print these lists again at this time since all of these issues are readily available.

Following is a letter which should be of interest to Society Members. As usual, the opinions expressed therein are solely those of the author and do not in any way reflect the policies of the Society.

Dear June Preston:

Each issue of NEWS of the Lepidopterists' Society makes for interesting reading.

This past summer, for the first time, I raised *H. columbia* caterpillars to cocoon. Larch trees are plentiful in our area. Each stage of metamorphosis from the mating of the *H. columbia* moths to cocoon was photographed. 73 of the slides were put in a carousel thus completing the slide sets on the life histories of all of the Saturniidae moths of North America - a project I started in 1955.

Each year I raise between 25 and 30 sleeves of caterpillars to cocoon - *H. cecropia*, *A. polyphemus*, *A. luna*, *C. promethea*. I started collecting insects and raising the Saturniidae moths in 1931 after reading Gene Stratton Porter's book *Girl Of The Limberlost*. She had her own silent movie company and featured two of her books *Freckles* and *Girl Of The Limberlost* in silent films - which I saw as a boy. I am now in my 70's. I may cut back on rearing next year.

When I lived in Hicksville, New York, where my Museum is located, I reared *S. cynthia* and *A. io* and species from other areas of N. America and also a number of foreign species. Also, while in Hicksville, I organized the Long Island Butterfly and Moth Society. In the Gregory Museum, Long Island Earth Science Center, there are hundreds of butterflies and moths on display.

Collecting insects down through the years has been most interesting and educational. Changes have been noted as to the scarcity or disappearance of caterpillars and cocoons of the Saturniidae moths from certain areas. Each year in our area I seed it with female moths, eggs and caterpillars. One day last summer between 40 and 50 *promethea* males came to the "calling females" in their cages. This is the largest number of male moths that I ever had come to calling females at one time.

Dr. Edmund Brower, who lives in Augusta, Me., in past years had much of his research published in the *Journal* of the Lepidopterists' Society. He is one of the

foremost entomologists in the country. I used to go on field trips with him to collect insects, wild flowers and minerals. He is now in his late 80's or early 90's.

Sincerely, Gardiner E. Gregory



Ripples

Jo Brewer, Ed: 257 Common St, Dedham, MA 02026

Dear Jo:

I found the following quotation interesting, and wonder if anyone cares to comment on the subject. The observation was made on the Onoro River in British Guiana (now Guyana), near the headwaters of the Essequibo River and the Brazilian border in late September, 1952.

"A large bluebottle, sunning itself on a stone, was suddenly pounced upon by a long-tailed brown skipper, and carried off over the bushes. I tried to see what happened next - but both had disappeared. It was an extraordinary occurrence: it looked suspiciously as if the skipper were a carnivorous butterfly, or at least a bloodsucker - for some moths, after all, have toothed tongues with which they scrape away the skin of a fruit before imbibing its juices" (*Wai-Wai* by Nicholas Guppy. Penguin Books 1961, p. 91).

I would predict that a skipper which captures large flies would have legs similar to those of dragonflies and robberflies: abnormally long, strong, and with a well developed array of spines and hairs. A toothed proboscis is also a possibility. The strong, fast, and agile flight of skippers would make the role of aerial hunter possible.

As far as I've been able to determine this is the only suggestion of carnivory in a skipper. Lepidopterists working in the Neotropics might find this possibility intriguing.

Yours sincerely, Cris Guppy
Biocollections (Entomology)
Royal British Columbia Museum

Dear Chris - I guess a butterfly with the legs of a Dragonfly and teeth on his tongue, that is addicted to drinking blood, might be catalogued as the Dracula of the insect world! Any and all clues will be welcomed! Jo Brewer, Ripples Ed.



Research Notices

● WANTED: Correspondence with anyone collecting, rearing or commonly encountering any heliothine noctuids (except *Heliothis virescens* and *Helicoverpa zea*). For our molecular and morphological systematic studies on the subfamily, we are seeking information on local abundance of species. We also seek cooperators who might be willing to provide live material; we would cover shipping and associated expenses. Investigators are Robert Poole (USDA c/o National Museum of Natural History), Milton Huettel (USDA Beltsville, Maryland), Charles Mitter; contact: Mitter, at the Department of Entomology, University of Maryland, College Park, Maryland 20742.

