



NEWS

of the LEPIDOPTERISTS' SOCIETY

No. 5 Sept/Oct 1982

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NEW EDITOR SELECTED FOR THE NEWS.....

With the Jan/Feb 1983 issue of the NEWS, a new Editor will take over: June D. Preston, of Lawrence, Kansas. Educated as an astronomer at the University of California at Berkeley, she was happily and abruptly converted to lepidopterology upon her marriage to Floyd Preston in 1945: he took a net on their honeymoon and she has been addicted ever since.

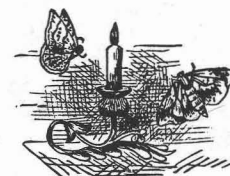
While raising four boys, the Prestons have lived in California, Michigan, Pennsylvania, and Trinidad as well as their present home state of Kansas. They have collected butterflies in thirty-five states and in nine Canadian provinces and territories. In a custom-built camper designed by June they spend their summers tracking down the species that have eluded them, spreading and storing their specimens as they go. To date their combined collection exceeds 15,000 spread specimens, representing about 80% of the North American butterfly species. June's primary concentration is on the Lycaenidae; Floyd leans more towards the Pieridae. Having become an excellent preparator, she deals with most of the catch. Their summer wanderings regularly include attending the Annual Meeting of the Lepidopterists' Society, so June and Floyd are well known to many members.

One of her pastimes is talking with school, church, and service groups in her area,



helping their members to become aware of and to enjoy the butterflies around them. Despite all her experience, she is still "strictly an amateur, enjoying all the aspects of butterfly collecting as a hobby". Since the comment received most commonly from readers by the present Editor is that "the NEWS is for the amateur and we want you to keep it that way", June should be the right person for the job.

And maybe we could even get her interested in moths. Then she'd never run out of species to pursue.



Culture Corner



GETTING DIAPAUSING LARVAE THROUGH THE WINTER.....

Diapausing larvae have always been a headache for the breeder of Lepidoptera. Larvae are much more vulnerable creatures than the neatly packaged eggs or pupae, and getting them through the winter alive is a challenge for many species. The traditional solution has been to put larvae outside in some more or less natural arrangement and let them take their chances. The fact that any at all survive the cataclysms of flood and so on described in the literature is a tribute to the extreme hardiness of insects.

My solution to the problem has been either to avoid the diapause where possible or to overwinter larvae inside under controlled conditions. Most multivoltine species use day length as the diapause cue, and rearing them with lighting fifteen or more hours a day should eliminate diapause. Many univoltine species seem to have evolved univoltinism simply by lowering the cue threshold so that any natural day length induces diapause. These can often be reared through without diapause by keeping them under artificial lighting for 18 or more hours per day. I will devote a whole culture corner to this subject sometime in the future.

When I do overwinter larvae, either because diapause is unavoidable or to store livestock for future use, I always keep larvae in tightly sealed containers in a household refrigerator. I use the same type of container for almost all the species I rear. This is a 4.5 x 6-inch plastic deli box with a tight-fitting lid. I put about 1½" of moist soil (just moist enough to stick together when squeezed in the hand) in the bottom, put a broken 100mm diameter petri dish on this, then stack 15 x 100mm petri dishes containing diapausing larvae to the top and seal the container with the lid. Any small plastic boxes would probably be as good as petri dishes, but these fit the deli containers as if made for them and are very inexpensive. The containers are stacked on the shelves of my fridge, which stays at 38 to 40°F. Most species keep well for six to eight months, but I have kept some nymphalids for over a year. Viability should be 60-80% but drops rapidly after eight months or so.

When I am rearing genera such as *Speyeria* or *Cercyonis*, that diapause as newly hatched larvae, I examine the eggs at the end of each day for larvae and try to allow them to finish eating their eggshells. Whether this affects diapause viability, I do not know. The larvae are removed with a brush and put into petri dishes, which have been lined with circles of paper towel moistened with a drop of water. I put up to twenty or so larvae in each dish, then put the larvae immediately into the storage containers and seal them up. Allowing the larvae to dry out in the dishes will greatly reduce diapause viability. (It is a puzzle to me how *Speyeria* and *Cercyonis*, which are common in semiarid habitats, avoid late summer larval desiccation in nature.) The containers should then be put in a cool, dark place for a week or so to allow the larvae to take up their resting positions, then transferred to the fridge.

Most species diapause as partly grown or nearly mature larvae. Satyrids such as "*Euptychia*" and *Satyroides* gradually stop feeding as the time of diapause approaches. After an individual has remained in the same position for two weeks or so, I would consider it to be in a diapause resting position. Since I rear satyrids in the same sort of petri dishes used for overwintering larvae and most

individuals take up a position on the lid or side of the rearing dish, this can then be used as the diapause storage dish. Larvae on plant material should be gently removed and allowed a week or so to take up a new resting position in the diapause dish. Plant material in the dishes may mold during cold storage and reduce the viability of the larvae.

In nature melitaeine nymphalids and "*Boloria*" larvae usually leave the foodplant and take up diapause positions in dead leaves and other litter on the ground. *Phyciodes* and *Charidryas* larvae in culture form resting groups in curled leaves and other protected spots. These larvae should be gently removed (they will drop off if prodded with a brush) and put into diapause dishes as described above. A couple of weeks in a cool dark place will allow them to find new resting positions and, in the case of *Phyciodes*, molt into the third instar.

Petri dishes are obviously too small for comparatively large larvae like some arctiids. I have had good luck with these using as a container a coffee can filled with moist dead leaves fluffed up and with the larvae scattered through the can. This is sealed with the plastic lid provided. Any reasonable tight container filled with dead leaves should do the trick.

When the time comes to terminate diapause, I bring the containers out, moisten the towelin liner in each dish with a drop of water, put in a few sprigs of foodplant, and stack the dishes in sealed 11 x 11" ziploc bags at room temperature and light. Some larvae should begin feeding in about a week, but the more stubborn may take up to three weeks or so. I go through the dishes every several days, removing feeding larvae and discarding moldy corpses and renewing the foodplant. Much of the total mortality occurs at this point, perhaps either because the beginning of feeding requires reserves of strength that some larvae do not have, or because my techniques do not convince some larvae that spring has arrived.

Every group I have tried has had its peculiarities. Some larvae (e.g. *Neonympha mitchellii*) seem to need to be kept a little moister during storage than others (e.g. *Cercyonis pegala*). *Phyciodes* are very tough, survive much neglect, and remain viable in the fridge long after their normal diapause span. *Charidryas harrisii* and *C. nycteis* come out of cold storage looking very good, but many larvae die after feeding to a very limited degree. There is much scope here for some simple experiments on different degrees of cold exposure during diapause, of gradual warming over, say, several weeks, and other factors that may affect viability and readiness to resume feeding after removal from the cold.

