



NEWS

of the LEPIDOPTERISTS' SOCIETY

Number 6
20 Dec. 1976

Editorial Committee of the NEWS

EDITOR: Ron Leuschner, 1900 John St., Manhattan Beach, CA. 90266, USA

SPREADING BOARD: Dr. Charles V. Covell, Jr., Dept. of Biology, Univ. of Louisville, Louisville, KY. 40208, U.S.A.

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NEW EDITOR FOR THE NEWS

After three years of mostly enjoyable service, your current editor is retiring as of this issue. At the last annual meeting, Jo Brewer agreed to take on the task of editing the News. She is actually Mrs. William D. Winter Jr., but prefers to continue to use her "nom de plume" for News work. For those of you that have not met Jo, here is a brief bio-sketch of her many activities.

Jo Brewer began as a writer in the early 1950's, publishing her first book (a children's mystery story) in 1953. She became interested in butterflies when her son caught the one and only *Nym. milberti* ever seen on the island of Islesboro. This led to a fairly complete collection of all the island's butterflies. Later, she joined the Monarch banding program, and reared or banded about 2000 Monarchs. She gradually turned to photographing rather than collecting, and still later to giving talks illustrated with her slides.

She has written for many publications including Audobon Magazine, Lep. Journal, Horticulture and Defenders of Wildlife. Other published books are "Wings in the Meadow" (Houghton Mifflin, 1968), "The Alphabet Butterfly Coloring Book etc." (Xerces Society, 1975), and "Butterflies" (Abrams, 1976), a book for lay Lep philosophers and art lovers.

Jo Brewer has worked with many entomological organizations. She has been a contributing editor to the Lep News for many a year, and has been on the councils of the Lep Society and also Cambridge Entomological Club. She was Associate Director of the Xerces Society at its inception, and has been editor and publisher of their newsletter, Wings, for three years.



These are impressive credentials indeed, and combined with our cordial working relationship of years past, I am happy and confident in turning over the News to our new editor, Jo Brewer.

WRITE TO THE RIGHT PERSON, PLEASE

Many problems are caused when items are sent to the wrong person. Not only is there extra work and expense for the Society, but there will be ADDED DELAY in getting whatever you wrote for in the first place. With several new people taking over AS OF NOW, it is good to review all jobs, functions and addresses. Note that there is just *one correct person* for any communication you might want to send!

Send to NEWS Editor:

1. Articles and items for News
2. Notices (Ads), Research Requests
3. Book Notices

Jo Brewer

257 Common St.
Dedham, MA. 02026

Send to TREASURER:

1. Money for Annual Dues
2. Application to join Society (with Dues)
3. Change of Address

Dr. John Snider

3520 Muldaa Ave.
San Pedro, CA. 90732

Send to PUBLICATIONS Coord.:

1. Orders for Back Issues, public'ns
2. Money for these orders
3. Request to replace copy of News not received

Dr. C. V. Covell, Jr.
Dept. of Biology
University of Louisville
Louisville, KY. 40208

Send to SECRETARY:

1. Correspondence regarding conduct of the Society
2. Statement of Interests for Membership List

(every 2 years)
Julian P. Donahue
Natural History Museum of Los Angeles Co.
900 Exposition Blvd.
Los Angeles, CA. 90007

MINUTES OF THE 1976 ANNUAL MEETING

The 27th Annual Meeting of the Lepidopterists' Society was held at the Wisconsin Center, University of Wisconsin, Madison between 24 and 26 June 1976.

The combined meeting of the Executive Council and Publication Board of the Society was held on 24 June for the discussion of Society matters.

The 25 June morning session began with welcome and announcements from W. L. Gojmerac, William Sieker, G. M. Boush and J. R. Baker. John Beattie gave a brief presentation of the systematic index to the Rhopalocera that he has devised. C. V. Covell announced that back issues of Society publications were available at the meeting, as well as by mail. Robert Pyle announced that the Xerces Society 3rd Annual Meeting would be held on 27 June. J. F. Gates Clarke announced that four insect commemorative stamps would be issued by the Postal Service in 1977.

Mr. William Sieker chaired the morning session which included: "Collecting opportunities in Wisconsin," L. A. Ferge, Wausau, Wisconsin; "Taxonomic meandering," R. D. Shenefelt, University of Wisconsin, Madison; "Mississippi Sphingidae," Bryant Mather, Clinton, Mississippi; "A mutant cecropia moth from Madison, Wisconsin," Virginia E. Dodson, University of Wisconsin, Madison; "Wing measure as a size index in Lepidoptera: the family Olethreutidae," William E. Miller, St. Paul, Minnesota; "Interspecific hybrids: fact and fiction," Lee D. Miller, Allyn Museum of Entomology, Sarasota, Florida; "The maintenance of stability in hindwing diversity in the *Catocala*," Theodore D. Sargent, University of Massachusetts, Amherst, Massachusetts.

The afternoon session, chaired by Dr. Lee D. Miller, included:

"Thermoregulation in *Hemaris thysbe* and *Nathalis iole*," Matthew M. Douglas, University of Kansas, Lawrence, Kansas; "Interesting Sphingidae of Wisconsin," William E. Sieker, Madison, Wisconsin; "Wisconsin clear wing moths captured in sex pheromone traps," Michael Greenfield and Michael Karandinos, University of Wisconsin, Madison; "S. E. M. Photos of Lepidoptera," S. D. Carlson, University of Wisconsin, Madison.

The Business meeting of the Society was convened by President Hodges with the reading of the Treasurer's report. Two matters decided upon by the Executive Council were presented at this time to the membership: 1) Life memberships in the Society will rise to \$250.00 beginning with the publication of the decision; 2) the back issues of the *Journal* will be uniformly priced at \$13 per year, beginning 1 January 1977 (at present issues are sold at varying prices, depending on the year).

The 28th Annual Meeting will be held in Boulder, Colorado on 21-24 July 1977. Invitations have been received for

the following two meetings, Louisville, Kentucky for 1978 and Fairbanks, Alaska for 1979. These invitations have not as yet been acted upon.

President Hodges then mentioned the unfortunate and unexpected death of Dr. Richard B. Dominick and stated that under Mrs. Tatiana Dominick the MONA project was still continuing with the hope of publishing three fascicles during this year and a checklist of the Lepidoptera of North America soon. This checklist will embody some of the data from the forthcoming Miller and Brown Catalogue of the Rhopalocera (*Memoir* No. 2).

The subject of the effect of the Endangered Species Act of 1973 on Lepidoptera and lepidopterists resulted in a lively exchange. Hodges suggested that the *News* be used to inform the membership of the regulations and that perhaps the *News* might be useful as a forum for the views of the members. It was possible that proposed regulations could be published in the *News*, but Miller pointed out that frequently such publication might be too late for members' replies to be considered. He then suggested that the U. S. Department of the Interior place the entire U. S. Lepidopterists' Society membership on the mailing list and that the Department actively seek response from those affected. Pyle suggested that maybe the best way would be to amend the law to delete the "taking" prohibitions on invertebrates and to stress more the habitat preservation aspect of conservation. Covell then mentioned that when insects are placed on "Threatened" status, adults may be collected for non-commercial purposes. No one, however, knows the exact ramifications of this act on lepidopterology at this time.