● **WANTED:** Parasitic wasps reared from mummified caterpillars. For revision of braconid genera *Aleiodes* and *Rogas*, which mummify lepidopteran larvae. Mummified host caterpillars shrink to smaller than normal size, but remain inflated when dry and retain identifiable characteristics. Wasps emerge through a circular emergence hole cut near rear of mummy. Please send wasp, mummy, data, name of host caterpillar and host plant (if known). Wasps can be point-mounted or preserved in alcohol. Scott R. Shaw, Museum of Comparative Zoology, Harvard University, Cambridge, MA 02138.

● **REQUEST FOR USE IN THREE YEAR PROJECT:** FULGORIDAE (PLANTHOPPERS) for a New World revision of the family, at present with 64 genera and 250 species. Since there are more lepidopterists than homopterists (3 maximum) collecting at light in the American tropics, I would like to appeal to your good nature and interest in scientific cooperation to collect fulgorids when you see a specimen so my opportunity of studying both sexes and a series are increased. They do jump and fly, but I've had best luck putting a glass tube over them with my fingers on the sides, so they jump into the tube thinking it is a clear escape route. Gifts or loans acceptable, mounted or unmounted, preferably dry, but also in liquid preservative. Please include full data. Lois B. O'Brien, Adjunct Professor, Entomology, Florida A and M University, Tallahassee, FL 32307.

● **WANTED:** Livestock of the Cottonwood Clearwing Moth, *Paranthrene dollii*, a common pest of cottonwood plantations. If anyone knows of a cottonwood nursery or production company that I could contact, the information would also be appreciated. I am studying mating behavior and chemical communication (pheromones) so I need a very large experimental colony. Kathy A. Miktuk, 385 Redding Rd., #152, Lexington, KY 40502.

Notices



INTERNSHIPS AVAILABLE

The Lloyd Center for Environmental Studies is seeking interns for the summer and fall sessions to assist with a continuing light-trap survey and to help develop and conduct population and distributional studies of state-listed rare Lepidoptera (Massachusetts). Housing, project-related expenses and a living stipend are provided to interns. Applicants should have completed their sophomore year in college. Starting dates are May 16 and September 6. For information contact Mark J. Mello, Research Coordinator, Lloyd Center for Environmental Studies, Box 7037, South Dartmouth, MA 02748.

FACULTY POSITIONS AVAILABLE

For more than sixty years the Rocky Mountain Biological Laboratory (RMBL) of Gothic, Colorado, has offered summer courses in field biology to college students for academic credit. Many renowned researchers have taught a variety of classes over the years. The RMBL is now accepting applications for future summer courses of eight weeks' duration. Room, board, travel reimbursement and a stipend are provided. Please contact the Director, RMBL, Box 519, Crested Butte, CO 81224. Further information and application materials will be sent after receipt of a letter of interest.

CITES LISTINGS

The Convention of International Trade of Endangered Species of Wild Fauna and Flora (CITES) has recently added more butterflies to its listings. Anyone wishing additional information to that printed here should contact Staff Biologist Andrea L. Gaski, Traffic (U.S.A.) World Wildlife Fund, 1250 Twenty-fourth St., NW, Washington, DC 20037 USA.

There are two classifications to be considered here. Appendix I species listings require both a local import permit and an export permit from the country of origin. Appendix II species require only an export permit from the country of origin or a reexport permit from the country of reexport. There are at present 95 countries party to the convention, all requiring these permits.

Appendix I listings	Date listed
<i>Ornithoptera alexandrae</i>	2/4/77
<i>Papilio chikae</i>	10/22/87
<i>Papilio homerus</i>	10/22/87
<i>Papilio hospiton</i>	10/22/87

Appendix II listings	Date listed
<i>Bhutanitis</i> spp	10/22/87
<i>Teinopalpus</i> spp	10/22/87
<i>Trogonoptera</i> spp	2/16/79
<i>Troides</i> spp	2/16/79
<i>Ornithoptera</i> spp	2/16/79
<i>O. allotei</i>	2/4/77
<i>O. chimaera</i>	2/4/77
<i>O. goliath</i>	2/4/77
<i>O. mendonialis</i>	2/4/77
<i>O. paradisea</i>	2/4/77
<i>O. victoriae</i>	2/4/77
<i>Parnassius apollo</i> spp	2/4/77
<i>P. apollo apollo</i>	7/1/75

ICZN

The following Application was published in Volume 44, parts 3 and 4 (1987) of the Bulletin of Zoological Nomenclature. Comment or advice on this application is welcome for publication in the Bulletin and should be sent to the Executive Secretary, ICZN, c/o British Museum (Natural History), Cromwell Road, London SW 7 5BD, United Kingdom.