(Charles G. Oliver)



CATERPILLARS. PICKLES, AND ICE CREAM.....

The current knowledge of the systematic classification of the Lepidoptera is based to a great degree on studies of the caterpillars. The writings of H. G. Dyar during the period about 1890-1910 and S. B. Fracker in 1915 are examples of some of the earlier major contributions. Although the value of the larval characters has been recognised for some time, there are relatively few papers on caterpillars. The problem can be attributed partially to the relative scarcity of study material. Obtaining adequate series of caterpillars requires rearing adult associated specimens, which usually is quite time-consuming. Consequently most people avoid working with caterpillars, especially when they find out that preserved caterpillars usually have very little aesthetic appeal. In spite of these obstacles, there is growing interest in working with caterpillars, and your Editor thought that some information on preserving caterpillars might stimulate more activity.

"Recipes" for preserving caterpillars are almost as numerous as for making pickles and ice cream. The most primitive procedure is that of compressing a caterpillar

against a white card with transparent tape and mailing it "special delivery" for identification. However, this is not recommended unless time is very critical and your will is about to be invoked. If not, it soon will be! The more advanced (and acceptable) techniques fall into two categories: drying the caterpillars or using a liquid preservative. Dried caterpillars retain their coloration better than those preserved in other ways and are best obtained through freeze-drying. Procedures for this technique as applied to caterpillars were detailed by R. B. Dominick (J. Lep. Soc. 26: 69-79) and more recently by F. R. Hedges (J. Lep. Soc. 30: 277-283). Because of the relative slowness of the procedure, the application of vacuum freeze-drying is perhaps best suited for small numbers of specimens that are to be used for display purposes.

Caterpillars preserved in a liquid solution can be processed faster than by using other techniques, and the resultant specimens permit one to dissect anatomical structures with relative ease if this is an important consideration. The main disadvantage is that the specimens lose certain colors very rapidly. However, this can be partially compensated for by combining color photography with liquid preservation.

The basic liquid preservative is alcohol, isopropyl or ethyl. Keep in mind that many caterpillars will turn black, making them useless study specimens, if they are placed directly into alcohol while alive. The discoloration is caused by an enzymatic reaction which can be prevented by killing the caterpillars either in boiling water or in a solution of glacial acetic acid (vinegar will work in an emergency) plus alcohol. The latter technique was taught me by Dr. J. G. Franclemont, Cornell University. More specifically it consists of the following steps:

- (1) Kill in nine parts 70% alcohol plus 1 part glacial acetic acid.
- (2) Inject the same solution anally with a hypodermic syringe and needle to distend the body. Protect your eyes from any alcohol/acid solution which may accidentally discharge from the body.
- (3) Return the specimen to the original solution and allow to soak for 24 hours.
- (4) Return the specimen to 70% ethyl alcohol and store in a tightly closed vial.

Modifications and elaborations of this technique can be found in A. Peterson (1948, Larvae of Insects. An Introduction of Nearctic Species. Part 1. Lepidoptera and plant-infesting Hymenoptera. Published by the author; Columbus, Ohio. 315 p.). However, from my experience the 4-point technique just outlined is quite adequate for medium and large-sized caterpillars: the fixative solution is much easier to prepare, i.e., the kerosene, dioxane, etc., of the more complex fixatives are eliminated; and the processed specimens are uniformly distended.

If very small caterpillars are to be preserved, it may be easier to kill them in boiling water for general preservation. After the specimens have been killed, they may be stored in 70% alcohol. However, as Peterson noted, it sometimes is necessary to pass the caterpillars through lower concentrations of alcohol (25% and then 50%) before putting them into the 70% (Peterson recommended 75%), in order to keep them from collapsing. A few hours at each intermediate concentration is sufficient.

Adapt the system or technique that best fits your particular needs and situation. Above all, don't be afraid to be innovative.

(George L. Godfrey, Illinois Natural History Survey, 607 E. Peabody, Champaign, IL 61820)

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YES! YOU NEED NO BANANAS!.....

For the first time, in temperate and cold countries, it is now possible to rear at least one species of Caligo (the spectacular South American Owl Butterflies) without a greenhouse. My Caligo memnon larvae have, since hatch-

ing, thrived magnificently upon fresh-picked leaves of Sparganium minimum, the Least Bur-Reed, a succulent, aquatic plant found only locally in certain cold English, North European, and North American peat bogs. By the 3rd instar they were strong enough also to bite and ingest the far tougher emergent foliage of Sparganium erectum, the Branched Bur-Reed, which grows more widely by lakesides in Europe and is represented by several closely allied species, in similar habitats, in the USA. However, in my experience, tender S. minimum appeared to be essential as a starter, at least.

To grow S. minimum in quantity, I use plastic washing-up bowls, 12 x 15", half filled with ordinary earth, and topped up with water. Old pails, sinks, or baths would do just as well. It is necessary only to press a couple of plants firmly into each container, and then to place outside in full sun and rain. Profuse foliage will grow rapidly, and it is a most attractive plant.

Be sure, though, to obtain and multiply your Sparganium stock long before acquiring Caligo ova. The larvae become enormous, and will consume a terrific quantity of foliage during their lifetimes. With care one can, up to a point, keep picking out single leaves and keep pace with the growth of the bowlful. Leaves should be served crisp and dry upon soft absorbent tissue and your young gourmets will wax fat and lusty. Mine are at the time of writing 2.5" long, a month old, and so far proving as easy to rear as Gipsy Moths, just in clear plastic boxes in the bedroom. I keep them in two's, as they often rest in close pairs, boby to body or head to head. They mostly feed at night.

To date, I have heard of Caligo memnon being reared only on Banana foliage, in greenhouses. The relationship between tropical Banana and aquatic Bur-Reed is remote enough: nevertheless, certain obscure strands of evolutionary logic led me to try it out, among several dozen other native English plants that were not accepted. As an experienced botanist, with access to British botanic gardens, I would be quite willing to experiment with other tropical butterfly livestock, and to publish the results (both good and bad) in the NEWS, if any reader at any time feels his surplus ova might be usefully expended upon this kind of systematic quest for new rearing knowledge, to be shared freely with all.

(Please accept, though, that I would probably have no livestock to offer in exchange for it, nor do I wish to buy or sell anything live. Brian Wurzell, 47 Rostrevor Ave., Tottenham, London N15 6LA, ENGLAND)

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GRADING CLASSIFICATIONS FOR LEPIDOPTERA.....

When a request was made in the NEWS (1980, p. 41) for comments on quality-grading systems for Lepidoptera specimens, the response was not overwhelming. The systems offered by the three (!) respondents did not in any way agree, and the criteria for grading were for the most part too subjective to reduce ambiguity.

