



NEWS

of the LEPIDOPTERISTS' SOCIETY

Number 1
20 Feb. 1976

Editorial Committee of the NEWS

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Death of a Moth: Rejoinder to Virginia Woolf

In her essay "The Death of a Moth," Virginia Woolf dwelt upon her feelings at watching the futile struggle of a "little hay-coloured moth" against its ultimate demise. They may not have been the kinds of feelings which many of us would experience, let alone be able to express in so evocative a manner. Yet Ms. Woolf's perceptions will not be lost on the sensitive lepidopterist who, like her, can say that in a moth "... one saw life, a pure bead."

I had occasion last summer to think more about the dying of a particular moth than I might normally have done. She was a *Cecropia* Moth, which my father found and brought to me on an early summer evening in Denver. She came in the rain, with damp shine on her furry spiracles and moist spots on her salmon bands. Later, after her cocoa-skim wings had dried, she spread them and broadcast the pheromones we could faintly smell.

Placing her in a screened window, I hoped that a male might come to her. She called, and not a male, but perhaps twenty or thirty came brushing and banging at the screen at three-thirty that dawn. I captured a few, all my killing bottles would hold, and watched the rest in genuine awe (for this was my first time) — great, fluttering bigwings over and under the eaves, in and out of the porchlight, slow and strong and altogether too easy to net. Unable to get through to the female, the males tried windows all over the house — her pheromones must have spread down the halls, and out each sleeper's window. Two I took to her, one fresh, one less. "The books" often say that the more wizened males achieve the mating. But two days later, it was the perfect male I found *in copulo* with the female. For that, he became a satisfied specimen; the rejected tatty one flew free for his few more hours.

The newly gravid *Cecropia* travelled west with us to Washington, laying more than 200 eggs along the way. Each evening under her netting she shook and fluttered — calling again those twenty? No western moths ever heeded her aroma on the wind.

Then one night we left her in a Corvallis hotel room as we joined our fellow lovers of moths at the reception for the Pacific Slope meeting. I thought perhaps I should have brought

her along for friends to see, but decided against it: *Cecropia* is a common animal, and by then she was quite battered. When we returned, I found that she had died that night. I regarded her. The lilac wingtips were gone, victims of the incessant nocturnal quivering and the abortive flight attempts. But the chestnut, mouthless face was still downy. Since she died in our absence I was unable to see the last movements, could not try to cipher meaning in them, a *la* Woolf. Yet, reflecting on her longevity as an adult moth, I found that I agreed with the poet: "... when there was no one to care or to know, against a power of such magnitude, to retain what no one else valued or desired to keep, moved one strangely."

"The books" say that saturniid moths, unable to feed, live but a few days. This female *Cecropia* came in the rain on May 30, and she died, after long hot and cold travels, on June 22. I spent nearly three and one-half weeks in her company. As I packed her away into a paper envelope and wrote on it the dry facts which said little about her, a Nighthawk called outside the hotel window. It struck me that this hunting bird would enjoy my moth no more than I had done.

—Robert Michael Pyle

COLIN WYATT KILLED IN PLANE CRASH

On 19 November 1975, Colin Wyatt of Farnham, Surrey, England was killed in an airplane crash on a flight between Flores and Vaxactim in Guatemala, among 21 other victims. He was 66 years old and in excellent physical condition. Eduardo Welling wrote that he and Colin had just scaled the Pacaya Volcano on the border of Guatemala and Escuintla departments; in fact, Colin was returning to spend the holidays with Eduardo when the accident occurred.

Colin Wyatt was a writer, lecturer, safari guide and traveler/collector in some of the most primitive and unusual areas of Asia, the Far North, Africa, Central America, etc. Some of his adventures and collecting trips have been described in the pages of the *Journal* and *News*, yet these must be only a fraction of the stories that could have been told from his active, unusual life.

We send condolences to his daughter, Monica, and thanks to Eduardo Welling, Don Eff and Cliff Ferris who each brought this sad news to the attention of the editor.

THE SPREADING BOARD

By C. V. Covell, Jr.

This column is designed to be a forum for members, especially amateur field collectors with questions or ideas to share, and tips on techniques, equipment, resources, and other topics of general interest to lepidopterists. Your comments and questions are solicited, as well as help in answering questions posed by others in this column. Write Charles V. Covell Jr., Dept. of Biology, University of Louisville, Louisville, Ky. 40208, U.S.A.

This column did not appear in the previous issue of the NEWS because the space was needed for a number of other items. We will try to present this feature as often as possible, but probably it will not appear in every regular NEWS issue. My apologies to those who have had a long wait to see their questions appear.

* * * *

I knew I should not have taken that cheap shot at the Postal Service in the last "Spreading Board," saying "Mark the carton as *fragile* (possibly an invitation for abuse by postal handlers)!" Eugene P. Sheskin, 516 Linden Ave., Teaneck, N. J. 07666 wrote in expressing his sadness at my statement, while realizing that I intended it humorously. I apologize for the crack, which might have been resented by others of our fraternity who are in the Postal Service. Now, to be quite honest, I do not recall in my 26 years as a lepidopterist, any time when a package of pinned or papered specimens, PROPERLY PACKED, failed to get through with minimal damage (a few antennae or abdomens broken if loose in the first place).

* * * *

Dr. Gordon Edmund, Curator, Royal Ontario Museum, 100 Queen's Park, Toronto, CANADA M5S 2C6, contributed the following piece on the subject of "salvaging even hopeless looking greasers" — specimens in which excessive body oils have impregnated body and wings. Perhaps other readers would like to send in their pet techniques for de-greasing:

DRY-CLEANING BUTTERFLIES

While the following is not a new idea, I think it might be of interest to your readers. Many otherwise good specimens are considered to be of little value because the wings are oily. This hides the colours and generally makes detailed study difficult. In some cases papered specimens may be so greasy that the wings adhere so badly they can't be spread.

For several years now I have been using ether to degrease butterflies, with consistently good results. It will not remove certain kinds of stains, but the improvement with greasy specimens is almost unbelievable.

The technique is simple. Fill a jar or beaker with ether (diethyl ether, technical grade) and dip the specimen in it — pin, label and all. Remove, drain and leave out to dry, which takes only a few minutes. Unless more grease later seeps from the body, no further treatment is necessary. The ether will not soften the tissue, so even the antennae are unaffected.

While trying to mount some unusually greasy butterflies, I found the wings wouldn't separate. After 30 seconds in the ether they cooperated perfectly even though they were still wet from the relaxing jar.

I have never found any change in the colour of the specimens as a result of ether treatment, and the used ether never contains any extracted colour. I label the dry-cleaned specimens so that they can be checked in later years, but so far no changes have appeared.

Ether is dangerous in enclosed spaces, so is best handled outdoors and away from any kind of flame. One batch of ether will clean dozens of specimens. It can be disposed of by thoroughly flushing down the drain once it becomes overloaded with grease.

The advantage of using ether over other solvents is that it is harmless to the specimens and is very fast-acting. It is no longer necessary to classify a specimen "grade C" because of grease.

* * * *

One of the biggest problems for developing lepidopterists is the *correct pronunciation of scientific names*. This concern was expressed by Robert Topczewski, 3261 S. 85th St., Milwaukee, WIS. 53227. Those of us with some Latin schooling may have less trouble than those with none; but even with Latin in your background the unfamiliar word compositions can be tough. There are sections dealing with pronunciation in Borror and DeLong's *An Introduction to the Study of Insects*, 3rd Ed. (a 4th due out this year), Holt Rinehart and Winston Inc., New York, pp. 77-79. This book, by the way, is an excellent introduction to the insects other than Lepidoptera. In listing orders, families, and other names (some genera and species), Borror and DeLong use accent marks to aid in pronunciation.