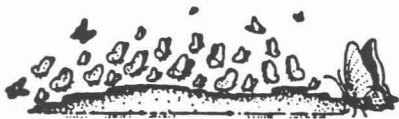
ETHMIIDAE Busck, 1909 (Insecta, Lepidoptera): proposed precedence over AZINIDAE Walsingham, 1906

J. A. Powell, Department of Entomological Sciences, University of California, Berkeley, CA 94720, U.S.A.

Abstract: The purpose of this application is to conserve the long established and widely used moth family name ETHMIIDAE Busck, 1909. The older name AZINIDAE Walsingham, 1906, intended for some species now considered to be congeneric with the type genus of ETHMIIDAE, has not been used since its original publication.

SPECIAL COURSES OFFERED

A special field course, The Amazing Insects of Maine, will be taught from June 26 - July 2 at Eagle Hill Wildlife Research Station, located 35 miles east of Bar Harbor. The course will be taught by Richard Dearborn, senior entomologist of the state of Maine. The course is on a research participation basis (tax deductible). A second course, Natural History Illustration: Acrylics, will be taught from July 3 - 9 by Biruta Hansen, illustrator of the new "Butterflies & Their Flowers" poster of the Smithsonian Institution. The station is beautifully located on a 235 foot high hill at the very edge of the Atlantic Ocean. For more information about this and other courses write or call: Eagle Hill Wildlife Research Station, Dyer Bay Road, Steuben, Maine 04680. 207-546-2821.



Forthcoming Meetings

FIRST INTERNATIONAL ENTOMOLOGICAL TRADE FAIR

FRANCE ENTOMOLOGIE is sponsoring, on Dec 17 and 18, 1988, the first International Entomological Trade Fair of Paris at the Hotel Pullman, 17 Boulevard Saint-Jacques, 75014 Paris, France. A large international attendance is anticipated. Very reasonable nearby accommodations are available. Display space will be allocated according to the time of receipt of completed registration forms. Those wishing to reserve display space or to arrange for accommodations should write for prices and registration forms to FRANCE ENTOMOLOGIE, 18 Sente des Chataigniers F-92380 Garches, France.

39th ANNUAL MEETING OF THE LEP. SOCIETY

The Carnegie Museum of Natural History will host the 39th Annual Meeting of the Lepidopterists' Society from July 14 to July 17, 1988, in Pittsburgh, Pennsylvania. See pg 87, NEWS #6, 1987 and pg 11, NEWS #1, 1988 for information and registration forms. Registration packets with all necessary information are being sent to members upon receipt of their completed registration forms.

PACIFIC SLOPE SECTION MEETING

The 1988 meeting of The Pacific Slope Section of the Lepidopterists' Society is being held at the Pikes Peak Research Station near Florissant, Colorado from Friday afternoon, July 8 till noon on July 10. All members with zip codes of 80000 or greater will be contacted. Others interested should contact Dr Boyce Drummond, Pikes Peak Research Station, Colorado Outdoor Education Center, Florissant, CO 80816 or phone (303) 689-2025 for more information. Also see NEWS #1, 1988, pg 11.

14th ANNUAL XERCES SOCIETY MEETING

The Pikes Peak Research Station near Florissant, Colorado is the site of the 14th Annual Xerces Society Meeting from Tues evening June 21 through Saturday June 25, 1988. See NEWS #1, 1988, pg 11 for additional information.