The following opus from Russell A. Rahn is therefore most welcome. It is not intended to be "official" — just helpful.

Since the exchange of specimens is an activity in which many of us engage at one time or another, we frequently share mutual concerns over the quality of material offered or received. It would clearly be an advantage to "standardize" the grading procedure somewhat, so that a given quality rating would have the same, or nearly the same, meaning to all parties. Having been involved at one time or another in both philately and numismatics, I thought that perhaps a similar plan could be adapted for our purposes. The following are verbal descriptions of a grading system which might be applicable to Lepidoptera. Beauty being proverbially in the eye of the beholder, a system of this kind is always subject to local interpretation. Thus, inherent weaknesses are with us even before



LARAMIE MEETING: THE VILLAINS OF THE PIECE.....

1- Meeting Chairman Cliff Ferris, spell-binding Gloria Harjes and President Lincoln Brower. 2- Jerry Powell accepting Karl Jordan Medal from Linc Brower. 3- Robert Covell calling out door-prize winners, assisted by father Charlie. 4- Formal audit of Treasurer's books: Ron Leuschner, Stan Nicolay, Deane Bowers, and spectator Roy Kendall. 5- Carol Boggs, Bob Platt, George & Cheree Godfrey. 6- Ron & Les Stockton. 7- John Lane, Deane Bowers. 8- Lincoln Brower, Paul & Ann Milner. 9- Sally Marrone, Jo Brewer, Gary Marrone. 10- Keith Brown & family, from Sao Paulo, Brasil. 11- Larry Gall, rather unhinged by the fact of life being expounded to Terry Clifford, Lee Miller, and Katy Wilkinson by Julian Donahue. 12- Jon Shepard, Lee & Jackie Miller. 13- Shadows are longer than nets are longer than collector Katherine Covell. 14- Jon & Sigrid Shepard, Deane Bowers, ? Doug Mullins, Jim Scott, Don Lafontaine. 15- Ron Leuschner, Bill & Hazel Tilden, Elaine Hodges, Mrs. & Jerry Powell. 16- Rancho Bagdonas & Wyoming prairie, site of scenes 12-15, & 18. 17- Merrill Peterson & Jim Pearson, who brought themselves from Seattle. 18- Jerry Powell & S.N.A. Jacobs, from England, sampling prairie micros. 19- Field trip picnic in foothills of Snowy Range. (Photos: #18 J. Donahue, others, Ed.)

beginning. Nevertheless, if individuals exercise a reasonable approach toward objectivity, perhaps a few disappointments could be avoided.

Condition:

A+ Specimens in this category are absolutely perfect, with no flaws, wing chips, tears, or rubs. They also are fresh from chrysalis or pupa, and brightly marked, showing no signs of being on the wing or "flown". These specimens also show no evidence of any eclosion problems.

A Specimens in this category meet the requirements of "A+", but may have some slight evidence of having flown. This slight loss of pattern must not obscure or remove any of the markings, however, and all pattern elements must be clearly visible and relatively crisp.

-OR-

The specimen in hand will be fresh and unflown but may have a small chip in one wing only, not exceeding one square millimeter in approximate dimensions.

A specimen in "A" condition may not have both flaws: ONLY ONE.

A- This category (called "A₂" by some collectors) may have BOTH the flaws mentioned in the "A" category, or it may have ONE slightly larger chip in one wing only, not exceeding 2-3mm. in maximum cross-section. When a chip of this size is present, the specimen should otherwise appear in fresh and unflown condition, with no pattern loss or erasures.

B Specimens in this category may have small chips (maximum of 2-3mm. as before) on each of the wings, or may have a single chip or tear on one wing which would total the area of the smaller chips.

-OR-

The specimen will not exhibit any tears or chips, but be rather flight-worn, with a deterioration of some parts of the wing pattern, especially along the marginal and submarginal areas.

C Specimens in this category will exhibit larger tears and chips, even to the loss of 25% of two or more wings, or 75% loss of one wing, AND exhibit considerable pattern loss due to long flight time.

Note: Many specimens damaged by beak tears from predatory birds will fall into this category due to wing damage, but otherwise be in considerably fresher condition with respect to wing pattern wear. This should be indicated on the offerata list, since such damage may not matter to some collectors, or may even be desirable as an item relevant to research.

D Specimens in this group show substantial damage to all wings and loss of pattern to almost all the remaining portions. Within genera exhibiting many closely patterned species, identification may not be possible by wing pattern alone (where this normally would have been possible in higher grade specimens).

Specimens not even meeting these requirements for level "D" may be designated with further letters of the alphabet, but such a continued breakdown seems largely unnecessary, as most collectors would not wish to receive such material in an exchange anyhow.

Occasionally one sees use of the expression "museum quality". I am not at all certain what this may mean, but judging from the context it has seemed to imply that a museum welcomes material of significantly less quality than a private collector might. From past experience I can say that this depends on the individual curator, and the entire spectrum exists as to what might be acceptable for a museum collection. My own personal opinion leans in the direction that would not place anything into a museum collection that I myself would not want to display — unless the curator has specifically stated to the contrary. Museums with a staff member currently involved in revisionary studies may be able to use damaged material for dissection purposes.

A final word, concerning the use of this system. It would seem appropriate to me that collectors making up

offerata lists should clearly indicate their preferences in the quality of material they wish to receive, and offer nothing less than they would be willing to accept themselves in return. This approach may be bent a bit in the case of choice material, but offerata lists should be assumed to consist of specimens in at least "A" condition unless otherwise stated.

It is recognised from the outset that the descriptions given above will not meet the needs of all collectors and exchangers. In any event, a beginning has been made, and if it avoids a crisis or two — happy exchanging.
(Russell A. Rahn)



Notices

EASTERN U. S. BUTTERFLY ATLAS: 1982 STATUS REPORT....

During 1981 an attempt was made to initiate a county atlas for butterflies of the eastern 31 states. This was patterned after Ray Stanford's excellent Rocky Mountain effort. Last year approximately 70 Society members contributed data. In most cases, an effort was made to draw on persons known to be compilers for their states. In other cases, such as New York, recent maps were already available. The compiler also reviews annual summaries and all available literature. Records have been taken from some collections, although the American Museum and some other major collections have not yet been visited.

I have species-county charts for each state and still need data from anyone who wishes to contribute and receive an atlas in exchange. States where the biggest gaps exist are Vermont, Rhode Island, South Carolina, Kentucky, Ohio, Indiana, Minnesota, and Alabama. Most states have areas where few records have been available.

Beginning in 1983, a new atlas effort will be initiated utilizing the Universal Transverse Mercator Grid. Hopefully, all 48 contiguous states and adjacent areas of Canada and Mexico can be included as well. It is hoped that state or regional coordinators can be established to verify questionable records.