There is no one universally accepted pronunciation for all scientific names, because of disagreement among scholars as to the correct ancient pronunciations, and also because of widespread acceptance of certain pronunciations passed from one lepidopterist to another. Although I know of no treatise on Lepidoptera names only, there is a short article by A. L. Melander (1916), "The pronunciation of insect names," *Bull. Brooklyn Ent. Soc.* 11 (5): 93-101, and coverage of pronunciation of scientific names in R. E. Blackwelder (1967), *Taxonomy — A Text and Reference Book*, John Wiley and Sons, Inc., New York, pp. 231-238, with short bibliography of references to pronunciation on p. 238. The best way to find out the pronunciations generally used is to listen to experienced lepidopterists. This is not possible for many of you, so I hope one of our scholarly members will publish a pronunciation guide for us before too long.

* * * *

A source for *micro-vials for storage of Lepidoptera genitalia* is requested by Steve Kohler, Entomologist, Cooperative Forest Management, Div. of Forestry, 2705 Spurgin Rd., Missoula, MONT. 59801. He wants the kind with a rubber stopper so that the vial can be placed right on the specimen pin. One such can be had from ARTHROPOD SPECIALTIES CO., P.O. Box 1973, Sacramento, CA. 95809 (if my information is not out of date). These vials are of polyethylene, with "silicone rubber stoppers." A more traditional style is glass with cork stoppers, which can be ordered from Bio-Quip Products, P.O. Box 61, Santa Monica, CA. 90406 and possibly other dealers.

Check with these companies for current prices and other information.

* * * *

Incidentally, glueing broken heads, abdomens, and other parts back onto a specimen may prevent successful dissection for study by a specialist. Many professionals have a supply of various sized *gelatin capsules* on hand to put the part in. The capsule with loose abdomen is then pinned under the specimen itself. Capsules can be bought by the box from druggists.

* * * *

Ray W. Bracher, 17145 Cherokee Dr., Granger, IND. 46530 posed this question to the Editor some time back: "How did the name *butterfly* originate?" Some have thought that long ago someone reversed the initial sounds of *flutter* and *by* but that seems very unlikely to me. Dictionaries give the etymology as being from Old English *buterfleoge*, meaning *butter* + *fly*, probably so called because a white or yellow pierid reminded someone of butter. *Webster's Third New International Dictionary* states "perhaps from the belief that butterflies or witches in the shape of butterflies stole milk and butter;" but I cannot cite the source of this theory.



MINUTES OF THE 26TH ANNUAL MEETING OF THE LEPIDOPTERISTS' SOCIETY

The 26th Annual Meeting of the Lepidopterists' Society was held at the University of Massachusetts between 21-24 June 1975.

The combined meeting of the Executive Council and Publications Board was held Thursday afternoon, 21 August, convening at 2:45 P.M. This meeting was adjourned at 5:55 P.M. and was continued again on Friday evening.

Members in attendance at the meetings were entertained at an open house at the home of Dr. and Mrs. Theodore D. Sargent on Thursday evening.

The program began on Friday morning, 22 August, with contributed papers with Theodore D. Sargent presiding. The following papers were delivered:

"Observations on the Schaus Swallowtail and Some Other Butterfly Species in Southern Florida." Charles V. Covell, Jr., University of Louisville, Louisville, Kentucky.

"Single Brood Variations in *Plagadis purpuraria* (Pearsall) and *Eubaphe opella* (Grote)." William D. Winter, Jr., Westwood, Massachusetts.

"Clearwing Moth Borers of Cucurbits (Sesiidae)." W. Donald Duckworth, National Museum of Natural History, Smithsonian Institution, Washington, D.C.

"Swift Moth Courtship: The End of a Myth." John R. G. Turner, State University of New York, Stony Brook, New York.

"Some Aspects of the Biology of the Winter Moths (Noctuidae: Lithophanini)." Dale Schweitzer, Yale University, New Haven, Connecticut.

The Friday afternoon session featured a symposium on Lepidoptera ecology with Lawrence E. Gilbert presiding:

"Some Comments on the Ecology of the Lepidoptera." Lawrence E. Gilbert, University of Texas, Austin, Texas.

"Strategies of Foodplant Exploitation in a Complex of Oligophagous Butterflies." Frances S. Chew, Tufts University, Medford, Massachusetts.

"Inter- and Intra-specific Hybridization of Allopatric and

Sympatric Species of Admiral Butterflies (Nymphalidae: *Limenitis*)." Austin P. Platt, University of Maryland, Baltimore County, Baltimore, Maryland.

"Correlative Studies of Population Structure and Genetics: A New Synthesis." A. Thomas Vawter, Cornell University, Ithaca, New York.

"Communal Roosting in the Lepidoptera." John R. G. Turner, State University of New York, Stony Brook, New York.

"Ecological Problems in Bahamian Butterflies." Harry K. Clench, Carnegie Museum of Natural History, Pittsburgh, Pa.

Dr. Gilbert gave resume of the afternoon session.

On Friday evening a slide fest was held to show slides on Lepidoptera and related subjects.

Saturday morning, 23 August, with Charles G. Kellogg, presiding, a session of contributed papers were presented:

"Macrophotography of Lepidoptera in their Natural Habitat." Thomas K. Gaylord, Georgia Institute of Technology, Atlanta, Georgia.

"Eyeshine, Pupillary Response, and Vision of Butterflies." Gary D. Bernard, Yale University, New Haven, Connecticut.

"Observations on Reflectance and Scale Structure in *Phoebis* (Pieridae)." Arthur C. Allyn and John C. Downey, Allyn Museum of Entomology, Sarasota, Florida.

"Gynandrisms, A Guide to Sexual Expression in the Lepidoptera." Charles L. Remington, Yale University, New Haven, Connecticut.

"Observations on the Ecology of *Hemileuca maia* and *H. lucina* (Saturniidae)." Dale Schweitzer, Yale University, New Haven, Connecticut.

The Saturday afternoon session was begun with the Presidential Address: "To My Fellow Amateurs", by the Society President, Andre Blanchard, Houston, Texas.

The remainder of the afternoon program consisted of a symposium on biology of the *Catocala*, with Theodore D. Sargent presiding. Dr. Sargent gave an introduction to the generic group.

Other papers presented in this session were:

"The Genus *Catocala*: Review and Suggestions for Future Studies." Auburn E. Brower, Augusta, Maine.

"*Catocala*: Evolutionary and Systematic Problems." Douglas C. Ferguson, U. S. National Museum, Washington, D.C.

"*Catocala* and *Papaipema*: Contrasting Strategies of Foodplant Specificity." Charles L. Remington, Yale University, New Haven, Connecticut.

"Collecting *Catocala*: Light vs. Bait at a Single Location." Charles G. Kellogg, West Hatfield, Massachusetts.

"Behavior and Ecology of the Underwing Moths." Theodore D. Sargent, University of Massachusetts, Amherst, Mass.

"*Catocala* as Carriers of Phoretic Arachnids." Asher E. Treat, American Museum of Natural History, New York, N. Y.

"In Memoriam: Sydney A. Hessel." Theodore D. Sargent.