The final act of the meeting was the presentation of the gavel by President Hodges to the incoming President, S. S. Nicolay. Nicolay then adjourned the meeting.

The morning session on 26 June, chaired by Dr. T. D. Sargent, presented: "Presidential Address: What insects can you identify?" Ronald W. Hodges, National Museum of Natural History, Washington, D. C.; "Color forms of *Malacosoma dissimilis* moths and the possible modes of inheritance," Nancy Lorimer, St. Paul, Minnesota; "The eco-geographic basis for Lepidoptera conservation," Robert M. Pyle, Yale University, New Haven, Connecticut; "Correlation of the Hybrid Purple's occurrence with the Wisconsin Tension zone (*Limenitis arthemis* x *astyanax*)," Kenneth MacArthur, Milwaukee Public Museum, New Berlin, Wisconsin; "The Kentucky Lepidoptera Survey: a progress report," Charles V. Covell, Jr., University of Louisville, Louisville, Kentucky; "From the Gold Rush to the Hollywood Rushes: alchemy and entomology in California: some notes on the history of butterfly farming," J. Oppenwall, Santa Monica, California.

The Society Banquet was held on the evening of 26 June

at the Wisconsin Center. The Master of Ceremonies was Mr. William E. Sieker and the banquet was enlivened by a stimulating address by George Archibald of the Crane Foundation on the preservation of these animals. Seventeen door prizes were then raffled off, the donors of which deserve the highest thanks of the Society. Finally the Resolutions Committee (C. V. Covell, Chmn. and J. F. G. Clarke) made its report and all recommendations were passed unanimously.

Respectfully submitted,
Lee D. Miller, Secretary

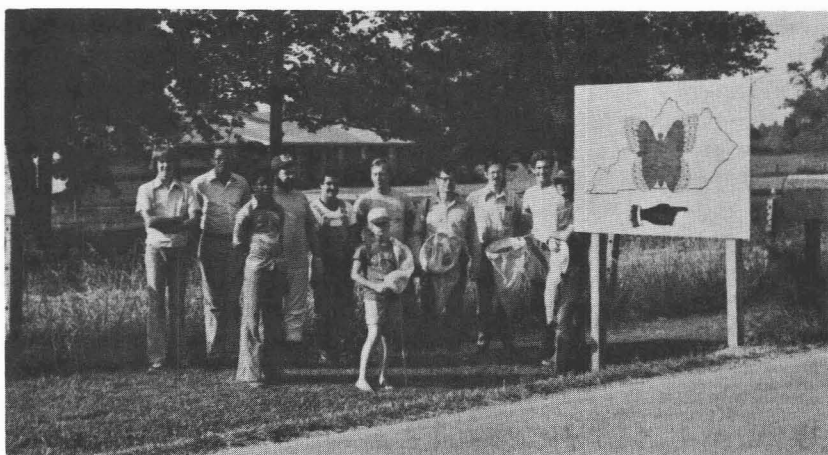
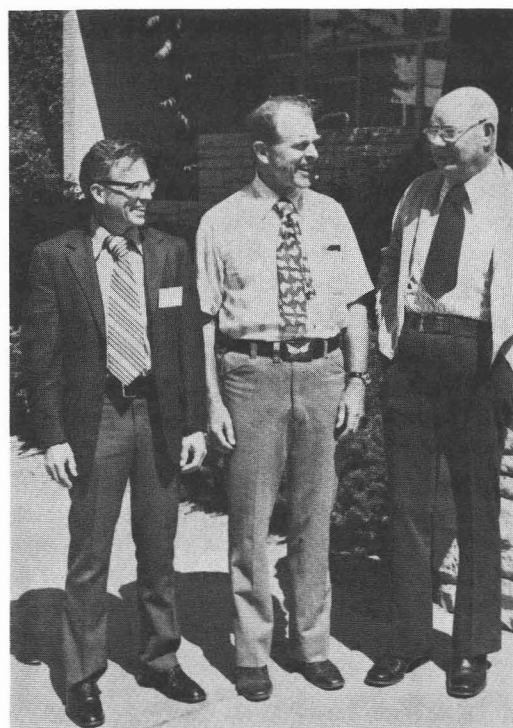
RESOLUTIONS PASSED AT THE 1976 ANNUAL MEETING

1. Whereas we have enjoyed a stimulating and enjoyable Annual Meeting of the Lepidopterists' Society on the shores of Lake Mendota at the University of Wisconsin,
Be it resolved that our heartfelt thanks be extended to the following people who made local arrangements for us: Wm. E. Sieker, W. J. Gojmerac, Roy Shenefelt, John Baker, Jim Mertins, and Mallory Boush.
2. Whereas the Lepidopterists' Society has seen exceptional efficiency and progress during the past year under his Presidency,
Be it resolved that our thanks and appreciation be expressed to out-going President Ronald W. Hodges.
3. Whereas the raffling of door prizes constitutes an enjoyable quality to the Annual Banquet,
Be it resolved that our thanks be expressed to the following contributors of the 17 door prizes given for this meeting: Mr. Homer Edgecomb, Dr. Dave Winter, Mr. and Mrs.

- Floyd Preston, Entomological Reprint Specialists, The Xerces Society, BioQuip Products, and Insect World Digest.
4. Whereas Dr. Richard B. Dominick made incalculable contributions to American lepidopterology by his founding and enthusiastic support of the Moths of America Project, his personal friendship, and his active participation in the Society,
Be it resolved that we, the members attending this Annual Meeting, express our sadness at his untimely death on May 4, 1976, and that we instruct our Secretary to write a letter of sympathy on our behalf to Mrs. Tatiana Dominick.
5. Whereas Robert Borth and Les Ferge have added a pleasant dimension to this annual meeting by arranging and leading collecting trips in this area for visiting members,
Be it resolved that we thank them for their time and efforts spent on this aspect of the Annual Meeting.

IMPORTANT NOTICE

Beginning January 1, 1977, back issues of the *Journal (Lepidopterists' News)* up to Vol. 13, 1959) will be sold for \$13 per volume uniformly. Orders postmarked by Dec. 31 will be honored at the old price: Volumes 1 - 24 (1947 - 1970), \$8 per volume; Volumes 25 - 28 (1971 - 1974), \$10; Volumes 29 - present, \$13. Individual numbers may be purchased, too. We also have some extra issues of the NEWS of recent years (mostly 1970 onward, but not all numbers) at \$.25 each. Please inquire about these before remitting. Send orders to Charles V. Covell Jr., Asst. Treasurer, Dept. of Biology, Univ. of Louisville, Louisville, KY. 40208, U.S.A., and make checks payable to The Lepidopterists' Society. All orders are postpaid.



1976 SNAPSHOTS BY C. V. COVELL, JR.

(Top Left) Exec. Council at Madison, L to R, Arnold, Brewer, Hodges, Nicolay, Sargent, Godfrey, Ziegler, L. Miller, J. Miller, Davis. (Btm. Left) Soc. of Ky. Lepid., July 24, Paducah, Ky. (Right) L to R, Ron Hodges, out-going Pres.; Stan Nicolay, Pres.; Bill Tilden, Pres.-Elect.