I shall be happy to answer any questions. The Lepidopterists' Society may wish to co-sponsor the effort in the future. For the first time, members can readily identify distributional gaps and areas which need survey.

I also hope other insect groups, including some moth groups, may be atlased in the future. (Paul A. Opler, Secretary, North American Invertebrate Survey, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, DC 20240)

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COLLECTING GUIDELINES....

An outline of Collecting Guidelines, called for by a poll of the membership in 1979 and compiled by the Committee on Collecting Policy in 1980-81, has now received the attention and approval of the Executive Council and is printed in this issue of the NEWS.

What are "guidelines"? According to Webster, they are "an indication or outline of policy or conduct". They are not by-laws to which members would be required to adhere. They are not a list of "thou shalt nots". They are an invitation to lepidopterists to "examine the rationale and practices of collecting Lepidoptera, for the purposes of governing their own activities".

It is of significance that in one area after another throughout the world, all collecting is being arbitrarily prohibited, in part because collectors have not been able

to present a rational case for the values and the harmlessness of restrained collecting. Possibly these Guidelines, and their adoption in practice, may serve to avert or even reverse such blanket prohibitions.

It is the opinion of the Committee that local appendices need to be devised, which will detail particular areas closed to collecting, local regulations, locally fragile populations, collecting procedures which are detrimental to particular species, etc. Since these details vary both geographically and over time, they are not included in the formal guidelines. Their development and availability will be outlined periodically in the NEWS.

The Guidelines are stapled as a removable folder in the center of this issue. Copies will be supplied to new members in the future, and copies may be obtained for other organizations or agencies by forwarding a self-addressed stamped business-size envelope to the Treasurer. Private reproduction, with acknowledgement of source, is permitted.

I wish to express appreciation for the invaluable contributions and cooperation of the committee members: H. David Baggett, Keith S. Brown, Jr., James R. Merritt, Lee D. Miller, Mogens C. Nielsen, Kenelm W. Philip, and Robert M. Pyle; and of the consultants: Richard A. Arnold, Ian F. B. Common, Charles V. Covell, Jr., and the late Robert Silberglied.

Dave Winter, Chairman
Committee on Collecting Policy

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SEASON SUMMARY 1982 COMING UP.....

Members contributing information to the 1982 Season Summary, to be printed in the Mar/Apr issue of the 1983 NEWS, should see that their reports reach the Zone Coordinators no later than Friday, 28 January 1983 (since the coordinators must have their summaries in the hands of June Preston, the new Editor of the NEWS, no later than 28 February).

Use of butterfly names as in the Miller & Brown list should simplify the work of the coordinators. The new moth list from Classy may be used if it arrives in time! Please include the county with place names, and cull your own reports, limiting them to such species as are unusual in the area, new records, range extensions, new larval foodplant and life history observations, predation, etc.

The addresses of the Coordinators are as follows:

1. SOUTHWEST (AZ, NV, CA & HI): Robert H. Langston, 31 Windsor Ave., Kensington, CA 94708.
2. PACIFIC NORTHWEST (OR, WA, B.C.): Jon Sheppard, Dept. Zool., Brandon Univ., Brandon, Manitoba, CANADA.
3. ROCKY MOUNTAIN REGION (Alta., MT, WY, ID*, UT, CO, NM): Ray Stanford, 720 Fairfax St., Denver, CO 80220.
4. GREAT PLAINS (Sask., Man., ND, SD, NB, KS, OK, TX): Hugh A. Freeman, 1905 Lewis Drive, Garland, TX 75041.
5. EASTERN MIDWEST (MN, WI, MI, IA, IL, IN, OH, MO, KY, WV): Mogens C. Nielsen, 3415 Overlea Dr., Lansing, MI 48917.
6. SOUTHEAST (AR, LA, TN, MS, AL, FL, GA, SC, NC, VA & Bermuda): Dave Baggett, 14406 North 22nd St. #169, Lutz, FL 33549.
7. NORTHEAST (so. Quebec, Maritimes, New England, NY, NJ, PA, DE, MD, DC): Dave Winter, 257 Common Street, Dedham, MA 02026.
8. FAR NORTH (Siberia, AK, no. Canada, Newfoundland, Greenland): Kenelm W. Philip, Inst. Arct. Biol., Univ. of Alaska, Fairbanks, AK 99701.
9. NORTHERN NEOTROPICS (Mexico, C.A., Antilles): Eduardo C. Welling M., Apartado Postal 701, Merida, Yucatan, MEXICO.
10. SOUTH AMERICA: Boyce C. Drummond III, Dept. Biol. Sci., Illinois State Univ., Normal, IL 61761.
11. ONTARIO: Q. F. Hess, 11 Esgore Drive, Toronto, Ont., CANADA M5M 3P9.

* The optimum zone location for Idaho and other possibly uncertain states will be examined this coming year when the overall design and goals of the Summary are reviewed by the Executive Council.

"ADVICE ON SEASON SUMMARY" CONTINUED.....

The request for advice and opinions on the Season Summary (NEWS, p. 52, 1982) has brought a volume of responses far in excess of any subject raised in the NEWS in the last six years.

It is too soon to summarize the opinions aired, other than to say that almost everyone responding thinks the Summary is of value and wants it to continue, with various changes and improvements. By contrast, one dissenter went so far as to say that "if anyone has really found back Season Summaries of any value, I will gladly eat one of my Eurytides marcellus". (With relish, David, and take care to remove the pin first!)

The effort and costs involved in the Summary are such that it is vital that it be compiled in such a fashion as to be as useful as possible. While I shall no longer be editing the NEWS, I plan to work with this matter during the winter and present your recommendations to the Executive Council in July.

So keep your comments coming!

Dave Winter

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SEASON SUMMARY REVISITED.....

ZONE 1: HELP! HELP! Indeed the contributor stated it was Pyrgus communis in Sacramento County, CA. The guilty party for the name change was solely your coordinator! A little background and a plea are in order at this time.

Material received from contributors covers the whole spectrum, from almost illegible handwriting in no particular sequence to data typed neatly in perfect checklist order. Many lists have a rather extensive list of species per date, which requires the coordinator to pick out the few (if any) that may be significant. Some of the more difficult reports list part only to the species level and others down to subspecies. To be consistent, I will use my judgement (or make an educated guess) as to which subspecies the contributor meant. An example was contributed for the 1980 Summary: Speyeria coronis was reported at Soda Springs and Lang Crossing (WEST SLOPE). I took the liberty of adding subspecies snyderi to these, as nominate coronis is found in the Coast Ranges of CA. Other examples at various times have been philenor, napi, halesus, melinus, battoides, atalanta, etc. All of these go under various subspecies taxa when referring to California populations. In general, I would know the correct subspecies placement, and have had no complaints in the past.