New Members



BATY, KURT: [address omitted by request]
BOURY, ANGIE: 9 Secluded Circle, Little Rock, AR 72210.
CASEBOLT, E. L.: 5600 East Gregory-Swope Park, Kansas City, MO 64132.
CORETTE, THOMAS: P.O. Box 5, Mountainville, NY 10953.
DAVIS, PATRICIA ANN: 585 55th Avenue N.E., St. Petersburg, FL 33703.
DETORE, JON P.: 2400 52nd Street North, St. Petersburg, FL 33710.
ELSNER, ERWIN A.: Blueberry/Cranberry Research Center, Chatsworth, NJ 08019.
HOLBROOK, GEOFFREY: 198 Addiscombe Road, Croydon, Surrey CR0 7LB, ENGLAND.
HURLEY, JOHN: 719 Cricklewood Drive, State College, PA 16803.
KEENAN, MIKE: 221 Glenwood Crescent, Winnipeg, Manitoba R2L 1K1, CANADA.
KEISER, ROBERT: Adhemar Borinstraat 36, B-2730 Zwijndrecht, BELGIUM.

KEVERLINE, JEFF: 15114 El Rancho Street, Visalia, CA 93291-9306.
KITCHING, IAN JAMES (Dr.): Department of Entomology, British Museum (Natural History), Cromwell Road, London SW7 5BD, ENGLAND.
LEDLIE, PATRICIA: P.O. Box 90, Bean Road, Buckfield, ME 04220.
MEYER, J. HERMANN: Roswies, 8602 Wangen, SWITZERLAND.
MILLER, JAMES S.: Dept. of Entomology, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024.
PETERSON, RAYMOND L.: Audubon Canyon Ranch, Inc., 4800 State Route 1, Stinson Beach, CA 94970-9701.
PITKANEN, JUHANI: Koskikuja 4 A 2, 01600 Vantaa 60, FINLAND.
SIMPSON, ROBERT C.: Rural Route 01, Box 154-B, Stephens City, VA 22655.
WEIKEL, JOHN C.: 10885 Glenbrook, Beaumont, TX 77708.
YEOMANS, EDWARD: 31 Gray Gardens East, Cambridge, MA 02138.

Address Changes



BANCE, RICHARD G.: 10836 Kling Street, #101, Toluca Lake, CA 91602-1426.
DE LA GARZA, ANDRES: Dept. of Entomology, University of California, Riverside, CA 92521-0001.
EVANS, DAVID L.: 322 Common Street, Watertown, MA 02172.
HAGEN, ROBERT H.: 3055 Lakehaven Court, Ann Arbor, MI 48105.
HESTERBERG, RICHARD: 5186 NE 6th Avenue, #704, Oakland Park, FL 33334. [supersedes new address in last issue]
KONDILA, NORBERT: 6415 95th Avenue, Edmonton, Alberta T6B 1A6, CANADA.
LEES, DAVID C.: London Butterfly House, Syon Park, Brentford, Middlesex TW7 5N, ENGLAND.
MARTINEZ, GEORGE EUGENIO: 260 West 25th Street, 2nd Floor, New York, NY 10001.
McGUIRE, WILLIAM W. (Dr.): 8 Broadmoor Avenue, Colorado Springs, CO 80906.
MENSCHING, E. F.: 5416 Grady Drive, Columbus, GA 31907.
MULLINS, DOUGLAS: 207 North Maguire, #141, Tucson, AZ 85710; phone (602) 296-0055.
PEIGLER, RICHARD S. (Dr.): 323 Van Gordon Street, #19-523, Lakewood, CO 80228-1501.
REED, J. P.: 17 Exhall Road, Greystone Park, Borrowdale, Harare, ZIMBABWE.
SMITH, MICHAEL J.: 7320 Amsterdam Avenue, Citrus Heights, CA 95621-1970; telephone (916) 723-5612.
TAYLOR, THOMAS R.: P.O. Box 8042, New Haven, CT 06530.
THURMAN, AL: HHB 17th FA BDE, Box 137, APO New York, NY 09178-5000 [Al notes that he is now stationed in Augsburg, West Germany].
VENEDICTOFF, NADIA: 2837 Webber Street, Sarasota, FL 34239.
WALAS, JOHN P.: 70-A Farrand Street, Thunder Bay, Ontario P7A 3H5, CANADA.