ANNUAL MEETING AT MADISON, WISCONSIN (Those Identified)

- | | | |
|----------------------------|---------------------------|---|
| 1. Carlos R. Beutelspacher | 17. Mignon Davis | 37. Mrs. William E. Sieker |
| 3. A. E. Brower | 18. Mrs. John H. Fales | 38. William D. Winter Jr. |
| 4. Richard A. Arnold | 19. Eric H. Metzler | 40. William D. Field |
| 5. Debbie Arnold | 20. Everett Cashatt | 41. Theodore D. Sargent |
| 6. Elaine R. Hodges | 21. Hazel Tilden | 42. Thomas D. Eichlin |
| 7. Ronald W. Hodges | 22. Joan DeWind | 43. Jeanine Oppewall (face not showing) |
| 8. John H. Fales | 23. Charles V. Covell Jr. | 44. Bryant Mather |
| 9. Stanley S. Nicolay | 24. John R. Beattie | 45. Donald W. Duckworth |
| 10. Jo Brewer | 27. Alan Brownell | 46. Robert M. Pyle |
| 11. J. F. Gates Clarke | 29. Katherine Mather | 48. Francie Chew |
| 12. J. Ben Ziegler | 31. Don R. Davis | 50. Frederick W. Stehr |
| 13. Jim Mertons | 32. William J. Gojmerac | 52. Kenneth W. MacArthur |
| 14. William E. Sieker | 34. William Tilden | 53. Roy D. Shenefelt |
| 15. David H. DeSwarte | 35. Les Ferge | |

MINUTES OF THE 23RD PACIFIC SLOPE MEETING

The twenty-third Annual Meeting of the Pacific Slope Section of the Lepidopterists' Society was held on July 2 & 3, 1976 in the Conference Room of the Nevada State Museum in Carson City. Informal activities also took place on July 1 & 4.

Thursday evening an open house was hosted by Peter Herlan. A large number of Lepidopterists, spouses, friends, etc., enjoyed the hors d'oeuvres and cocktails, but mainly the chance to get together and discuss their favorite subjects. Some even collected a variety of moths within the confines of Peter's elaborate garden of cacti, vegetables and plants.

On Friday, July 2, Jack Porter (Director of the Nevada State Museum) welcomed the Lepidopterists to the museum, its facilities, and to Nevada in general.

With Dr. J. A. Powell presiding, the morning session included: "Ecological organization of a tropical butterfly community" — P. A. Opler (Office of Endangered Species). Studies in Guanacaste and Costa Rica as a whole were compared to California for number of species, plant associations, etc. Notable attributes of tropical butterflies includes more diversity, average smaller size, many adults all season, adult reproductive diapause, more detritivores, pollen feeding by adults and behavior more complex for many of the species; "Collecting methods for clearwing moths (Sesiidae), with emphasis on pheromone attraction" — T. D. Eichlin. In addition to the collecting methods, slides were shown of various sesiids, many from the tropics; "World distribution of libytheid butterflies" — Oakley Shields. Distribution of the 15 species of snout-butterflies was discussed zoogeographically and evolutionarily in terms of "continental drift" or plate tectonics. The Nevada Museum hosted the Friday luncheon at Thurman's Ranch House east of the city.

With Dr. J. P. Donahue presiding, the afternoon session commenced with: "Photoperiod and temperature in phenotype determination of Pacific slope Pierini" — Arthur M. Shapiro. Read in his absence by John Lane, the studies were mainly on the *Pieris napi* complex — seasonality of *venosa* and *castoria* plus reinstatement of the taxon *microstriata*; "Analysis of hybridizing populations of buckeye butterflies — John Hafernik. Slides were shown of several tropical species and of *coenia*, *nigrosuffusa* & *evarete* occurring in the U.S.; "Experimental studies of some coastal California *Callophrys*" — John Lane. Subspecies and variants were illustrated with correlation to their distribution and food-plants; "Prolonged diapause in yucca moths" — J. A. Powell. In the Prodoxidae several species often diapause more than one season, and sometimes many years in dead, dry yucca stalks. "A new species of *Neocossus* from southern Arizona (Cossidae: Zeugsterinae)" — Julian P. Donahue. Appearing like a sphinx-moth to the uninitiated, this large black and white species is distinct by its dark abdomen and antennae feathered only on the basal half.

The traditional banquet was held Friday evening at the recently built Ormsby House. After the feast, door prizes of books, some of the large expensive genre, were presented (generously donated by Entomological Reprint Specialists). The featured speaker was Dr. Paul A. Opler on "Butterfly diversity in Costa Rica". His talk was illustrated with slides, not only of diverse Rhopalocera, but other insects, amphibians, reptiles, the lush tropical growth and scenery.

Saturday, July 3: With P. A. Opler presiding, the morning

session consisted of: "Life history and ecology of two endemic California Lycaenidae" — Bruce Walsh. *I. mossii dou-doroffi* and *S. enoptes smithi* were illustrated, early stages, food plants, etc. along with inland range extensions since recent publications; "Observations on migrating *Nymphalis californica*" — John Sorensen. Previous migratory movements were documented, along with new studies which emphasized extremely unbalanced sex ratios dependent upon location and habitats; "Physiological changes in adult overwintering Monarch butterflies" — Paul Tuskes. Illustrated with large masses of adults on trees, the "shingling effect" and positions in relation to possible bird predation; "Having fun with adelid moths" — Ronald Leuschner. The eight Pacific States species (out of 12 in North America) were illustrated, with information on how to catch and identify these minute dark day-fliers with very long antennae.

The meeting was then opened for presentation of notes and exhibits. R. L. Langston exhibited a box of Leps. arranged by months from Jan. thru June. There were many common species, but also some of the "desirable" ones were taken abundantly during the "Great drought of 1976" in California; J. A. Powell gave information on an index to the Zoological Record — the First volume of the projected Insecta Directory — [Rhopalocera Directory, by J. R. Beattie — since reviewed in NEWS of Lep. Soc., No. 3, Aug. 1976]; J. P. Donahue presented slides showing fringed, hairy tarsi not only on microleps (Pterophoridae, Sesiidae), but also on mosquitos and other insects indicating possible mimicry; John Lane showed slides of seasonal phenotypes and hybrids of *Mitoura*, plus views of the now famous El Segundo Dunes west of the L. A. International Airport; Bruce Walsh had slides of the larvae of *Z. eurydice* and *L. lorquini*.

With Dr. Ray Stanford presiding, the Business Meeting was called to order on Saturday afternoon. The minutes of the 1975 meeting were approved.

The selection of a meeting site for 1977 was opened for discussion. The National Meeting is scheduled for Thurs. to Sun., July 21 to 24, 1977 in Boulder, Colorado. It was moved, voted and approved that the 24th Pacific Slope Meeting be combined with the National. The program and local arrangements will be shared by Ray Stanford, Don Eff and whoever else they may appoint.