Now, going back to Pyrgus. This mix-up was due to several factors: 1) I had not yet received my Miller & Brown Checklist, and the old dosPassos checklist has one as a subspecies of the other. 2) Many years back, THE skipper specialist determined those in my personal collection from California (and Arizona) as albescens. 3) The contributor has the specimens — and in this case I would not be able to tell one from the other even if I did see them. 4) The host plant, Modiola caroliniana, is an aggressive expanding weed of sandy soils in the Central Valley of California where one would "expect" either to occur.

Therefore, my plea is to be consistent in your reports — if you do not state them to subspecies level, I will continue to "correct" them. Another point is that if you are NOT certain of a determination, DO NOT REPORT IT at all. Very brief reports are also requested, rather than a long listing of what was present on your vacation to a new territory.

Plans are afoot to redefine the content of the Season Summary (NEWS 1982 p. 52). Feedback is requested by both Dave Winter and the ZONE 1 Coordinator.

(Robert L. Langston)

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ZONE 7 CONTRIBUTORS, PLEASE NOTE.....

When compiling reports for the 1982 ZONE 7 Summary,

THE LEPIDOPTERISTS' SOCIETY

STATEMENT

of the

COMMITTEE ON COLLECTING POLICY

PREAMBLE

Our ethical responsibility to assess and preserve natural resources, for the maintenance of biological diversity in perpetuity, and for the increase of knowledge, requires that lepidopterists examine the rationale and practices of collecting Lepidoptera, for the purpose of governing their own activities.

To this end, the following guidelines are outlined, based on these premises:

- 0.1 Lepidoptera are a renewable natural resource.
- 0.2 Any interaction with a natural resource should be in a manner not harmful to the perpetuation of that resource.
- 0.3 The collection of Lepidoptera
 - 0.31 is a means of introducing children and adults to awareness and study of their natural environment;
 - 0.32 has an essential role in the elucidation of scientific information, both for its own sake and as a basis from which to develop rational means for protecting the environment, its resources, human health and the world food supply;
 - 0.33 is a recreational activity which can generally be pursued in a manner not detrimental to the resource involved.

GUIDELINES

PURPOSES OF COLLECTING (consistent with the above):

- 1.1 To create a reference collection for study and appreciation.
- 1.2 To document regional diversity, frequency, and variability of species, and as voucher material for published records.
- 1.3 To document faunal representation in environments undergoing or threatened with alteration by man or natural forces.
- 1.4 To participate in development of regional checklists and institutional reference collections.
- 1.5 To complement a planned research endeavor.
- 1.6 To aid in dissemination of educational information.
- 1.7 To augment understanding of taxonomic and ecologic relationships for medical and economic purposes.

RESTRAINTS AS TO NUMBERS:

- 2.1 Collection (of adults or of immature stages) should be limited to sampling, not depleting, the population concerned; numbers collected should be consistent with, and not excessive for, the purpose of the collecting.
- 2.2 When collecting where the extent and/or the fragility of the population is unknown, caution and restraint should be exercised.

COLLECTING METHODS:

- 3.1 Field collecting should be selective. When consistent with the reasons for the particular collecting, males should be taken in preference to females.
- 3.2 Bait or light traps should be live-traps and should be visited regularly; released material should be dispersed to reduce predation by birds.
- 3.3 The use of Malaise or other killing traps should be limited to planned studies.

LIVE MATERIAL:

- 4.1 Rearing to elucidate life histories and to obtain series of immature stages and adults is to be encouraged, provided that collection of the rearing stock is in keeping with these guidelines.
- 4.2 Reared material in excess of need should be released, but only in the region where it originated, and in suitable habitat.

ENVIRONMENTAL AND LEGAL CONSIDERATIONS:

- 5.1 Protection of the supporting habitat must be recognized as the *sine qua non* of protection of a species.
- 5.2 Collecting should be performed in a manner such as to minimize trampling or other damage to the habitat or to specific foodplants.
- 5.3 Property rights and sensibilities of others must be respected (including those of photographers and butterfly-watchers).
- 5.4 Regulations relating to publicly controlled areas and to individual species and habitats must be complied with.
- 5.5 Compliance with agricultural, customs, medical and other regulations should be attained prior to importing live material.

RESPONSIBILITY FOR COLLECTED MATERIAL:

- 6.1 All material should be preserved with full data attached, including parentage of immatures when known.
- 6.2 All material should be protected from physical damage and deterioration, as by light, molds, and museum pests.
- 6.3 Collections should be made available for examination by qualified researchers.
- 6.4 Collections or specimens, and their associated written and photographic records, should be willed or offered to the care of an appropriate scientific institution, if the collector lacks space or loses interest, or in anticipation of death.
- 6.5 Type specimens, especially holotype or allotype, should be deposited in appropriate scientific institutions.

RELATED ACTIVITIES OF COLLECTORS:

- 7.1 Collecting should include permanently recorded field notes regarding habitat, conditions, and other pertinent information.
- 7.2 Recording of observations of behavior and of biological interactions should receive as high priority as collecting.
- 7.3 Photographic records, with full data, are to be encouraged.
- 7.4 Education of the public regarding collecting and conservation, as reciprocally beneficial activities, should be undertaken whenever possible.

TRAFFIC IN LEPIDOPTERAN SPECIMENS:

- 8.1 Collection of specimens for exchange or sale should be performed in accordance with these guidelines.
- 8.2 Rearing of specimens for exchange or sale should be from stock obtained in a manner consistent with these guidelines, and so documented.
- 8.3 Mass collecting of Lepidoptera for commercial purposes, and collection or use of specimens for creation of saleable artifacts, are not included among the purposes of the Society.

(Published in the NEWS of the Lepidopterists' Society, No. 5, Sept/Oct 1982. May be reproduced without permission.)

I should appreciate emphasis on a few points: (1) In order to augment Paul Opler's Atlas of Eastern U.S. Butterflies, please send along any data you have on butterfly distribution in your area by counties (if you have not already contributed this information in response to a direct request from Paul), so that blanks in the maps can be filled in and unusual occurrences more clearly defined. (2) Begin compiling complete lists of moths you have taken in your area, by counties, but retain them pro tem, so that when a plan for a similar listing of moths is crystalized (for ZONE 7, at least) your input will be available. In the meantime, report unusual 1982 moth occurrences. These two procedures will help to simplify and improve the content of future Summaries. (3) Continue to report significant observations on behavior, foodplant associations, etc.

All contributors will be acknowledged at the beginning of the zone summary, even though all contributions may not include material which gets included.

(Dave Winter)

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NEIDHOEFER COLLECTION TO MILWAUKEE PUBLIC MUSEUM.....