On Saturday evening the Annual Banquet was held at the Campus Center. After dinner door prizes were awarded to some of those present. Charles V. Covell, Jr. presided over the award of the door prizes.

The Sunday morning, 24 August, session with Austin P. Platt, presiding, began with:

"Endangered Pine Bush Lepidoptera. I. The Fragile Ecology of the Karner Blue." Robert Dirig, Cornell University, Ithaca, New York.

"Biennialism in Alaskan Butterflies." Kenelm W. Philip, Institute of Arctic Biology, University of Alaska, College, Alaska.

'A Preliminary Study of the Relationships between Gramineae and Hesperinae.'" Richard A. Arnold, Michigan State University, East Lansing, Michigan.

"The Xerces Society: Present Projects." Jo Brewer, Xerces Society, Auburndale, Massachusetts.

"Butterfly Conservation: A Different Viewpoint." Lee D. Miller, Allyn Museum of Entomology, Sarasota, Florida.

The Annual Business Meeting was held shortly before noon. President Blanchard gave a brief report of the financial condition of the Society. He further stated the fact that he and Ronald Hodges had acted to clarify the problems of presidential succession caused by the Constitutional amendment passed over a year ago. The presidency will pass from Blanchard to Hodges at the end of the present meeting. It was announced that C. V. Covell, Jr., was resigning from the Executive Council at large seat he held since he was already on the Council as Assistant Treasurer. Accordingly, the Nominations Committee will place a candidate for a two-year term on the Council before the membership. Resolutions (p. 6, 6a) were made and unanimously approved. President Blanchard then passed the Society gavel to the incoming President Hodges and left the podium to a standing ovation from all present. President Hodges then adjourned the meeting at 12:30 P.M.

Lee D. Miller, Secretary

Resolutions passed unanimously (K. W. Philip, C. V. Covell, Jr. comprised the Resolutions Committee):

1. Whereas this the 1975 Annual Meeting of the Lepidopterists' Society has been thoroughly successful and enjoyable,

Be it resolved that our thanks be expressed to Katherine

Weiss, Conference Coordinator of the University of Massachusetts, Amherst Office of Continuing Education; and

Be it resolved that our heartfelt gratitude be expressed to Ted and Katherine Sargent for a most enjoyable open house and the many details of the meeting which they so ably arranged.

2. Whereas The Lepidopterists' Society has lost one of its most dedicated members, most faithful servants, and most astute amateur research workers; and

Whereas we, the members of the Society, have lost a close and inspiring friend in the recent death of Sidney A. Hessel;

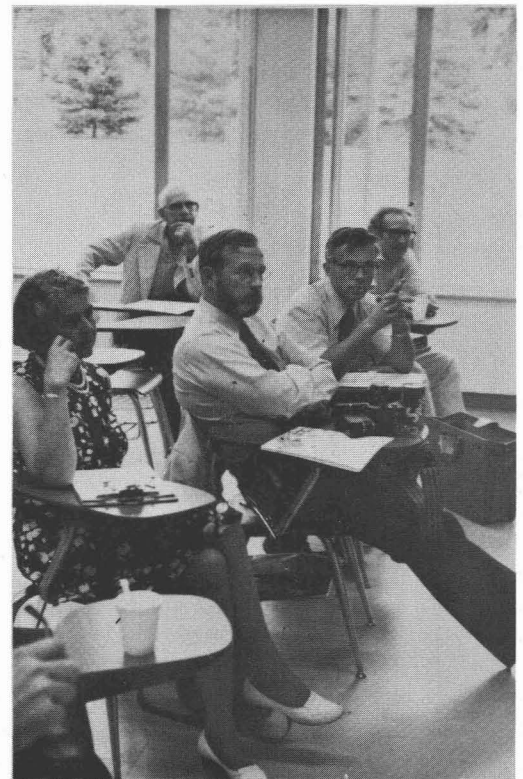
Be it resolved that we who are attending the 1975 Annual Meeting of the Society wish to express our profound sense of loss and respect for Sid, and gratitude for his many services to the Society.

3. Whereas President Andre Blanchard has solved an annoying problem in the implementation of a recent change in the Society Constitution regarding the succession of Presidents at the Annual Meetings, and in doing so has shortened his tenure of office to only four days,

Be it resolved by the Members of the Lepidopterists' Society that we express our warm regards and sincere gratitude to him for this unselfish act.

4. Whereas the Occasional Journal of Paralepidopterology, appropriately entitled *Frass*, has added immeasurably to the enjoyment of those attending the past three Annual Meetings of the Society,

Be it resolved that gratitude be extended to the anonymous editor, contributors and financial underwriters of these delightful pellets. Long may they continue.



1975 Annual Meeting Snaps: (Top Left) Hodges receives gavel from Blanchard; (Btm. Left) Executive Board, (L to R) Miller, Nicolay, Ziegler, Clench; (Right) Executive Council, (L to R) Jo Brewer, Roy Kendall, Ken Philip, Ron Hodges, Doug Ferguson.

BACK ISSUES OF THE JOURNAL AVAILABLE

The Society maintains a stock of back issues of the original *Lepidopterists' News* (vols. 1-12, 1947-1958), which became *Journal of the Lepidopterists' Society* beginning with vol. 13 (1959). Except for No. 1 of Vol. 21 (which is out of print), you may order back issues at the following prices: Volumes 1-24: \$8.00 per volume (Vols. 1-5 litho-printed duplicates of originals)

Volumes 25-28: \$10.00 per volume)

(Volume 29 and thereafter will go for the current price, which now is \$13 to members)

These old issues are chock full of interesting technique notes, biographies of prominent lepidopterists (esp. Volumes 1-5 for these), season summaries, faunal lists, life history notes, descriptions of new species (after Vol. 5), taxonomic revisions, and a wide variety of other topics concerning Lepidoptera. Those who order Volumes 23 and 25 will receive the *Supplements* to those volumes in addition to the 4 *Journal* numbers.

There are also some issues of the NEWS from 1969 to the present available on a first-come, first-served basis. These will be sent as available for \$.25 each, plus \$.25 postage (no matter how many are sent).

Paper-bound (blue cover) copies of the Dos Passos *Check List* (printed both sides of page) or completely unbound (printed one side of page), with supplements, are available at \$5 for members; but supplies are running low. Indicate which you prefer when ordering.

Order from: Dr. Charles V. Covell Jr., Dept. of Biology, University of Louisville, Louisville, Ky. 40208, U.S.A. Send money with orders ONLY for Dos Passos *Check Lists* and *Journal* issues—NOT for NEWS numbers.



SOCIETY OF KENTUCKY LEPIDOPTERISTS HOLD SECOND ANNUAL MEETING

The second Annual Meeting of the Society of Kentucky Lepidopterists was held at the University of Louisville on Saturday, November 22, 1975, with 18 attending. Loran Gibson of Florence, Ky., was elected President for 1976, with Al Brownell re-elected as Secretary-Treasurer, and Charles V. Covell Jr. as Editor of "The Kentucky Lepidopterist," the quarterly newsletter.

A new *DUES STRUCTURE* was approved:

Regular Membership, \$3.00 per year

Associate Membership, \$1.50 per year

Sustaining Membership, \$5.00 or more

The Associate Membership category is designed for those outside Kentucky and adjacent states, who will not be permitted to hold office or vote, but who wish to be on the mailing list and perhaps attend events when possible. They will receive the newsletter.