Resolutions were presented by Julian Donahue: Whereas the 23rd. annual meeting of the Lepidopterists' Society, hosted by the Nevada State Museum, July 2-4, 1976 in Carson City has been well organized, well attended and thoroughly enjoyable,

Therefore be it resolved that the Section's deepest thanks be extended to the local arrangement committee: Gloria Harjes and Peter Herlan; The program committee: J. A. Powell (chairman), A. M. Shapiro and Paul Tuskes; and Special expressions of gratitude to Peter Herlan who hosted the Thursday evening open house, and to the Nevada State Museum for the use of its facilities and for hosting the Friday luncheon.

It was moved, seconded and unanimously approved that the resolutions be accepted as read. Additional thanks were extended to Ron Leuschner for his excellent performance as the Editor of the NEWS — a time-consuming, little thanks position that will be taken over by Jo Brewer in 1977.

The Business Meeting was adjourned, and the following papers presented: "Cypress family associated *Callophrys*

(*Mitoura*) of the Nevada-California border region" — John Lane. Illustrated with maps and the various hosts of the brown and green forms of *siva*, *loki*, etc.; "Some observations on western Saturniidae" — Paul Tuskes.

After a coffee break, Ray Stanford told about the proposed "Rocky Mountain Butterfly Book." With Brown, Eff, Ellis, Fisher, Scott and Stanford as authors, it will cover Colorado, Idaho, Montana, Utah, Wyoming and the parts of Arizona and New Mexico north of U.S. Hwy. 40. This comprehensive work will treat the Rocky Mountain species considered to be endangered.

J. A. Powell talked about "The fourth of July butterfly count", giving a resume of the 1975 counts for the Berkeley and Lodi areas in California, with proposals for 1976 and future counts. It was also suggested a count be initiated in Nevada this year in conjunction with this meeting.

Paul Opler gave the legal aspects and problems of establishing threatened and endangered species from both the official and collectors standpoint. Special reference was made to the six endangered species in California.

On Sunday, seven eager, experienced collectors headed out in the morning. The major collecting was done in the Virginia City-Ophir Grade-McClellan Reservoir areas. The 29 species taken included typical Great Basin inhabitants such as *H. comma harpalus*; *P. beckerii*; large numbers of *S. behrii*; *S. sylvinus putnami* & *S. californica* sympatric; *L. arota virginensis* topotypes; *L. rubidus*; *P. icarioides ardea*; a single female *P. zephyrus*; *S. callippe nevadensis*, and the common *C. silvestris paulus*.

No group picture was taken during the meeting, hence the members and guests are listed as follows: Jim & Ilah Baker, David L. Bauer, Julian & Kathy Donahue, Homer Edgcombe, Thomas D. Eichlin, Kenneth Goeden, Bruce Griffin, John Hafernik, Chuck Hageman, Gloria J. Harjes, Peter & Barbara Herlan, John Lane, Bob & Evy Langston, Ron & Jeanne Leuschner, Lloyd & Dorothy Martin, Sterling Mattoon, David McCorkle, Paul Opler, Wm. D. Patterson, Jack Porter, Jerry Powell, Fred Ryser, Charles A. Sekerman, Oakley Shields, Steven R. Sims, Mark Sitter, John Sorensen, Ray & Kit Stanford, Wm. L. Swisher, Fred & Dorothy Thorne, Paul Tuskes, Bruce Walsh, Ralph Wells and Nils & Florence Westerland.

Robert L. Langston
Secretary Pro-tem

SECOND ANNUAL INTERNATIONAL INSECT FAIR OF PARIS

April 23 and 24, 1977

Palais Des Congres, Porte Maillot, Paris, France

This is your opportunity to:

- Meet amateur and professional entomologists from a great number of different countries
- Sell, exchange, purchase all insects.

FOR MORE INFORMATION, PLEASE CONTACT:
A.P.E., 27 Villa Chaptal, 92300 Levallois-Perret,
FRANCE

THE FLOOD AND THE BUTTERFLY

Our Adelphi University research team arrived early in May 1976 to our base in Fort Collins. Nestled in the foothills of Larimer County, Colorado, we extensively monitored the county through eight stations: two in Buckhorn Canyon, and three each in Rist and Poudre Canyons.

July 31, 1976 marked our untimely termination of the lepidopteran survey, at least of Larimer County. Flood waters ravaged through these canyons, devastating butterfly and moth populations, possibly for years to come. What an unfortunate example of disruptive selection!

We felt the damage through the floorboard as our Blazer clawed at the gravel and mud which was once a paved county road through Rist Canyon. A speechless stupor came upon us as we arrived at our most profitable collecting site in the lower part of the canyon. An automobile covered to the windshield level by rubble and bits of road sat mute in the totally defoliated area.

I stared in awe at that windshield which seemed to reflect the snowy blanket created by hundreds of Parnassians only weeks before. As we continued our survey of the damage, my memory treasured those days flooded with sunshine as swallowtails, blues and fritillaries filled the air. Untold acres of choke cherry, wild plum, lupine, rose, sedum and willow were replaced by gravel, mud and mangled metal objects.

Only days before, uncomprehending residents rubber-necked past our many blacklights throughout the canyons which had yielded over 150 species of moths. Our only two lo moths (*Automeris io*) were obtained at the lower station in addition to three of our four Glover's silkmoth (*Hyalophora gloveri*).

Most of our 25 species of Arctiid tiger moths were found in Larimer County. So were many of our other moths. We have lost Larimer County as a prime collecting area. The prognosis is poor.

The canyons of Larimer County were ripped and gorged by the flood waters. Life on every level was affected. As human beings, we were grieved by the loss of life throughout canyons; as lepidopterists, we mourned the loss of the butterfly and moth populations.

Scott Treatman
Adelphi University
1469 E. 103 St.
Brooklyn, N.Y. 11236

(Editor's Note: I can only echo the sentiments of this article, as Big Thompson Canyon was one of the best moth collecting localities in Colorado, a place where many enjoyable and scenic days were spent over the last 25 years. It is hard to believe that it could be the site of such destruction and tragedy.)

RESEARCH REQUEST:

Want specimens of *Glaucopsyche* for monograph in preparation. Particularly need Eurasian material in series, and ecological information. Will purchase, exchange or borrow. All contributions and correspondence acknowledged. R. H. T. Mattoni, 9620 Heather Road, Beverly Hills, CA. 90210, U.S.A.

THE SPREADING BOARD

By C. V. Covell, Jr.

KILLING AGENTS. Response to the bit about problems of suitable and available killing agents for Lepidoptera was the best yet for this column. Here are some solutions to the problems:

John Holoyda of Chicago uses 70% isopropyl alcohol applied to the proboscis of the butterfly by means of a medicine dropper. He finds that it does not work "all the time, but a lot of times it does." He used to be able to get hypodermic syringes, and found that injecting the alcohol from the underside of the thorax did the job instantly, even in the case of large sphingids. Mrs. Pat Purdy of Roanoke, Virginia, gave explicit details of her method of killing Lepidoptera with the help of Apex Lacquer Thinner, which she puts on cotton-lined bottom 1½ inches of killing jars made from peanut butter jars. She recommends pinching the butterfly first, papering it, and then putting the papered specimen in the killing jar containing the lacquer thinner. Care must be taken not to leave the papered specimens in the bottle too long, ere they get moist from condensed liquid; they should not be wetted by the thinner. Also, the thinner must not come in contact with plastics. Larger specimens do not succumb too readily to this substance, but smaller moths, even unpinched, seem to be killed by it fairly readily. Richard Guppy of Thetis Island, British Columbia, also recommends lacquer thinner, which he says is "nothing else but ethyl acetate under another name." I am not sure if this is the same kind of lacquer thinner Mrs. Purdy uses. I have always had good results with the ethyl acetate purchased as a reagent from supply houses.