The Market Place

Buy • Sell • Exchange • Wants



Items submitted for inclusion in this section are dealt with in the manner set forth on page 9 of the Jan/Feb 1988 NEWS. Please note that in keeping with the guidelines of the Society, henceforth no mention of any species on any threatened or endangered species list will be accepted in these items. This will include all Ornithopterans now and for the foreseeable future. Items will be accepted from members only and will be printed only once unless entry in the maximum of two successive issues is requested. Please keep items short. A maximum of 100 words is allowed. SASE calls for a self

addressed stamped envelope.

The Society, as always, expects all notices to be offered in good faith and takes no responsibility for the integrity of any advertiser. Any disputes arising from such notices must be resolved by the parties involved outside of the structure of the Society.

ATTENTION, KEN KNIGHT'S CUSTOMERS: I am sorry I made a very embarrassing error. I was selling Hyles euphorbae and Hyles gallii. I confused the pupae. Those who ordered H. gallii actually got H. euphorbae and vice versa. Kenneth R. Knight, 433 Brady N.W., Comstock Park, Michigan 49321.

FOR SALE: Miscellaneous publications dealing with moths or butterflies. For availability lists, send SASE and state interest to M. C. Nielsen, 3415 Overlea Dr., Lansing, MI 48917. Or phone (517) 321-2192.

FOR SALE: Available in Summer 1988, 40-50 species of western Montana butterflies, as well as some moths. For a complete list of the species I expect to have available and a price list, write soon to Craig Odegard, 7385 Beryl Lane, Missoula, MT 59801.

BOOK WANTED: Illustrations of the North American Species of the Genus Catocala by Barnes and McDunnough. State condition and price. Mack Shotts, #1 Med. Drive, Paragould, Arkansas, 72450.

FOR SALE: Catalogue of Lycaenidae & Riodinidae (Lepidoptera: Rhopalocera), by Bridges (1988, 811 pp, 8.5 x 11 in., hardbound). A six-part catalogue of 16475 species-group names in these two families. The bibliography lists more than 4000 publications. Published by, and available from, the author, Charles A. Bridges, 502 W. Main, #120, Urbana, Illinois, 61801.

WANTED TO BUY: Large or small numbers of Papilionidae, Nymphalidae, Saturniidae, all Coleoptera and other insects from U.S.A., Mexico, Central and South America, Indonesia, Papua New Guinea, Australia, India, Japan, Thailand. All correspondence will be answered. Brunetti Giovanni, Via Montevettore 10, 60100 Ancona, Italy.

FOR SALE: 9 picture frames of Butterflies, Moths and Dragonflies and also Damselflies that I mounted myself. I will only sell all nine frames as a set. Most of them are in good shape. There are over 100 species in the 9 frames. Please send a S.A.S.E. for reply. ALSO FOR SALE OR EXCHANGE: Ova of Actias luna, Antheraea polyphemus, Callosamia promethea, Hyalophora cecropia, Hyalophora euryalis and a few others. S.A.S.E. Please to: Mark A. Howe, RR #1, Box 217, Lake Village, IN 46349 U.S.A.

FOR SALE: Ova of H. cecropia, A. polyphemus, A. luna, H. columbia and C. promethea. Also, literature on how to rear them. Still have some stock of H. cecropia cocoons available. Send SASE for price list to Dr. Gardiner E. Gregory, Star Route 79, Box 259, Orland, Maine 04472.

FOR SALE: Ova of A. io neomexicana, and A. zephyria. Things look very good this year. I have a number of cocoons, and should be able to get a number of wild matings. Sorry about last season. S.A.S.E. please. Jim Coleman, 5812 Leta Rd. N.E.; Albuquerque, New Mexico 87107. U.S.A. Phone [505] 345-7279.

OFFERING FOR EXCHANGE: Many rare European Papilionidae in ex-pupa quality offered. Desired are A-1 fresh pairs of the less common American Parnassiinae (i.e. eversmanni, phoebus sternitzkyi, p. behrii, p. apricatus) and better Asiatic Parnassiinae, plus pupae and eggs of Sericanus and Luhdorffia. Write to Nardelli Uberto, Via Cosma e Damiano 9/2, I-38100-Vela-Trento, Italy.