The suggestion from a South Carolina member, Ron Gattelle, that the Society of Ky. Lepidopterists become a southeastern section of the Lepidopterists' Society, similar to the Pacific Slope section, was discussed, and may evolve later; but the identity of the club will remain for the time being as is.

A Society Symbol involving the male *Diana fritillaria* superimposed on an outline map of Kentucky was approved, the design by Loran Gibson.

Talks on a reared gynandromorphic *S. diana* by Amos

Showalter and on south Florida butterflies by C. V. Covell Jr. comprised the program.

SPRING FIELD TRIP WEEKEND: Natural Bridge State Park, Ky., April 23-25, planned by Gibson, Jim Ettman, and Amos Showalter. We will welcome participation by any of you who can come, members or not. For *membership* in the Soc. of Ky. Lepidopterists, write to: Mr. Al Brownell, Dept. of Biology, Univ. of Louisville, Louisville, Ky. 40208.



"Take a Butterfly to Lunch: A Guide to Butterfly Gardening in Los Angeles," by Julian P. Donahue, in the February 1976 issue of *Terra*, the quarterly magazine of the Natural History Museum Alliance of Los Angeles County. Ten pages, lavishly illustrated with color photographs and paintings of adults and larvae of 19 species of butterflies, with a 17" x 21" foldout color poster. Prices: \$1.00 (plus 35¢ postage) for the entire magazine with folded poster; \$1.25 (plus 95¢ postage) for the poster alone, rolled, in mailing tube. (California residents please add 6% sales tax). Order from Natural History Museum Bookshop, 900 Exposition Boulevard, Los Angeles, California 90007, U.S.A. (Orders for resale, or for 100 or more copies, should be addressed to the NHM Alliance, same address.)

PREPARATION OF GENITALIC SLIDES FOR PHOTOGRAPHY

Frequently it is necessary to photograph genitalic preparations and one may not wish to go to the trouble of preparing the standard balsam mount. If one needs to store the genitalia in vials for future reference, balsam mounting is not a viable approach. I have found the following method useful. Once the genitalic dissection is completed, place the preparation in 95% ethyl alcohol for 1-2 minutes. To make a slide, use the type of microscope slide which has a depression or well in it. These are slightly thicker than the usual microscope slide. Place a large drop of pure glycerin in the well. The genitalic capsule is then placed in the glycerin and a cover glass may now be placed over the well. The preparation can be easily manipulated using fine dissecting needles until it is in the right position for photographing, prior to placing the cover glass. In placing the glycerin, one should be careful not to trap air bubbles in the solution, as they take a long time to clear. It is best to drop the glycerin from a glass stirring rod rather than use a pipette.

The glycerin gives a clear background for photography, and if the genitalia need to be repositioned there is no difficulty. When the photography is completed, the genitalic preparation can be washed in water to remove the glycerin. The capsule may then be stored wet in the usual manner, or dry in a vial. One method that I found convenient is to place the preparation on a piece of blotting paper to dry it, and then store the genitalia in a No. 5 gelatin capsule used for pharmaceutical preparations. The specimen pin is placed through the gelatin capsule and the genitalia are always with the specimen. If further examination is necessary, the genitalia can be removed from the capsule and soaked in water for a few minutes. This method of storage works best for male genitalia and heavily chitonized structures.

C. D. Ferris

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MIGRANT MONARCHS IN THE ATLANTIC BETWEEN CAPE COD AND BERMUDA

The following observations concerning large flights of monarch butterflies (*Danaus p. plexippus*) over the Atlantic Ocean were recorded by Dennis J. Sabo of the Department of Biology, Woods Hole Oceanographic Institution, in 1973.

September 15: 1200 E. D. T.; at Lat. 36°-19.0'; Long. 63°-32.0'. 200 specimens, mostly in flight; those that landed on the sea regained flight after 20-30 secs.; those landing on the ship rested for several minutes.

September 16: 1200-1800 E. D. T.; Lat. 35°-19.0'; Long. 63°-42.8'. Over a thousand specimens flying around the ship; most of them in flight; some rested on the water for 20-30 secs.; many landed on the ship.

September 23: 1000-1200 E. D. T.; Lat. 32°-31.1'; Long. 59°-48.0'. 50 specimens, mostly in flight; a few resting on the ocean for 20-30 secs.; a few landing on board ship.

Many species of butterflies have been recorded flying over the ocean often at considerable distances from land (Williams, 1930, 1958; Johnson, 1969). Of these *Phoebis sennae* is most spectacular as an oceanic migrant.

With respect to the monarch butterfly, it has been shown that this species tends to avoid flights over the oceans (Urquhart, 1960, 1965). However, where there is a large concentration of migrants in a peninsular area that is oriented towards the south, the migrants will fly over the ocean rather than reverse the southerly movement in order to keep to the land (Urquhart, 1960).

As noted by Dennis Sabo, many of the migrants landed on the vessel and a few rested for a few seconds on the surface of the ocean. It has been shown experimentally that monarch butterflies can rest upon a free water surface for as long as thirty minutes, after which time the wings become saturated with water making further flight impossible (Urquhart, 1965). It has also been indicated that migrants, when flying over the ocean far from land, will tend to follow and alight upon vessels, as here indicated by Dennis Sabo. It is in this manner that the monarch butterfly has been able to reach such distant places as the United Kingdom and islands in the south Pacific.

Thus, the observations of Dennis Sabo are the result of a high concentration of migrants moving south from the New England States and concentrating in the Cape Cod area. An offshore wind of 20 m.p.h. at the time also assisted in the flight over the ocean — a similar situation is recorded for Point Pelee in Essex County, Ontario, Canada (Urquhart, 1965). Having thus flown away from land, the migrants continue flight southward at the same time being attracted to offshore islands or passing vessels.

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SIX CALIFORNIA BUTTERFLIES PROPOSED FOR ENDANGERED LIST

A recent Department of Interior survey of possible threatened Lepidoptera has resulted in a proposal to put six species on the official Endangered List. The means and degree of protection that this will afford is still being determined, but hopefully it is a step in the right direction. We will look for more than just a signpost saying: "No Butterfly Collecting". The six species, their localities and problems are summarized:

1. The San Bruno Elfin, San Mateo Co., development of San Bruno Mts. may wipe out food plant, Stone-crop.
2. The Lotis Blue, isolated bogs in Mendocino Co., threatened if land is drained.
3. The Mission Blue, Twin Peaks (San Francisco Co.) and San Bruno Mts. (San Mateo Co.), housing development may wipe out natural vegetation.
4. Smith's Blue, coastal sand dunes in Monterey Co., development and ice-plant introduction.
5. The El Segundo Blue, El Segundo sand hills of Los Angeles Co., only remaining areas are part of Standard Oil or L.A. International Airport.
6. Lange's Metalmark, sand dunes near Antioch in Contra Costa Co., habitat is now restricted to industrial/agricultural land.