A most interesting killing jar was also mentioned by Guppy as being used by his nephew, Chris S. Guppy and was also recommended by Joann Karges of Fort Worth, Texas. Joann has actually used this technique, and finds it "works quickly and effectively for medium-sized species," not having tried it for the largest Lepidoptera. This is a jar in which the leaves of laurels (several evergreen species of the genus *Prunus*, and I suppose *Kalmia*, are minced and placed below a piece of cloth wedged over the leaves, as described in the book *Butterfly Culture: A Guide to Breeding Butterflies, Moths and Other Insects*, by J. L. S. Stone and H. J. Midwinter (Blandford Press, 1975), pg. 90. The European (English) species described in the book is *Prunus laurocerasus*. The leaves give off prussic acid, which kills the insects. Joann has successfully used the ornamental Cherry Laurel, *Prunus caroliniana*, for this purpose, but the tree is pretty much restricted to the southern U.S. She finds the tree abundant in her area, and I recall it quite common in Southern Pines, N. C. (a great source of *Libytheana bachmanii* when in bloom!).

Of store-bought chemicals possibly still available, the following were suggested by Jim Parkinson of Florence, Texas, and Michael Plagens, Tucson, Arizona. Both mention *trichloroethylene*, bought in industrial forms such as polish remover. Michael finds it a bit slower and more inclined to stiffen specimens than *trichloroethane*, which he has also been able to procure. Jim, however, is now leaning toward *ethyl acetate*, which, along with *carbon tetrachloride*, is available from Bio Quip Products, and probably from other suppliers who will ship to private collectors. Bio Quip's address is: P.O. Box 61,

Santa Monica, CA. 90406; ask for a catalog. I would suggest, however, that you try local drugstores first for ethyl acetate; it may be available. The use of gasoline is not recommended.

Michael Plagens also sent in some notes on **SPREADING BOARDS**, which is a subject I would like to cover soon. Michael uses a thick, smooth sheet of styrofoam, and makes his grooves by melting them into the styrofoam using an appropriately wide metal rod heated on the stove. Grooves of different widths can thus be made, and even on the same piece of foam board if desired. I used to make boards out of balsa wood bought at the local hobby shop. This material is so expensive now as to be prohibitive for the whole board, although strips can be used for the pin-holding center strip below the notch. I have tried plastic boards, and still prefer good wooden boards with *angled side pieces* to compensate for later sag in wings. Basswood or good white or sugar pines for board construction seem satisfactory; the wood must hold a pin well, and be easy to push the pins into. I use glass-headed (or plastic-headed) florists' pins, which are easy to handle, to hold the paper strips (I use tracing paper cut by a print shop into inch-wide lengthwise strips) over the wings of the specimens. Tracing paper is translucent, yet fairly tough, and readily available; I've used wax paper in a pinch, and even tablet paper when nothing else is available. The pins can be ordered from Scovill Corp., Oakville Division, Oakville, Connecticut; ask for boxes of 1000 1¼" Steel Florist Pins, No. 125, Jet black. Or you might find them at a local florists, or similar pins (usually multicolored) at the dime store or similar outlet.

I will welcome letters giving your best tips on *spreading board construction and use*, to put in a later edition of "Spreading Board."

OCURRENCE OF ANAEA ANDRIA (NYMPHALIDAE) IN VIRGINIA

A review of the recent literature (Covell and Straley 1973, J. Lepid. Soc. 27, 144-154; Covell 1967, Va. J. Sci. 18, 21-24; Clark and Clark 1951, Butterflies of Virginia, Smithsonian Misc. Coll. 116) discloses that records of *Anaea andria* (Scudder) in Virginia appear to be lacking. I somewhat belatedly report here that in August 1962 I collected one male and two females of *A. andria* in a barnyard in Flatwoods Community, fifteen miles west of Jonesville, Lee County, Virginia. One pair is in the author's collection; the second female is with Dr. David Baker, Jonesville, Va.

Although the site of these captures has not been visited by the author since the early 1960's, recent collecting elsewhere in Lee County, and in adjoining Scott and Sullivan Counties has not afforded more *A. andria*.

Acknowledgment: The author is grateful to Prof. C. V. Covell for literature and comments.

John A. Hyatt, 439 Forest Hills Drive
Kingsport, Tennessee 37663

LEPIDOPTERA CONSERVATION AND THE ENDANGERED SPECIES ACT OF 1973

J. B. Zeigler

No doubt the average lepidopterist supports the idea of "conserving" wildlife in general and lepidoptera in particular, as a broad and general principle. Who among us has not lamented the transformation of a favorite collecting spot into a parking lot or shopping center? However, pin said lepidopterist down and he would probably admit that such complaints relate to the destruction or dislocation of an entire colony of a species with consequent impairment of his opportunities to collect. Surely, then, the name of the "conservation of lepidoptera" game for this average lepidopterist is the *preservation of the opportunity to collect*.

The Endangered Species Act of 1973, hereafter referred to as "the Act", was drawn up very broadly to encompass the plant and animal kingdoms in their entirety. The stated purpose of the Act is to identify "species" (defined as including taxa below the true species level) which are deemed to be in danger of extinction and to "conserve" them by various measures including *inter alia* habitat protection and regulation of "taking" or capturing activities. Contemplation of the regulatory possibilities (unhappily already foreshadowed by recent actions) inherent in legislation of such broad scope rather boggles the mind. However, space does not permit a full discussion of this broad question here. Rather, it is proposed to limit consideration to the potential impact of the Act on the collecting activities of both professional and amateur lepidopterists.

Several officials of the Department of the Interior, as major custodian of the Act, have given private assurances to members of the Lepidopterists' Society that the main thrust of the Department's efforts with regard to the lepidoptera would be in the area of habitat protection and not in the regulation of collecting activities. They have further stated that "problem" butterflies would most likely be classified as "threatened" rather than "endangered", thereby not requiring regulation of collecting ("taking") activities. In any event, the sections of the Act dealing with penalties for "taking", possessing, buying or selling of "endangered or threatened species" are lengthy, specific and detailed whereas the sections dealing with other conservation approaches are rather more vague and general. Further, the fact also remains that to date two butterfly taxa have been classified as "threatened" and six taxa as "endangered". One of these same Interior spokesmen said, quote, "It is true that any species of butterfly (or other insect) found to be an endangered species would be given a great deal of protection, and prohibitions would be placed on the 'taking' of individuals." Such conflicting statements can hardly serve to justify the confidence of lepidopterists in the true intentions of the authorities. Current interpretations of the Act with certain "endangered" species of vertebrates (the "Tennessee snail darter", a newly-described species of fish slightly larger than a guppy; the American alligator, *Alligator mississippiensis*) and the demonstrated consequences do not inspire confidence in the ability of the regulators to act responsibly and with practical common sense in the general public interest. In addition, those of us with extensive experience with the ramified impact of Federal regulatory agencies such as FDA, OSHA, DEA, etc. on the chemical industry can only view with considerable uneasiness the spread of this kind of governmental influence into the field of lepidopterology.