FOR SALE: Evenus coronata (Ecuador) this is one of the largest and most beautiful of the Lycaenids (sapphire blue dorsally & emerald green ventrally), Morpho sulkowskyi (Ecuador), Papilio arcturus (pairs), and many more interesting species. Bred pairs of Papilio bairdii (forms brucei & bairdii) from Utah are still available. For other rare species write for list of Hard-to-Get Lepidoptera of the World. Send S.A.S.E. to: Wayne H. Whaley, Wymount Terrace 8B-477, Provo, Utah 84604, U.S.A.

CORRESPONDENTS WANTED in USA, Central and South America. Interested in regional variation, high altitude entomology; Saturnid cocoons wanted for breeding; will exchange papered specimens of Pieridae, Saturniidae, Sphingidae, Syntomidae, Arctiidae and Limacodidae (A-1 only). Sati J. Patel, St. Dabeoc's Cottage, North Stow, Nr. Bury St. Edmunds, Suffolk, England.

OFFERED FOR SALE: The NEWS Editor has been contacted by Mr Clearwater of Missouri in regard to disposing of 40 issues of the Lepidopterists' NEWS and the JOURNAL of the Lepidopterists' Society dating from 1954 thru 1964. These issues have been treated with tender, loving care and are still very well preserved. They may be purchased as a complete set or as individual issues. For information on which issues are available (a few are missing) and on prices, contact Robert G. Clearwater, 408 Wildbrier Dr, Ballwin, Missouri 63011.

MEMBERS' COMMERCIAL NOTICES

APOLLO BOOKS, LUNDBYVEJ 36, DK-5700 SVENDBORG, DENMARK. The Lepidopterists' bookseller. BUTTERFLIES OF THE WORLD. NEOTROPICAL REGION, VOL. 4 is available now! DKK 1,225. ATLAS OF THE CHARAXINE BUTTERFLIES OF AFRICA. By S.F. Hennig. Publication expected in 1988. Approx. 460 pages. Illustrated throughout in color. Approx. DKK 995. A MONOGRAPH OF THE BIRDWING BUTTERFLIES. By J. Haugum & A.M. Low. Vol. 1: Genus Ornithoptera. 308 pages, 277 figs., 12 color plates, DKK 740. Vol. 2: Troides and related genera. 355 pages. 434 figs. 16 color plates, DKK 940. SPHINGIDAE MUNDI. Hawk Moths of the World. DKK 1170. Do you know ENTOMOLOGICA SCANDINAVICA, an international journal on systematic entomology, and the only entomological journal in the world where you can subscribe to the papers on lepidoptera only! Ask for a free leaflet on Entomologica Scandinavica. Ask for a free copy of our catalogue #6.

FLORA AND FAUNA BOOKS, P.O. Box 15718, Gainesville, FL 32604, USA. Complete natural history book service. All new book list prices reduced 5% or more. Current sale items (until September 30, 1988): Covell, Field Guide to Moths, \$8.95 (pap.); DeVries, Butterflies of Costa Rica, \$16.96 (pap.); Douglas, Lives of butterflies, \$38.95; D'Abbrera, Butterflies of S. Am., \$16.95 (pap); Ferris/Brown, Butterflies of Rocky Mts., \$14.50 (pap.); Gerberg/Arnett, Butterflies of Florida (6/88), \$8.75 (pap); Klots, EG to Eastern Butterflies, \$8.95 (pap); Opler/Krizek, Butterflies East of Great Plains, \$39.95; Scott, Butterflies of N. Am., \$39.95; Shull, Butterflies of Indiana, \$19.95; Tilden/Smith, EG to Western Butterflies, \$9.95 (pap); Heitzman, Butterflies & Moths of Missouri, \$9.95 (pap); Miller, Oaks of N. Am., \$9.95 (pap). Postage/handling extra (\$1, plus 50c/book). Individuals please prepay. Ask for free catalogs.

MICHAEL E. SNOW, Apartado 73, Siquirres, Costa Rica. Collecting and Photographing butterflies in Costa Rica's Atlantic Rainforest (60-550 meters = 200-1800 feet) with all the comforts of a private home. Weekly rates are available for single, or double room, including transport to and from Siquirres, lodging, meals and guide. Expeditions to Tortuguera Canal (Morphos) and other areas extra. Excellent conditions for attracting nocturnal species. Write for brochure and check list of Papilionidae, Pieridae and Nymphalidae, plus cost information.