MEETING REMINDERS

ANNUAL MEETING, LEPIDOPTERISTS' SOCIETY
UNIVERSITY OF WISCONSIN, MADISON, WISCONSIN
JUNE 24-27, 1976

PACIFIC SLOPE SECTION, LEPIDOPTERISTS' SOCIETY
NEVADA STATE MUSEUM, CARSON CITY, NEVADA
JULY 2-3, 1976

RESEARCH REQUESTS:

- Wanted for host specificity comparisons: Live ova and larvae of *Strymon melinus* (any population). Any rearing records or data specifically stating the abundance of host plants also useful. All contributions and correspondence acknowledged. Glenn A. Gorelick (Biology), Citrus College, 18824 E. Foothill Blvd., Azusa, CALIF. 91702, U.S.A.
- Need information regarding destroyed or endangered habitats of butterflies and moths, for a doctoral dissertation on world conservation of Lepidoptera. Want details of projects to protect or manage rare populations. Robert M. Pyle, School of Forestry and Env.Studies, Yale Univ., New Haven,CT.06511,USA
- Want details of sites in Mass.,R.I.,and Conn. where *Hemileuca maia* or *H.lucina* have been taken in last 20 years, for geographical and habitat study of the two (?) species. W.D.Winter, 257 Common St.,Dedham,MASS.02026,USA
- Need species records, flight dates, localities, county records for butterflies and skippers of Arizona. All records will be acknowledged. Richard Bailowitz, Loba Lodge, Senator Hwy.,Prescott,ARIZ. 86301,USA
- Anyone with specimens of *Mitoura gryneus* from coastal counties of Georgia or S.Carolina, please let me know. Ronald R. Gattelle, 126 Wells Road, Goose Creek,S.C.29445,USA
- Want information associating pupal color and emergence season in *Papilio*. I have indications that pupal color is associated with partial fall broods in *P.polyxenes asterius*. Please write for details. George Balogh, 3607 N.98th St., Milwaukee, WISC.53222,USA
- Want correspondence and exchange of Pyralidae for Ph.D. thesis on Pyralidae. Mrs.V.A.Kirpitch-mkova, 690022 USSR, Vladivostok Acad.Sci.USSR,Far East Science Centre,Inst.of Biology and Pedology.
- Need living material, prefer pupae, of *Pieris napi oleracea* and *venosa* for continuing experimental work on *Pieris* relationships. Please write beforehand. S.R.Bowden, 53 Crouch Hall Lane, Redbourn,Herts,ENGLAND
- Require capture data or field notes for Lepidoptera of Santa Cruz and Reef Is.(Solomons); also Rhop.and Hesperiiidae of San Cristoval Is.,Ugi,3 Sisters,S.Ana,S.Catalina (Solomons). Esp.records of *O.p.urvillianus* and *Taen. phorcas*(Amathus.) from above. Chris Samson, Saruman Museum, St.Giles in the Wood, Beckley, Rye, Sussex,ENGLAND
- For study of *Satyrrium californica* and *S.sylvinus*,need locality records, notes on habitats or food plant assoc.,and specimens (loan or exchange) from specific areas, esp. Mono Lake,Calif., Great Basin-Nevada, and Arizona. Any information is helpful and will be acknowledged. Mike Fisher, 6521 S. Logan St.,Littleton,COLO.80121,USA

The 1976 Membership List will be printed as issue No. 4 of the **News**. If you have moved or would like to change your interests listing, please fill in the form below and return no later than 1 June 1976 to:

Dr. Lee D. Miller
Allyn Museum of Entomology
3701 Bay Shore Road
Sarasota, Fla. 33580

Name and Title _____

Address _____

City _____ State _____ Zip _____

Research Interests:

- Lepidoptera (all) Rhopalocera Macrolepidoptera Microlepidoptera

Special families or genera _____

Life history, parasites, other _____

- Collect Exchange Buy Sell

NEW MEMBERS:

BALTOSSER, William H. Box 3AF, Dept. Biology, N. Mex. State Univ., Las Cruces, N. MEX. 88003
BECKER, Vitor O. EMBRAPA CPAC, Caixa Postal 07/0084, 70 000 Brasilia D.F., BRASIL
DeRAMUS, James K. 2968 Gallant Drive, Apt. 3, Birmingham, ALAB. 35215
DIAS FILHO, Manoel Martins (Prof.) Univ. Federal de Sao Carlos, Depto. Biologia-CP,384;13560 SaoCarlos-SP, BRASIL
DYBY, Susanne D. 6763 Abrego, Apt. 6, Goleta, CAL. 93017
DYER, Harold C., Jr. Box 395, Carrboro, N.C. 27510
ELLIS, Charles H. 4001 Myrtle Ave., Apt. A-5, Camden, N.J. 08105
FISCHER, Ismor 495 W .186th St., New York, N.Y. 10033
HASU, Eka C/O D.A.S.F., Konedobu, PAPUA NEW GUINEA
HENDERSON, L. Tod Polson Sports Center, Polson, MONT. 59860
HENRY, Parker B. 1512 N.E. 105th St., Miami Shores, FLA. 33138
HERBERT, Greg 7322 Prince George Road, Baltimore, MD. 21207
HYATT, John A. (Dr.) 439 Forest Hills Drive, Kingsport, TENN. 37663
INGLES, Rafael Dept. of Entomology, Agr. Exp. Sta., Box H, Rio Piedras, PUERTO RICO 00928
LAMERS, Ramsey A. (III) 1849 Park St., St. Charles, MO. 63301
MONTFORT, Seth 726 College Ave., Boulder, COLO. 80302
OWEN, Matthew A. 1200 Apple Tree Ct., Sonoma, CAL. 95476
SANDS, D. P. P.O. Box 7200, Boroko, PAPUA NEW GUINEA
SCHLOEMER, Jeff 2595 Crestwood (Riverwoods), Deerfield, ILL. 60015
STALTER, William B. 3445 Floyd St., Corpus Christi, TEX. 78411
WEISS, Jean-Claude 26 Rue Emile Zola, 57300 Hagondange, FRANCE
WRIGHT, David M. (Dr.) 412 N. Essex Ave., Narberth, PA. 19072

NEW ADDRESSES:

ACCIAVATTI, Robert E. 12116 Summer Ave., N.E., Albuquerque, N.M. 87112
AZEVEDO, John, Jr. 303 S. 7th St., Patterson, CAL. 95363
DeROSA, Dave E. Butterfly Art Co., 4520 Mataro Drive, San Diego, CAL. 92115
DORSEY, Steve L. 333 S. Hope St., 38th Floor, Los Angeles, CA. 90071
ELLIS, Bruce E. 3176 W. 50th St., Cleveland, OHIO 44102
FULTON, Macdonald (Dr.) 138 Maple St., Columbus, MISS. 39701
HESEL, John H. 123 Santa Maria Ave., Portola Valley, CA. 94025
HESELBARTH, Gerhard Johannstr.6, D-284 Diepholz, W. GERMANY
HOFF, Victoria 4152 Woodbine Terrace, Erie, PA. 16504
HOFFMEYER, Skat (Dr.) Skansedal 81, 3400 Hillerod, DENMARK
KIRKENDALL, Larry Div. of Biol. Sciences, Nat. Science Bldg., Univ. of Michigan, Ann Arbor, MICH. 48104
KUDRNA, Otakar The Plytechnic, Dept. of Biol. Sciences, King Henry I Str., Portsmouth, ENGLAND
LEMAIRE, Claude (Dr.) 42 Boulevard Victor Hugo, 92200 Nevelly s/Seine, FRANCE
McAULIFFE, Kevin 401 Sheffield Rd., #203, Waukesha, WISC. 53186
MOORE, Theodore W. Rt. 3, Box 1550, Odessa, MO. 64076
NAGLE, Ray B. (Dr.) 5135 N. Camino Real, Tucson, ARIZ. 85718
NAKAMURA, Ichiro (Dr.) 48 Old Lyme Drive, Williamsville, N.Y. 14221
NORDIN, Phillip D. 498 Brooks Dr., No. B, Lemoore, CAL. 93245
OMAN, Bruce C. 7040 S. Blue Creek Rd., Evergreen, COLO. 80439
PRASS, Paul F. 650 Perrin Ave., Lafayette, IND. 47904
RAWSON, George W. (Dr.) 10405 Amherst Ave., Silver Spring, MD. 20902
RUSSELL, Paul J. 311 Orchard St., Greenwich, CONN. 06830
RUTOWSKI, Ronald L. Dept. of Zoology, Ariz. State Univ., Tempe, ARIZ. 85281
SAMSON, C. P. J. 116B, Boxley Road, Maidstone, Kent, ENGLAND
SEVASTOPULO, D. G. C/O Reynolds & Co., P.O. Box 95026, Mombasa, KENYA
SHARP, Murphy 2280 N.E. 203rd Terrace, North Miami Beach, FLA. 33180
SORENSEN, John T. Dept. of Entomology, 201 Wellman Hall, Univ. of California, Berkeley, CAL. 94720
SZULMAN, Michael S. 16 Greenaway Gardens, London NW3, ENGLAND
WAGNER, David 24708 13th Ave., Kent, WASH. 98031
WHITTALL, I. Q. 20 Park Ave., Greenwich, CONN. 06830
WINTER, William D. Jr. (M.D.) 257 Common St., Dedham, MASS. 02026