An article in the Milwaukee Sentinel for 3 September 1982, forwarded by Russel Rahn, indicates that James R. Neidhoefer, a local business man now retired to Florida, has over a number of years donated to the Milwaukee Public Museum his collection of some 200,000 butterflies and moths. The collection had been accumulated in part by purchase, but also by personal collecting in Taiwan, Jamaica, Mexico, and South America. The name neidhoeferi has been given to six species of moths and butterflies.

A large library on Lepidoptera accompanied the collection, which includes some 350 gynandromorphs! The collection is not on public display, but is accessible for scientific study.

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L. A. COUNTY MUSEUM CATALOG.....

The 1982 catalog of serial publications of the Natural History Museum of Los Angeles County is now available. The catalog lists the 400 papers on systematics and taxonomy that have appeared in the Museum's "Contributions to Science", "Science Bulletin", and "Science Series", including 60 entomology papers. The papers may be purchased from the Museum Book Shop; a free copy of the catalog will be sent upon request. (Museum Book Shop, Natural History Museum of Los Angeles County, 900 Exposition Blvd. Los Angeles, CA 90007)

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HELP WANTED RE CAMERA LOSS.....

Attention to anyone who was a member of the Tingo Maria collecting trip this past summer! Do you have any picture negatives of the trip from which I could get copies made. I am the collector who dropped his camera into the river at the 12 km. site. Many fine memories, but "a picture is worth a thousand words". Please assist me if you can. All negatives will be returned; no slides, please. Gasper Danish, 1017 Second Ave., Altoona, PA 16602.

XXXXX

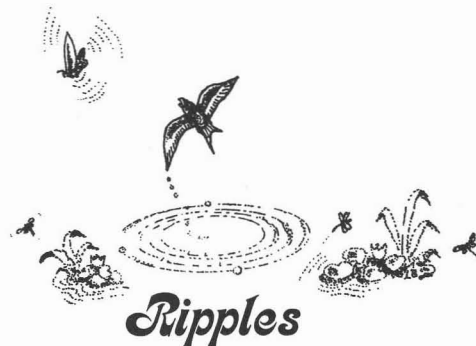
EARTHWATCH TRIPS TO STUDY MONARCHS.....

As a part of their continuing study of population dynamics of the overwintering Monarch butterflies, Lincoln Brower and William Calvert are leading two Earthwatch teams in the transvolcanic range of Mexico, where they will map and estimate colony size and numbers and sample hibernating clusters in search for individuals banded earlier by other teams in Texas. Participants will be camping out in shared tents, rotating in camp chores al-

ong with staff members, at altitudes of 10-11,000 ft. It offers an experience unmatched anywhere in the world.

The dates are 4-18 January, and 19 January to 2 February, 1983. Share of costs is \$1225, from the Mexico City staging area.

For detailed information contact Earthwatch, Box 127, Belmont, Massachusetts 02178 (617-489-3030).



Dear Ripples:

Just a brief note on the identifications of the picture from the Laramie meeting. I am not surprised that Ferris did not recognize the photos of my family as it was the first annual meeting that we have attended. #14 is my son Chuck, #16 is my son Don, #17 is my wife Ann, and #18 is myself, Ray Albright. I am certain that #33 and #34 are not Doris and Stan Jewett; I do not know who they are. Stan is almost certainly #81 and Doris is beside him directly behind #55 — an un-numbered headstone.

We greatly enjoyed the convention, and the cookout at the Bagdonas residence was outstanding.

Yours very truly,
Ray Albright
Dayton, Oregon

Dear Jo:

In parts of the southwest this summer a number of migrant species have turned up, far afield of their normal range. These include the following:

Erebus odora: Davis, Yolo Co., CA, fide A. Shapiro.
Phoebis sennae: Toiyabes, NV, and Deep Creek Range, UT.
Eurema mexicana: Monitors and Toquimas, central NV.
Nathalis iole: central ranges of NV and UT, from Toiyabes to Deep Creeks.
Hemiargus isola: Toiyabes to Stansburys.

In addition, at Jerseydale, Mariposa Co., CA, Precis coenia adults were common in August and there larvae were very common. Leptotes marina was taken there for the first time. Also, in 1982 there were unusually low populations locally of Speyeria, Mitoura, and Saturnia menodocino (though Danaus plexippus, a migrant, was common in August). In central Nevada normally common species fairly scarce. It would be useful for purposes of comparison this year if contributors to the Season Summary would pay particular attention to the migrant species in their reports.

In 1981 there was an extreme drought in California and Nevada, followed by above average rainfall in the winter in the northern and central parts. Libytheana bachmannii records indicate that a pronounced rainy season following a severe drought can trigger large migrations. This is also true of Celerio lineata (see Shields, Toward a Theory of Butterfly Migration, J. Res. Lepid. 13: 217-238, 1974).

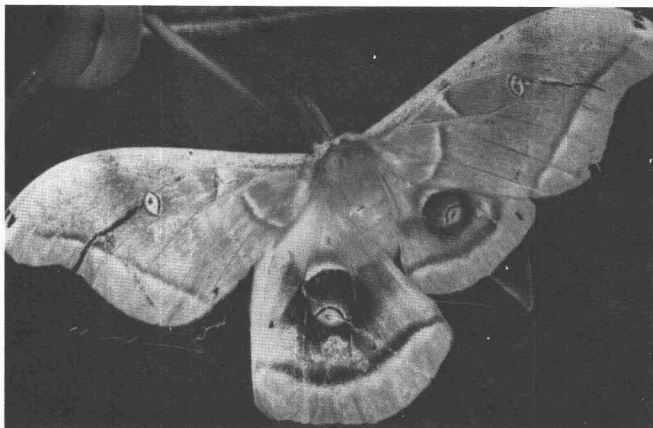
1971 was apparently the last big migration year for L. bachmannii larvata. Thus 1982 as a notable migration year seems to correspond with the theory of 11-year solar periods (see Clayton, H.H., 1940, The 11-year and 27-day Solar periods in Meteorology, Smithsonian Misc. Coll. 99(5); 20 p.).

Sincerely,
Oakley Shields
Mariposa, CA

Dear Ripples:

Enclosed is a picture of a lopsided Polyphemus moth which flew into a lighted backyard porch in Punta Gorda, Florida, in February. A friend brought the picture to me. He is interested in the strange genetic quirk that gave this moth its stunted right hindwing.

Sincerely,
Molly Monica
Berkeley Heights, NJ



Dear Ripples:

How did Horama texana didasys Grote get to New Jersey?