The six "species" recently declared endangered can illustrate official circuitous logic. Several lepidopterists objected to "endangered" status since this would make restrictions on collecting mandatory. They pointed out that many individuals of most of the candidate "species" could be collected in a single day with no apparent ill effect on the population's long-term survival. The authorities apparently conceded this point, stating "—factors other than collecting (habitat jeopardy) are responsible for the present Endangered state", and—the lord giveth!—"taking of these (endangered) butterflies for scientific purposes—could be allowed by permit". BUT—the lord taketh away!—since "significant reduction of their population numbers might bring about a serious loss of genetic variability and a concomitant loss of evolutionary adaptability", therefore "It should be noted that such permits are granted for scientific purposes—and are not issued for the accumulation of specimens of taxa already adequately represented in scientific collections" (author's emphasis). Does this mean that collections for museums are sanctioned as being "scientific" but that collecting by and for amateurs is not necessary for the advancement of "science"?

In order to gain some insight into the potential ultimate impact of the Endangered Species Act of 1973 on the collecting activities of lepidopterists, the following scenario has been prepared. Although purely hypothetical and perhaps even a little whimsical in nature, it is fully in accord with the scope of the Act as written. All names of individuals and of organizations are fictitious and no relationship to any such existing entities is intended or should be inferred.

- 1) A new subspecies *X-us Y-us Z-us* is described, with a restricted type locality in a part of the United States where inter-locality and even intra-locality variation on occasion are well-known phenomena.
- 2) Many students consider that *X-us Y-us Z-us* is not well differentiated from the nominate subspecies, *X-us Y-us Y-us*.
- 3) *X-us Y-us Z-us* is proposed for classification as an endangered species by members of the Psyche Society.
- 4) The Secretary of the Interior publishes a request for comments, opinions, factual data, etc. relevant to this proposal in the Federal Register.
- 5) Proponents of the classification submit voluminous material in support thereof. Objections are filed by a few persons who happen to hear of the proposal in some roundabout fashion. Most lepidopterists are unaware of the proposal and therefore cannot comment.
- 6) After various formalities, the Secretary finally determines that the taxon in question should be listed as "endangered" based on the "best available scientific information".
- 7) A collector, Sam Papilio, captures a large series of *X-us Y-us Y-us* from a locality adjacent to the type locality of *X-us Y-us Z-us*.
- 8) An informer notifies the authorities of a violation of the law by Papilio, hoping to earn the reward of up to \$2,500 authorized by the Act.
- 9) Since the Federal enforcement officer on the case cannot distinguish between *X-us Y-us Z-us* (listed as endangered) and *X-us Y-us Y-us* (not so listed), the latter is treated as though it were so listed according to a provision of

the Act. Papilio is in jeopardy of a civil penalty of a \$10,000 fine, or trial and conviction of a criminal offense carrying a penalty of a \$20,000 fine and imprisonment for a term of one year.

- 10) On the evidence, the Secretary is not convinced that Papilio has actually committed a serious violation in view of all of the circumstances, and delays action for further consideration.
- 11) However, members of the Cordillera Club intervene, alleging that a violation has indeed been committed which creates an emergency with regard to survival of the taxon in question, and said persons commence a civil suit in the Federal district court to compel the Secretary to enforce the Act.
- 12) The Federal district court judge issues an order compelling the Secretary to move to penalize Papilio.

So ends the scenario. More could be written but this should suffice to make the point. By this time the reader may well have thrown up his hands in horror and outrage, exclaiming: "But this is insane! Things couldn't possibly go to this ridiculous extreme with mere butterflies and moths!" No, probably not. Or—could they? Experienced observers of the Federal regulatory scene are not quite so sure.

To summarize, the recent application of the Endangered Species Act of 1973 to butterflies is a matter of major concern to lepidopterists. It deserves the most careful and critical consideration of the present and future impact of this activity upon the interests of lepidopterists and the science of lepidopterology. During the past year, the Department of the Interior has taken the following official actions as reported in the Federal Register:

- 1) issued notice of a review of 42 taxa of butterflies to determine whether they should be proposed for listing as either "endangered or threatened species".

- 2) issued notice that 6 of the taxa considered in 1) above are "endangered species".

- 3) issued notice that 2 other taxa of butterflies have been determined to be "threatened species".

It appears that none of these questions have been adequately publicized to the majority of the members of the Lepidopterists' Society who, on that account, have not had the opportunity to exercise their rightful influence on the final decisions taken. It seems clear that this situation must be rectified in the near future.

After lengthy discussions at the last Annual Meeting, the Executive Council of the Lep Society has undertaken finding effective means to ensure that the Society membership is informed in advance of future proposed regulatory actions by the Federal authorities under the Act.

In the meantime, Society members are urged in the strongest terms to give the most earnest thought to this question in order to determine where their long-range interests really lie, and to inform the Federal regulatory authorities of their viewpoints. It is the personal opinion of this writer that the application of the Endangered Species Act of 1973 to insects in general and to the Lepidoptera in particular is misguided, is not in the public interest and is not in the interest of lepidopterists, *especially insofar as said application interferes in any manner with the right of lepidopterists to collect.*

The officials of the Department of the Interior to contact are:

1. The Hon. Lynn A. Greenwalt, Director
2. Dr. Paul A. Opler, Staff Specialist
Office of Endangered Species
Address: Fish and Wildlife Service
U. S. Department of the Interior
1612 K Street, N. W.
Washington, D. C. 20240

A NOVEL COMMERCIAL "PHEROMONE" FOR ATTRACTING CLEARWING MOTHS

On 13 October 1976, I made another daily collecting trip to a colony of clear-wing moths, *Hymenoclea palmi* (Beut.), only four miles northeast of my home. The larval foodplant, Burrobrush (*Hymenoclea monogyra*), grows in extensive thickets in and along Cave Creek Wash for about a mile south of Thunderbird Road.

The moths had begun their annual flight in late September and had reached their peak. On several occasions, I had used a pheromone developed for sesiid traps but with poor results. On this trip, I elected to forego the collecting net and pheromone (I had already secured a large series of males) and decided to concentrate on collecting freshly emerged females.

Prior to making this visit, I had performed the usual male grooming procedures, e.g., shower, shave, etc. On this morning, however, I splashed on my other after-shave, Old Spice "Musk" for Men, Cologne Lotion, Shulton Inc., Clifton, N. J. 07015, instead of the usual Brut 33.

Old Spice "Musk" is a man's grooming aid with a heavy, pervading scent. It is purported by the manufacturer to be highly attractive and pleasing to members of the female sex. I can't vouch for this claim but the product proved irresistible to males of *H. palmi*.