NOTICES:

Members of the Lepidopterists' Society are invited to use this section free of charge to advertise their needs and offerings in Lepidoptera. We cannot guarantee any notices, but all are expected to be made in good faith. Please be brief, clear, and check spelling. Avoid long lists. Generally, notices will be limited to 3 appearances if more than one are requested. The Editor reserves the right to alter or reject unsuitable copy.

FOR SALE: *Antheraea pernyi* cocoons at \$40.00 per hundred (Qty. over 500, \$35). Buyer must obtain importation labels from USDA using application forms which I will provide. Cocoons of *A. luna* and *A. io* at \$40.00 per hundred (Qty. over 500, \$35/C). Pupae of *L. bombycoides* and *D. rubicunda* at 10 for \$3.00 or \$25.00 per hundred. Larry J. Kopp, R.D.1, Klingenstein, PA. 17941, U.S.A.

EXCHANGE: Many species of local Lepidoptera for Lycaenidae of the world. W. W. Gregory, 1373 Hixon St., Oakville, Ontario L6L 1R9, CANADA.

FOR SALE: Seitz Volume 5, American Rhopalocera, English edition. Complete with text and plates, both in excellent condition, bound in half leather, \$650(US). Payment in advance. Packing and postage extra. Stan Dvorak, 8331 Pasadena Ave., La Mesa, CALIF. 92041, U.S.A.

FOR SALE: Large selection of tropical butterflies, beetles, insects. New 1976 catalog, \$1, deductible from order. Will exchange all entomological material. M.A. Zappalorti, 123 Androvette St., Staten Island, N.Y. 10309, USA

FOR SALE: Mounted, named local moths. Minimum order 1000 at \$400 per thousand in series up to 20 of a species. Similar price for 1976 butterflies. S.G. Jewett, Jr., Route 1, Box 339, West Linn, OREG. 97068, USA

FOR SALE: Seitz' Lepid. of the World. Wish to sell as a unit complete and partial volumes 1-11, 13 and 15. Write for detailed description. S. Osmundson, 1926 Bernice Way, San Jose, CAL. 95124, USA

EXCHANGE: Lepidoptera from Oklahoma for other U.S. material. Send list of offerata. Larry Robinson, 8271-B South Yorktown Ct., Tulsa, OKLA. 74135, USA

EXCHANGE: Midwest U.S. butterflies with anyone anywhere. Newell Schwamberger, 9265 Airport Hwy., Monclove, OHIO 43542, USA

WANTED: All living material of American Lepidoptera for scientific studies. Want information on rearing *Danaus plexippus* on cabbage. Angelo Santin, 11 rue Ch. Vaillant, 77680—Roissy-en-Brie, FRANCE

FOR SALE OR EXCHANGE: *Colias*, *Boloria*, *Oeneis*, *Erebia* and Lycaenidae from Baffin Island and Baker Lake, N.W.T., and the Yukon. Also Papilionidae from Admiralty Is., New Caledonia and Celebes, Indonesia incl. *P. blumei*, *dixoni*, *montrouzieri* and *Delias elippsis*. Desire better Papilionidae, worldwide. J.A. Ebner, Box 556, Okauchee, WISC. 53069, USA

TRADE WANTED: Offer SE US Rhopalocera, also midwest, good species incl. *Prob. bulenta*, *Oar. powesheik*, *Satyr. liparops*, *Inc. henrici margaretae*, *L. eurydice fumosus*, *Eup. cymela viola*, *Anth. midea*, *Ph. philea*, *Pap. palamedes*. Ronald R. Gattelle, 126 Wells Road, Goose Creek, S.C. 29445, USA

FOR SALE OR TRADE: One pair of *Ornith. paradisea* in Riker mount, from my own collection, A-1 condition. Trade preferred. Mary Anne Jasinski, 2020 Burlington Ave.-North St. Petersburg, FLA. 33713, USA

WANTED: Beautiful Moths, by J. Moucha and F. Prochazka, Spring Books, 1966. Also Beautiful Butterflies, same authors, 1963. State price. F.H. Weisse, 6 Huron Place, East Northport, N.Y. 11731, USA

FOR SALE: Butterflies from Africa, S. America, Mexico, Malaysia, India, Australia, Philippines and Europe; sometimes livestock, list on request. Robert Keiser, Frederik van Eeden Plein 3, Box 34, B-2050 Antwerp, BELGIUM

FOR SALE: Preserved in 70% isopropyl alcohol: *Pieris rapae*, mixed June beetles, and Japanese beetles. J. Smogilinski, 2705 Hiestler Blvd., West Lawn, PA. 19609, USA

FOR SALE: 1/4 in. plywood panels, 22 x 22, \$5 for 13; Colorpack Polaroid Land Camera, cost \$50, price \$30; Nature Encyclopedia, By G. Fisher, \$10; 5 in. square wooden shipping boxes, write for prices. Donald L. Baber, 1511 Drake Ave., Burlingame, CAL. 94010, USA

FOR SALE: Living pupae of *Pachysphinx modesta* (60¢), *Anisota virginianensis* (40¢), *D. myron*, *P. myops*, *P. excaecata*, *Cr. juglandis*, *Cer. undulosa* (all 30¢). Mr. William Houtz, R.D. #1, Box 581, Pine Grove, PA. 17963, USA

FOR SALE: Many Formosan butterflies, moths, beetles, cicadas, dragonflies, and other dried insects for collection and art work. Mrs. Chang Pi-Tzu, P.O. Box 873, Taipei, TAIWAN (FORMOSA).