Eric Quinter, who was good enough to name some of my specimens, pointed at one in particular as the scarcest one in the box. This was Horama texana. According to Holland, page 100 and Pl.XIII, fig. 9, this wasp-like syntomid moth is the only one in its genus within the limits of the U.S. It was caught at BLL at Dr. Brooke Worth's farm in Cape May Co., NJ 5 June 1981. Southern sphinxes and Erebus odora were caught at those lights before, being fast fliers. Obviously, this fragile texana did not fly all the way here from Texas. The question is: How did it arrive in New Jersey? I am anxious to hear some suggestions from our readers.

Joseph Muller
R. D. 1, Lebanon, NJ

Dear Jo:

Sorry to contradict a lady, but your Maine record of E. claudia from Waldo County "far N.E. of previous records", will have to defer to the band-box fresh female I took a great many years ago at "Foster Field", which is a local landmark right at the base of Mt. Katahdin, Piscataquis County. Honest Injin!

Apologetically,
Paul Grey
Lincoln, Maine

Note: Ball-park calculations with a 10" ruler on a Nat. Geographic map which does not show driving mileage, indicates that, once back on the mainland, Mt. Katahdin is indeed something like a 160 mile drive north of the field on Islesboro in which I captured my E. claudia. However, I am only conceding a one-dimensional victory to you, as the base of Katahdin is absolutely due north of Islesboro and a distance of only 110 miles as the butterfly flies, according to my trusty ruler. After all, what are a miserable 50 more miles to a butterfly who, when found on Islesboro, was sufficiently beat-up to have flown there all the way from Florida?

Rebuttally yours,
Jo Brewer

Dear Jo:

Re David Wright's observations on Lepidoptera captured by ambush bugs: As a grammar school boy much interested in insects, I had noticed dozens of these ambush bugs on goldenrod and daisies, and watched them capture

butterflies and other insects. The slaughter was terrific: bodies all over the flowers. As I remember, the butterflies were most commonly pierids, both white and yellow, the most common butterflies of the area. This was in Longueuil, Quebec province, on the river opposite Montreal, 1917-1921.

I was intrigued at the time, as I had never seen reference to such dangers to butterflies in any of the few books on insects to which I had access.

Sincerely,
Don Thomas

Dear Ripples:

I feel that the NEWS should not be used to express animosity between members, which can only serve to polarize the members and thus do more harm than good.

Members should voice their opinions along philosophical lines which serve to inform and to expose the members to differing points of view. We are each responsible for our own words and actions in the eyes of the public. Comments should be screened so as to avoid a situation whereby anti-collecting pressure might adversely affect collecting privileges through legislation or other political action. Many laymen have difficulty in understanding the complexity of the need to collect from a scientific standpoint, as opposed to commercial collecting. In other words, writers should shape their input in a positive and constructive way!

Dave Baggett
Lutz, Florida

Dear Jo:

In "Ripples" of the July/Aug 1981 NEWS, Bruce Ellis of Cleveland complained about not getting answers to his letters. I solved the problem by enclosing a self-addressed stamped envelope or postcard. This is good only within the country, but I do enclose a self addressed airmail envelope in foreign letters (except aerograms, in which enclosures are not permitted). The results have been good.

Incidentally, your trip to Mexico to see the Monarchs must have been great. You know, I have been tagging Monarchs for some thirty years. My furthest recapture was in Kansas, a somewhat unusual westerly flight. I do hope the Mexican Government will protect the roosting sites in Mexico. Will it help to write my congressman?

Sincerely yours,
Ray. W. Bracher
South Bend, Ind.

Ed. note: It might, but a letter to Governor Cuauhtemoc Cardenas of Michoacan, Mexico, might have more leverage. He is very receptive and interested. It would certainly do no harm to try both.

Dear Jo:

This is prompted by Oakley Shields' complaint in the May/June "Ripples" and by your Editor's note. As a non-cladist — who nonetheless teaches about cladistics in a couple of courses at U.C. Davis — may I be permitted to comment?

Cladistics represents the second wave of rebellion against conventional taxonomy in my lifetime, the first being phenetics (or "numerical taxonomy"). Those old enough to remember the phenetics wars of the early sixties surely recall the bitterness, the animosity, the political positions hardened in concrete that characterized the "intellectual climate" of systematics at that time. Now it's all happening again. Cladistics is an attempt at a consistent, logically sound, reproducible basis not only for classification but for phylogeny reconstruction as well. In the view of practicing cladists, the two are inseparable. The merits and demerits of cladistics have received an extensive airing in the biosystematics "press". The ad hominem tactics of some of the principal actors in the struggle between cladists and non-cladists has even gotten the subject into the public press.

When phenetics was the focus of similar controversy, most practicing taxonomists simply ignored it and hoped it would go away. The more extreme aspects of it eventually did (such as the "nonspecificity hypothesis"), but it did produce a lasting change in the way one approaches a systematic problem; it is increasingly rare for systematists to do all their work qualitatively. Even if most workers cannot claim to be up on the latest multivariate techniques (not that they would want to be), they are aware that some sort of operational rationale for what they do is required.

Similarly, the most doctrinaire aspects of cladism will go away, but one thing will not: the logical process of inferring the directionality of evolution using derived characters. Not that this is new to cladism. Most conventional taxonomists did it anyway, perhaps inexplicitly. It has been the standard procedure of Drosophila geneticists reconstructing phylogenies from inversions for decades now. But the explicit emphasis on this logic is a distinctive contribution of cladism; it is valuable and will linger long after the arrogance and the name-calling and the multiplication of intermediate ranks within the hierarchy have vanished into historical oblivion.

With reference to biogeography, cladistics is loosely joined with a movement called "vicariance biogeography", whose grandfather is Leon Croizat, mentioned by Shields. Vicariance biogeography in effect claims that species are more permanent than geography, and that the commonest mode of speciation is the result of the division of a previously continuous range by creation of a barrier — rather than by colonization events, which are "dispersalist" and, to some people, an ideological no-no. This movement has derived much impetus from plate tectonics. The adherents of vicariance biogeography, like those of cladistics, tend to be intolerant and aggressive. As in systematics, however, there are useful lessons embedded in the usually overblown and sensationalized rhetoric, and these will persist after the tumult and the shouting have died. For a balanced overview of the state of biogeography today, I refer the reader to volume 22, number 2, of the American Zoologist (1982), which contains an excellent symposium on "Alternative Hypotheses in Biogeography".

I agree with Oakley that the accumulated wisdom of biogeography (and of systematics!) should not be discarded and the discipline built entirely anew according to ideologically-motivated prescriptions. At the same time, whatever vicariists and cladists are trying to tell us — however much they obscure it with their inflammatory rhetoric! — will be lost to us unless we take the time and trouble to examine their ideas. No paper with a valuable message should be rejected because it is not ideologically pure. On the other hand, the cladists and the vicariists do have a point when they tell us that most of systematics and biogeography has been intuitive, experiential, and of a story-telling nature. If we can do better, we should — not necessarily their way, though!