As soon as I arrived at the colony (1030 hours), I perceived males in flight in their search for females. A light breeze of 2 to 5 miles per hour was blowing from the northeast. Within

minutes, I became aware of several males circling around me. As I walked among the Burrobrush, I noticed more and more males coming to me from downwind. Soon I was encircled by scores of males. Whenever I stopped, the males buzzed in closer and soon began to settle on my face and hands. The moths showed no interest in my clothing, only those parts of my epidermis that had been in direct contact with the after-shave. Even in these outdoor conditions I, myself, could detect the strong odor of the after-shave. Rubbing my hands over my face only served to make these more attractive to the moths. During my one hour stay, I was constantly plagued by scores of males. I had never before been beset by these moths with other after-shave lotions.

For those collectors who find their after-shave not achieving the results they seek with the human variety, may I recommend trying it in the field as a possible attractant for sesiids, albeit the male sex. From now on, I intend to keep a good supply of "Musk" in my field bag . . . for those unexpected occasions.

P.S.: Further confirmation came on 22 October, when 96 *Zenodoxus rubens* Engelhart were attracted and caught. By this time, I was putting the "Musk" on my net hem, not my face, as a more convenient procedure.

Ronald S. Wielgus
3434 W. Augusta Ave.
Phoenix, ARIZ. 85021

FIELD SEASON SUMMARY FOR 1976

Time to be getting your field notes for the 1976 season in order to submit to the Zone Coordinator in the areas in which you collected last year. Try to make your report brief, accurate, and neatly presented (double-spaced and typed if possible). *Deadline* for you getting your reports to Zone Coordinators is February 1, 1977.

For an effective summary, we need new state or county records, range extensions, choice species, food plant records, migration observations, NOT lists of common species. Consult previous summaries to find what was already reported. Mention the commoner species only with reference to specific information such as population size, habits, unusual forms, etc. — not just as records of your having taken them again. Be sure to include information on your finer catches, new collecting areas, new time records, etc. Use the *dos Passos Check List* for North American butterfly names, and check your spelling so the Coordinator will not have that to worry about. Also, omit names of authors of species except where absolutely necessary.

Following are listed the 11 zones with their Coordinators and their addresses, and the areas encompassed by each:

ZONE 1: (Calif., Ariz., Nev.) — Robert L. Langston, 31 Windsor Ave., Kensington, CALIF. 94708, U.S.A.

ZONE 2: (B.C., Wash., Ore., Ida., Mont.) — Dr. Jon H. Shepard, R.R. #2, Nelson, B.C., CANADA.

ZONE 3: (Alta., Wyo., Utah, Colo., N.M.) — Donald Eff, 445 Theresa Drive, Fairview Estates, Boulder, COLO. 80303, U.S.A.

ZONE 4: (Sask., Man., N. and S. Dakota, Nebr., Kans., Okla., Texas) — H. A. Freeman, 1605 Lewis Drive, Garland, TEXAS 75041, U.S.A.

ZONE 5: (Minn., Wisc., Mich., Iowa, Ill., Ind., Ky., Ohio, Mo., West Va.) — M. C. Nielsen, 3415 Overlea Drive, Lansing, MICH. 48917, U.S.A.

ZONE 6: (Ark., La., Tenn., Ala., Fla., Ga., N. and S. Carolina, Va.) — Bryant Mather, 213 Mt Salus Drive, Clinton, MISS. 39056, U.S.A.

ZONE 7: (Que., Nova Scotia, New England, N.Y., N.J., Pa., Del., Md., D.C.) — William D. Winter, Jr. (M.D.), 257 Common St., Dedham, MASS. 02026, U.S.A.

ZONE 8: (Alaska and Northern Canada) — Kenelm W. Philip, 1005 Gilmore St., Fairbanks, ALASKA 99701, U.S.A.

ZONE 9: (Northern Neotropics: West Indies, Mexico, and Central America) — Eduardo C. Welling M., Aptdo. Postal 701, Merida, Yucatan, MEXICO.

ZONE 10: (South America) — Thomas C. Emmel, Dept. of Zoology, University of Florida, Gainesville, FLA. 32611, U.S.A.

ZONE 11: (Ontario) — Quimby F. Hess, 11 Esgore Drive, Toronto, Ontario M5M 3P9, CANADA.

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. Notices will be limited to 2 appearances. The Editor reserves the right to alter or reject unsuitable copy.

WANTED: Overwintering eggs and pupae for Lepidoptera farming and release in nature displays at educational shows. Almost any species, esp. Papilionidae, Saturniidae, other large species. Please state quantities and prices; prompt reply to all offers. Robert Goodden, Worldwide Butterflies Ltd., Sherborne, Dorset, ENGLAND

FOR SALE: S. American butterflies, many species, reasonable prices. Write for price list. Also N. American insects. Also one pair of *Ornith. victoria*, perfect condition. Will take best offer. Brett Barrett, P.O. Box 107, Alvaton, KENT. 42122, USA

WANTED: All Rhopalocera (esp. Lycaenidae and Hesperidae) from Africa, Australia, and Asia. Also Heterocera. Willing to buy or exchange Pennsylvania Lepidoptera. Gasper Danish Jr., 1017 Second Ave., Altoona, PA. 16602, USA

FOR SALE: Hundreds of species of butterflies, beetles, other insects from Malaysia, Thailand, and Indonesia, reasonable prices and good quality. The Global Colosseum, 67, Spottiswoode Park Rd., S'pore 2, SINGAPORE

FOR SALE: 1500 exotic butterflies, insects, biologicals. 64 page catalog for \$1.00. Complete Scientific, P.O. Box 307, Round Lake, ILL. 60073, USA

FOR SALE OR TRADE: One pair *Ornith. priamus pronomus*, one pair *O. priamus macalpinei*, *Goliathus cacticus* and *G. regius*, occasionally *G. atlas* and *G. albosignatus*. Interested in Lucanidae and African Cetoniinae in trade. Please write for prices and desiderata. Chris Adamson, 2437 Warring #G, Berkeley, CALIF. 94704, USA

WANTED: Rare Papilionidae, esp. *Ornith. rothschildi*, *lydius*, *chroesus*, *tithonus*, *goliath*, *paradisea*, etc., *Papilio homerus*, *colomus*, etc. Also rare Saturniids, esp. *Sat. caesar*, *hercules*, etc., both males and females. Please make reasonable offers, will buy in quantity. Dr. Tibor Balazs, Gruentenstr. 8, 8901 Merching, Bayern, WEST GERMANY

FOR SALE: World livestock, specimens, equipment and books with emphasis on education and conservation. We do not deal in rare or endangered species. Please send for a prospectus. The Butterfly Farm, Ashford, Kent, ENGLAND TN25 7JW

WANTED: Mid-Continent Lepidoptera Series No. 34-49, microfiche of Edwards' Butterflies of N. Amer., V. 1-3. Must be negatives, not positives. Want numbers or volumes of Proc. New England Zool. Club (1899-1903); Boston So. Nat. Hist. Journal (1837-63); *ibid* Proceedings Vol. 1. C. F. dos Passos, Washington Corners, Mendham, N.J. 07945, U.S.A.