TRANSWORLD BUTTERFLY COMPANY (LS), Apartado 6951, San Jose, COSTA RICA, Central America. NEW SPRING CATALOG includes additional Morpho, Papilionidae and other Lepidoptera from many countries. Extensive Morpho listing. European butterflies. State interests when writing. GENUS MORPHO PART 1 (P. Blandin) available. NEW 1988 COLLECTING PROGRAM IN COSTA RICA - brochure on request. Send \$1 for Catalog or \$6 for years monthly catalogs/newsletters by airmail.

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DEADLINES: Material for the Jan/Feb issue should reach the NEWS EDITOR by Dec 1 of the previous year, and that for the Mar/Apr issue by Feb 15, for the May/June issue by Apr 1 and for the July/Aug issue by May 1, the Sept/Oct issue by Aug 15 and the Nov/Dec issue by Oct 15. Reports for the SEASON SUMMARY must reach the ZONE COORDINATORS listed on the front cover no later than the 5th of January. NEWS EDITOR is June Preston, 832 Sunset Dr, Lawrence, KS 66044, USA. RIPPLES EDITOR is Jo Brewer, 257 Common St, Dedham, MA 02026, USA.

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INFORMATION ABOUT THE SOCIETY.....

Membership in the Lepidopterists' Society is open to all persons interested in any aspect of Lepidopterology. Prospective members should send the TREASURER, James P. Tuttle, 3838 Fernleigh Ave, Troy, Michigan 48063, the full dues for the current year, \$25.00 US, together with mailing address and a note about areas of interest in the Lepidoptera; student membership (must be certified) \$15; sustaining membership \$35; life membership \$350. Remittances must be in US dollars, payable to the Lepidopterists' Society. All members will receive the JOURNAL (published quarterly) and the NEWS (published bimonthly). A biennial membership directory will comprise the last issue of the NEWS in even-numbered years.

Changes of address (permanent ones only), Additions or Changes in Telephone Numbers or Areas of Interest and Information about Mailing List Rental: Contact the ASSISTANT SECRETARY, Julian P. Donahue, Natural History Museum of Los Angeles County, 900 Exposition Blvd, Los Angeles, California 90007, USA.

Information on Membership and other aspects of the Society must be obtained from the SECRETARY, Dr. Richard A. Arnold, 50 Cleaveland Rd, #3, Pleasant Hill, California 94523, USA.

Requests for Missed Issues (i.e. those not delivered although dues have been paid on time) should be sent to the TREASURER, James P. Tuttle, address above, or the PUBLICATIONS COORDINATOR, Ron Leuschner, address below. Defective issues will also be replaced by the TREASURER. Do not request these of the NEWS editor.

Manuscripts submitted for publication in the JOURNAL are to be sent to Dr. William E. Miller, EDITOR, JOURNAL of the Lepidopterists' Society, Department of Entomology, University of Minnesota, St. Paul, Minnesota 55108, USA. See the inside back cover of a recent issue of the JOURNAL for editorial policies.

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AVAILABLE PUBLICATIONS OF THE SOCIETY..... Order from the PUBLICATIONS COORDINATOR, Ron Leuschner, 1900 John St., Manhattan Beach, CA 90266, USA.

CATALOGUE/CHECKLIST OF THE BUTTERFLIES OF AMERICA NORTH OF MEXICO (Memoir No. 2), Lee D. Miller & F. Martin Brown: includes references to original descriptions and location of type specimens. Members and subscribers, \$10 cloth, \$5 paper; non-members, \$17 cloth, \$8.50 paper, postpaid.

COMMEMORATIVE VOLUME, 1947-1972: a 25-year review of the Society's organization, personnel, and activities; biographical sketches; JOURNAL 25-year cumulative index by author, subject, and taxon; clothbound. Members and subscribers, \$6; non-members, \$10, postpaid.

1986 MEMBERSHIP DIRECTORY (current to November 1986). Biennial directory of members and their addresses, with geographic and interest indices. Not available for commercial use. (NEWS #6 for 1986). \$5.00 postpaid.

BACK ISSUES of the JOURNAL and of the NEWS of the Lepidopterists' Society. For a list of the available issues and their cost, postpaid, send a SASE to the SECRETARY or to the PUBLICATIONS COORDINATOR.