WANTED: Butterflies, beetles and other large insects in lots. Worldwide interests, esp. S. American and African fauna. Send list of prices to M.N. Claude Jasmin, 880 Des Zouaves, Quebec, Quebec, CANADA G1R 3J1

FOR SALE OR TRADE: Morphidae, Satyridae, Papilionidae, Pieridae, Hesperidae, Ithomiidae, Heliconidae, Lycaenidae from S. and N. America, tropics to sub-arctic, with data in papers. Also Coleoptera and Odonata. Will exchange for books on insects, or sell. Q.F. Hess, 11 Esgore Drive, Toronto, Ontario, CANADA M5M 3P9

- FOR SALE: Volumes 11-17,21-29 of Journal of Lepid.Society. Two issues missing in Vol.14. Alfred Habegger, 766 Maple St., Lawrence, KANS.66044,USA
- FOR SALE: *Hyalophora gloveri* cocoons, \$1 each or \$80 per 100. Postage additional; indicate if air mail desired. Minimum order \$5. No sales without proof of state permit/approval in AL,AK,CA,CO,FL,GA,HI,LA,MA,MI,MS,NB,NY,OH,SC,TN,WI. Donald J.Dill,Lepid.Co.Ltd.,7316 S.Sacramento Ave.,Chicago,IL.60629,USA
- FOR SALE: Butterflies from E.Canada incl.arctic species. Choice rarities from Jamaica and S.America. All A1,papered, with full data. Limited quantities. Lists on requests. J.Johnstone, Dickson Hill Road, R.R.2, Markham,Ontario,CANADA
- EXCHANGE: Want conscientious contacts for *Catocala*. Can supply A-1 specimens of Michigan *Catocala* with full data, plus other rarities(*Hesperia,E.mitchelli,C.muticum*) for like quality western or southern *Catocala*, this fall. Wayne A.Miller, 1491 North Hills Drive,Kalamazoo,MICH.49007,USA
- FOR SALE: Colorful Philippine and Indo-australasia butterflies at \$100 per 1000-piece box, air mail postpaid. One box limit. Joris Trading Co.,Boac,Marinduque,PHILIPPINES
- WANTED: Up to 100 ova of *Nym.antiopa* and *Lim.astyanax*. Paul F. Pfenninger, 901 Leland St.,New Castle,IND.47362,USA
- WANTED: Up to 10 pupae of *Pap.palamedes* and *Nym.antiopa*, for restocking project. Brett Barrett,P.O.Box 107, Alvaton,KY. 42122,USA
- EXCHANGE: Over 350 species of N.American butterflies and skippers, many choice species, for butterflies I need. Please write for offerata and desirata. L.J.Melton, 5438 High Tide Ct.,Columbia,MD.21044,USA
- FOR SALE OR TRADE: Ova,pupae,papered specimens of rare Sphingidae, worldwide Saturniidae, and local butterflies. Write for free list. WANTED TO BUY: Living material of any species. Good prices paid. All letters acknowledged. Ray Adams, Carretera Principal 139,Tamaraceite,LAS PALMAS DE GRAN CANARIA (SPAIN)
- WANTED: Mid-Continent Lepid.Series nos.1(2),21,29(2),62(2). C.F.dos Passos, Washington Corners,Mendham,N.J.07945,USA
- WANTED: McD.Checklist,Part 2;Microlep.(1939). Clean copy preferred. John B.Heppner, Dept.of Entomology,Univ.of Florida, Gainesville,Fla.32611,USA
- EXCHANGE: Many species of U.S.butterflies to trade with other U.S. and Canadian collectors. William B.Wright, 18 Clinton Place, Woodcliff Lake, N.J.07675,USA
- WANTED: Living pupae or papered specimens of *Anisota senatoria*. Will purchase or exchange papered Lepidoptera from my area. Want to buy "Moths of the Limberlost", by G.S.Porter. Richard S.Peigler, 303 Shannon Drive, Greenville,S.C. 29607,USA
- FOR SALE: Seitz' Macrolep.of the World,Vol.5(American Rhopalocera), English edition with text and plates, \$750. Comstock's Butterflies of California, \$40. Holland's Butterfly Book,\$25. Klots' Butterfly Handbook, \$5. Packing and postage extra. All books in good condition; write for details. Thomas W.Davies, 791 Elsie Ave.,San Leandro,CAL.94577,USA
- EXCHANGE: Desire specific species/ssp. of Plebejinae,Theclinae and Hesperiiidae from western US (esp.Great Basin,NW,Ariz., Calif.). Offer choice Colorado species in A-1 condition incl. *Pap.nitra* (females only),*C.damoetus,S.nokomis nokomis*, *Oeneis* sp. and *E.magdalenae* among others. Send offers and desired sp. to: Mike Fisher, 6521 S.Logan St.,Littleton, COLO.80121,USA
- EXCHANGE: Offer *Parnassius,Colias,Erebia*,Sphingidae,Etc. from Tienshan, Pamirs, Caucasus and Altay for Papilionidae, Morphidae, Heliconidae,*Catagramma*,Saturniidae and *Urania* from the tropics. D.S.Lastochkin, Poste Restaute, Kiev-42, USSR
- WANTED: Correspondence with mid-west collectors interested in *Schinia, Papaipema*, and *Catocala*. Especially interested in distribution, foodplants, habitats, habits and collecting methods. FOR SALE: Ent. News ('36-'59), Bull.Brk.Ent.Soc. ('36-'65), Proc.Ent.Soc.Ontario ('37-'66), Packard's Monogr.Geometridae, Clark's Butterflies of DC, Field's Kansas Butterflies, Diakonoff's Micros of Philippine Is.,McD.'s Checklist of Macros, Dyar's Lep.of Panama(1914),Hoffman's Cat.of Mexican Lep.(3 parts),Comstock's Studies of Mex.Lep.(1960). M. C. Nielsen, 3415 Overlea Drive, Lansing, MICH. 48917, U.S.A. (Tel.: 517-484-3471)

BOOK NOTICES:

- MARIPOSAS DE LA PENINSULA IBERICA (Lepidoptera of the Iberian Peninsula) by M.R. Gomez-Bustillo and F.Fernandez-Rubio. The third volume of this monumental work is scheduled for publication in October 1975, including the life history and distribution in Spain and Portugal of 110 Heterocera sp. (including subsp. and f.) of the following Families: *Cossidae, Epyropidae, Cochlidiidae, Zygaenidae, Thyrididae, Ctenuchidae (=Amatidae), Bombycidae, Endromididae, Attacidae, Syssphingidae, Lemonidae, Lasiocampidae* and *Sphingidae*. De luxe edition written in Spanish, with 330 pages, 300 color plates, and 140 drawings: US\$25.00 included surface postage. Set of First-Second (Rhopalocera & Grypocera, 1974) and Third Volume, special price US\$50! Orders with check to SHILAP, Apartado 331, Madrid, SPAIN.