FOR SALE: Butterflies of all groups for collectors or art work, first and second quality. Also many other insects (beetles, spiders, etc.) from Peru. Mario Rojas V., Aptdo. 119, Tingo Maria, PERU. Hildebrando Rojas V., Aptdo. 46, Satipo, PERU

- EXCHANGE: Butterflies of Spain for worldwide Papilionidae, Nymphalidae, Sphingidae, Saturniidae. Material offered and received must be A-1 quality, with full data. J. L. Sanchez de Vivar; Guzman el Bueno, 37; Madrid-15, SPAIN
- FOR SALE OR EXCHANGE: Cocoons of *Saturnia albobasiata* from San Bernardino Mts. should be available this coming summer. If interested, contact Richard Priestaf, P. O. Box 14203, U.C.S.B., Santa Barbara, CA. 93107, U.S.A.
- FOR SALE: 130 worldwide species (Sphingids, Saturnids- living/dead) Send 60 cents or Int. reply coupons for 1977 list. BUY/EXCHANGE: Living material (Min. 24 ova, 12 pupae per species). Write with species, qty., price/exchange required. Please enclose Int. Reply Coupon. Ray Adams, Carretera Principal 139, Tamaraceite, LAS PALMAS DE GRAN CANARIA (SPAIN)
- FOR SALE OR EXCHANGE: *Callosat. walterorum* pupae \$3 each, \$32 dozen; *Hyalo. euryalus* pupae \$1 each, \$10 dozen. Add \$1 for postage and packing. Will trade for live pupae of *Cerat.* or *Saturn.* that I need. Richard Hatch, 2449 Bartel St., San Diego, CA. 92123, U.S.A.
- FOR SALE: 12 drawer Cornell cabinet with drawers, details on request. R. A. Rahn, 3214 W. Springdale Ave., Wausau, WI. 54401, U.S.A.
- WANTED: Rare *Agrias*, will pay highest prices, or exchange for other rare *Agrias*. All correspondence answered. Robert E. Aronheim, P. O. Box 239, Middlebury, CT. 06762, U.S.A.
- FOR SALE: 50,000 Malaysia butterflies, moths, beetles, other insects. Papered, first quality, write for free catalog. Scientific Entomological Emporium, P. O. Box 56, 103 Taman Aun Say, Taiping, Perak, MALAYSIA
- FOR SALE: 350 *Papilio troilus* pupae, each 60¢, minimum order 20. William Houtz, R. D. #1, Box 581, Pine Grove, PA. 17963, U.S.A.
- WANTED: Live material of Lepidoptera, esp. Silkmoths and Hawkmoths, also other insects and Arthropods, for breeding and resale. Papered specimens also required. Nature of the World, Fetcham Cottage, Bell Lane, Fetcham, Leatherhead, Surrey, ENGLAND
- FOR SALE: Ecuador Lepidoptera in lots: 100 Hesperidae, assorted, \$95; 100 Sphingidae, assorted, \$65; 100 Saturniidae, \$85. Rosario de Lafebre, Amazonas 430, P. O. Box 1265, Quito, ECUADOR
- EXCHANGE: Pupae of *E. imperialis*, *Psychomorpha epimenis*, *Cer. catalpae*, and *Smer. cerisyi* (N. H.); ova of *Catocala coccinata*; pinned/papered *Hem. lucina* and eastern Sphingidae (incl. *P. carteri*, *P. ficus*, *D. versicolor*). Write for detailed list; all letters answered. B. D. Williams, Lawrence Academy, Groton, MA. 01450, U.S.A.
- WANTED TO BUY: All North American Rhopalocera, papered, A-1 condition. Write with species and prices. Pat Purdy, 2825 Sand Road NE, Roanoke, VA. 24012, U.S.A.
- FOR SALE: 100 pr. *Ornith. aeacus kaguya*, 100 pr. *Ornith. magellanus sonani*, 1 M *Papilio maraho*, 20 *Iph. chungianus*, 50 *Sas. charonda*, other common Formosan Lepidoptera. Mrs. Chang Pi-Tzu, P. O. Box 873, Taipei, TAIWAN
- FOR SALE: *Icones Ornithopterorum*, by Robert F. Rippon. Superb condition, recently bound from original wrappers, perhaps only 20 copies exist. Must sell to finance next opus. What offers? Bernard D'Abbrera, Hill House, Highview Road, Ferny Creek, Vic. 3786, AUSTRALIA
- FOR SALE: *Trog. brookiana trogon* (Sumatra) A1 male \$20; A2 male \$13; *Papilio chikae* (Philip.), a beautiful *Achillides*, A1 male \$150; A2 male \$100; A1 female \$570; *Ornith. rothschildi*, A1 pair \$670; very good A2 male \$450; good A2 pair \$450; many butterflies from Sri Lanka and New Guinea. Sei Sato, P. O. Box 49217, Tucson, ARIZ. 85717, U.S.A.
- EXCHANGE: Desire Arctiidae of the world. Offer local Lepidoptera. Correspondence desired on life history. Karel Cerny, 120 00 Praha 2, Sazavska 25, CZECHOSLOVAKIA
- FOR SALE: Large selection of Peruvian butterflies incl. *Morpho helena*, *Ancyluris formosissima*. Quantity discount. R. Peter Rosier, P. O. Box 1625, Fort Myers, FL. 33902, U.S.A.
- FOR SALE: Viable cocoons of *Actias luna*, 10 for \$7.50 postpaid. Northern walking sticks, live Planaria, trapdoor snails, pupae of Saddle Prominent Moth — write with offer. Bonnie Ravy, 1013 N. Lark, Oshkosh, WI. 54901, U.S.A.
- FOR SALE: 3000 Manitoba Lepidoptera, mostly butterflies incl. *Spey. cybele pseudocarp.*, *S. atl. hollandi*, *S. aph. manitoba*, *O. daura alberta*, *B. char grandis*, *E. portl. borealis*, *Catoc. manitoba*, *coccinata*, *osculata*. Price list on request. C. S. Quelch, 21 Park Circle, Winnipeg, Manitoba, CANADA R2C 0L6
- EXCHANGE: SE Lepidoptera for N. A. Butterflies, skippers. Write for my list, incl. *I. henrici margaretae*, *Hesp. att. seminole* & *meskei*, *Prob. bulenta*, *Elect. angelia*, *Pap. palamedes*, *M. cymela viola*, 170 species in all. FOR SALE: One pair, A plus, *Chlorostr. maesites* from Florida. Best offer, minimum \$90. Ron Gattelle, 126 Wells Rd., Goose Creek, S. CAR. 29445, U.S.A.
- ATTENTION MUSEUMS: Experienced field collector, single, college education, wishes employment for field work. All correspondence answered. Rick Gilmore, 35 S. Devon, Winter Springs, FLA. 32707, U.S.A.
- FOR SALE: Tropical American butterflies incl. *Papilio*, *Morpho*, *Agrias*, *Anaea*, *Ithomiidae*. Some *Troides* and other Indo-Malayan and Australian material. All papered A-1 with data. Send for free price list. Miguel Serrano, Calle 3 No. 1636, Avenidas 16-18, San Jose, COSTA RICA
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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:

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

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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.