- BIOGRAFFITI: A NATURAL SELECTION.** By John M. Burns. Introduction by Stephen Jay Gould. Funny, thoughtful, literate, graceful, pointed, ribald, and outrageous light verse on matters of current biological interest, with emphasis on evolutionary, ecological, and behavioral biology and on natural history. This, of course, includes sex. The poems are terse—a quality facilitated by a quantity of punning (on entire phrases as well as on words) which provides extra levels of condensed meaning. Striking use of technical terminology creates no difficulties because terms that might be troublesome are explained in a glossary. The monarch butterfly appears in a piece called "Up the Food Chain." All poems are illustrated with appropriate woodcuts, engravings, and so forth, carefully chosen from a wide range of old works issued mostly between 1550 and 1900. Scheduled for publication, Dec. 1975. Hardbound, ca. 128 pp. \$6.95 from Quadrangle/The New York Times Book Co., 10 East 53rd Street, New York, NY 10022, U.S.A.
- THE BUTTERFLIES OF NORTH AMERICA**, by William H. Howe and twenty specialists. 650 pages, 97 color plates showing 2,093 butterflies, 33 black and white drawings. Discusses all species and subspecies of butterflies in the United States and Canada. Information on geographic distribution, early stages, foodplants, and behaviour. A special section on collecting techniques, mounting and equipment. Standard Edition, \$39.95. Special Limited Edition (200 copies only), numbered and signed by the artist with added print, \$150.00. Available from your local book dealer, or send check or money order (payable to Doubleday) to: Doubleday & Co., Inc., Dept. ZP-510, Garden City, N.Y. 11530, U.S.A.
- THE BIRDWING BUTTERFLIES OF THE WORLD**, by Bernard D'Abbrera. Available now. Comprehensive coverage of all species and races of Ornithoptera, Trogonoptera, and Troides. All species and 90% of the races are discussed and illustrated, including aberrant forms. Some genitalic drawings. All illustrations (except drawings) in full color. Many photographs of live insects in nature, all stages. Complete taxonomic revision. Approx. 268 pages, hard covers in linen, laminated dust jacket, size 11½ x 14 inches. Due to distribution difficulties, the author is making his work directly available from his agent. Price \$50 (Australian) plus \$12 for insurance and surface-air lift postage (14-17 days to N. Amer.). Copies will be autographed and numbered to 500. Contact: L. M. Stokes, Hill House, Highview Road, Ferny Creek, Victoria 3786, AUSTRALIA.
- THE SWALLOWTAIL BUTTERFLIES OF NORTH AMERICA**, by Hamilton A. Tyler. Available now. Approx. 200 Pp. Color plates show 103 Swallowtails, plus other line drawings. Early stages, habits, ranges discussed. Cost: \$5.95 (paper) or \$9.95 (cloth) from: Naturegraph, 8339 West Dry Creek Rd., Healdsburg, CALIF. 95448, U.S.A.
- BUTTERFLIES IN THAILAND:** Vol.1—Papilionidae/Danaiidae, 1973, 93 p., 88 color illus.; Vol.2—Pieridae/Amathusiidae, 1975, 69 p., 128 color illus. Each volume, \$3.55 BRICOUX, Le genre *Zerynthia*, 1975, 83 p., 18 pl., 7 photo, \$13.50 VERITY, Var. geog. et saisonn. papillons diurnes France, Vol.1, 200 p., \$13.50 Postage extra. Many other books, antiq., catalogs free on request. Sciences Nat, 45, rue des Alouettes 75019 Paris, FRANCE
- "Butterflies of Wayne Co., Mich." (Brochure); "Lepid. of Whitefish Point, Mich." (Reprint); "Dist., habits, life hist. of *E. mitchellii*" (Reprint). Send 16¢ postage to M.C. Nielsen, 3415 Overlea Dr., Lansing, MICH. 48917, USA
- BUTTERFLIES OF THE WORLD**, H.L. Lewis, 1973, 320 pp., 208 color plates (w. 6500 photo's), \$14.95 delivered, US only. The Lepidoptera Co. Ltd., 7316 S. Sacramento Ave., Chicago, ILL. 60629, USA
- ANIMAL REALM OF KORNÝ HSSR (INVERT.)**, K.F. Sedych., 1974, in Russian, 192 pp., many black/white dwgs. & photos. 510 sp. Lepid., 950 Coleopt. are listed or discussed, many other orders. NOTE: Has original descriptions/illus. of *Oeneis saepestriata*, *dembowskyi*, *falkovitshi*, *kusnetzovi*, *koslowsyi*, *solopovi*. All but scientific names are in cyrillic letters. One Ruble, 32 kopeks.
- MANUAL OF SCIENTIFIC ILLUSTRATION**, Charles S. Papp, 1976, 350 pp., 1400 figures. Original 1968 edition, a standard text, is now enlarged, with new chapters on photography, cover design and book manufacture. 8½ x 11, a sturdy paperback edition. Pre-publ. \$17.50 plus postage, includes "Magic of Color Printing", a \$7.50 value bonus with 120 pp. and 91 color illus. After July 1976 publication, \$22.50 plus postage. American Visual Aid Books, P.O. Box 28718, Sacramento, CAL. 95828, USA
- Correction: **BUTTERFLIES OF N. AMERICA**, by Howe, available at \$39.95. Julian J. Nadolny, N. Hist. Booksellers, 35 Varmor Dr., New Britain, CONN. 06053, USA
- MITES OF MOTHS AND BUTTERFLIES**, Asher E. Treat, 1975, 368 pp., 5 photos, 150 line drawings. \$35.00, 20% discount to individuals, plus 50¢ postage. Cornell University Press, 124 Roberts Place, Ithaca, N.Y. 14850, USA
- A BIBLIOGRAPHY OF HELICONIUS AND RELATED GENERA**, compiled by J.R.G. Turner. Includes all biological works on *Heliconius*, *Dione*, *Podotricha*, etc. to end of 1975. All major systematic revisions, new form descriptions in last few decades are listed. Annotations show subject matter of each paper. Available for a nominal charge from Dr. John R.G. Turner, Dept. of Ecology & Evolution, State Univ. of N.Y., Stony Brook, N.Y. 11794, USA
- INTERNATIONAL BUTTERFLY BOOK**, by Paul Smart, beautifully produced, informative, only \$19.95; **SWALLOWTAIL BUTTERFLIES OF N. AMER.** (includes Mexico!), by H. Tyler, color illus., \$5.95 paper, \$9.95 clothbound. Add 25¢ postage per book, orders under \$10. Calif. residents add sales tax. Entomological Reprint Specialists, Box 77224, Dockweiler Station, Los Angeles, CAL. 90007, USA

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Memoirs of the Lepidopterists' Society, Number 1 (Feb., 1964)

A SYNONYMIC LIST OF THE NEARCTIC RHOPALOCERA, by C. F. dos Passos

Price:

Society Members, paper covers, Addenda et Corrigenda (revisions of Melitaeinae and portions of Lycaenidae supplied separately), \$5; non-members, \$7.50.

Send to **Memoirs** Editor Dr. Charles V. Covell Jr., Dept. of Biology, Univ. of Louisville, Louisville, Ky. 40208, U.S.A.

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** the full dues for the current year (\$13, U.S.A.) together with full address and areas of interest in Lepidoptera. Remittances in dollars (U.S.A.) should be made payable to The Lepidopterists' Society. All members will receive the **JOURNAL** (published quarterly) and the **NEWS** (published bimonthly). A biennial membership list will comprise one issue of the **NEWS** in even-numbered years. Back issues of the **JOURNAL** may be purchased from the **TREASURER**.

Information on membership may be obtained from the **TREASURER**, Dr. John M. Snider, 3520 Mulldae Ave., San Pedro, CALIF. 90732, U.S.A. Changes of address must be sent to him alone, and only when changes are permanent or very long-term.

Other information about the Society may be obtained from the **SECRETARY**, Dr. Lee D. Miller, Allyn Museum of Entomology, 3701 Bay Shore Rd., Sarasota, FLA. 33580, U.S.A.

Manuscripts for publication in the **JOURNAL** are to be sent to the Editor, Dr. George L. Godfrey, Illinois Natural History Survey, Natural Resources Bldg., Urbana, ILL. 61801, U.S.A. See the inside back cover of a copy of the **JOURNAL** for editorial policies.

Items for inclusion in the **NEWS** should be sent to the Editor, Ron Leuschner, 1900 John St., Manhattan Beach, CA. 90266, U.S.A.