Yours for creative syncretism, Art Shapiro
Davis, California

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A LESS THAN SATISFACTORY COLLECTING TRIP.....

We have a letter from Greg Meyers, of Joplin, Missouri, with regard to a recent rather hazardous collecting trip in Mexico. This abstract is included for the benefit of those who may be planning similar excursions.

Greg and a companion parked their car on highway 101 a few miles south of Ciudad Victoria and descended into Canyon de Novillo in search of Papilio, a procedure that had been safe on other trips. On their second return to the car four hours later, the vehicle had been broken into and emptied of all valuables and belongings except for a few nets. Greg's efforts to obtain information from a peon who drove up were suspended abruptly when he noted a .38 calibre revolver placed conveniently on the front seat.

Efforts to obtain assistance from local police were tedious and unrewarding, except for issuance of a substitute for their visas.

It is Greg's conclusion that it can be risky for one or two collectors to travel alone in Mexico, particularly when a car with U.S. plates and "Turista" stickers may be left unattended. The attractions of Mexican collecting and the beautiful country being what they are, he will undoubtedly return, "under the security of a galvanized defense plan", however.

In view of the fact that many have enjoyed uneventful collecting in Mexico, and many have had cars broken into and cleaned out within our allegedly civilized United States, it seems fair to state, not that Mexico is a bad place, but that Mexico, along with any other society, has its quota of human predators. They have to be taken into account, along with sunburn and Hymenoptera.

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ON THE MAILING OF SPECIMENS.....

From time to time, in connection with a note for the NEWS or a query re identification, I receive papered specimens which are included in an ordinary envelope along with a covering letter. After passing through the rollers of the Postal Service cancelling machine, the specimen is reduced to a 2-dimensional assemblage of spare parts, possibly with wings still recognizable, if not to a pinch of dust. In one instance, even a protective Coke-bottle cap, in which some flies were carefully packed in cotton, was as flat as if run over by a freight train.

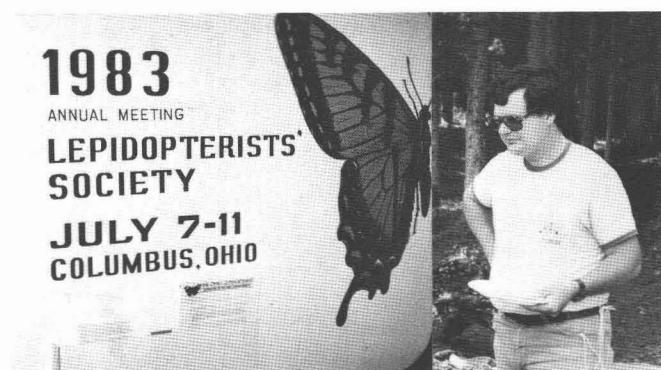
A request to "hand cancel", if supervised in person at the P.O., should theoretically help, but if the USPS employs one of its special handling gambits, such as routing your letter from Pennsylvania to Massachusetts via Arizona, it is likely to go through the rollers at the secondary station. A great many letters show a secondary postmark on the back.

A small cardboard box, not so shallow as to have crushable corners, with crumpled tissues inside to eliminate motion, will usually give enough protection.

Never trust an envelope!

Ed.

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1983 Meeting Chairman Eric Metzler, of Columbus, Ohio, planning the next Annual Meeting. Include it in your plans for next summer.

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BOOK NOTICES.....

Richard S. Fisher has acquainted us with a series of books on "Butterflies of the South East Asian Islands", by Etsuzo Tsukada and Yasusuki Nishiyama, covering the Philippines, Malaya, and Indonesia generally, but excluding New Guinea and part of the Moluccas.

The volumes have color photographic illustrations of excellent quality on glossy paper, with text on matte; text and illustrations not juxtaposed; distribution maps, and some genitalic drawings. Japanese and English edit-

ions are available, the latter apparently in a translation which is adequate but somewhat stilted and occasionally obscure. Price of the 450+ p. 9x12" 5½ lb. Volume 1: Papilionidae is about \$150. Other volumes are 2: Pieridae & Danaidae (larger, ? \$180); 3: Satyridae & Lybtheidae; 4: Nymphalidae; 5: Lycaenidae & Riodinidae; 6: Hesperidae; and 7: supplement to vols. 1-6. The first three volumes are out in Japanese; English 1 is out, with 2 due in December. Completion is projected for June 1985.

Fisher did not feel he was equipped to vouch for the completeness or accuracy of the text, but considered Volume 1 "excellent and very helpful". Publisher is Plapac Co., Ltd., Kita-aoyama 3-3-10, Minato-ku, Tokyo, 107, Japan, with an address change after December 1982 to 3-4-7, Noge, Setagaya-ku, Tokyo, 158, Japan.

"Een voorlopige lijst van de Surinaamse vlinders van het geslacht Heliconius (A preliminary list of the Surinam butterflies of the genus Heliconius)", by Hermann J. L. T. Stammeshaus, Amsterdam, 1982. 96 p., 11 plates (b/w line drawings). Text in hand-script, photo-offset, published by the author in limited edition of 100 copies, paperback.

This book consists of an introduction in English, a summary of the concepts of mimicry in Dutch and in English, a list of the indigenous species of Passifloraceae and the foodplant species selected by each species of Heliconius, venation diagrams, and a bibliography.

There follows a listing of the various species, subspecies, and forms which the author has been able to examine, annotated with comments on biology, location of colored illustrations in other works, and distribution of specimens covered, sometimes with maps.

The body of the text is in Dutch, but is not hard to decipher with the aid of a dictionary.

Availability of this list was not stated. Inquiries may be directed to the author at Grens straat 15 hs, 1091 SV Amsterdam, NETHERLANDS.

RESEARCH REQUESTS.....

❖ Eunica data wanted: Most members of the Society will have heard of the 1981 influx of Eunica monima into south Florida. I am interested in the history of this species in Florida, and would be very grateful for any data on records that may not have been reported, not only in recent months, but also in previous years. David S. Smith, Hope Entomological Collections, Parks Road, Oxford OX1 3PW, ENGLAND.

❖ Lake County Records: Wanted, any records for butterflies and skippers of Lake County, California. Records from nearby areas of Colusa, Glenn, Mendocino, Yuba, Sutter, or Yolo Counties would also be helpful. Richard Kelsen, 29 Tiffin Ct., Clayton, CA 94517.

❖ Papilionidae immatures: preferably want preserved larvae and pupae of Baronia brevicornis, Euryades duponchelii and E. corethrus (Papilionidae) but good color photographs from various angles would also be welcome. Can reciprocate any assistance with P.N.G. deadstock. Please contact me first before sending any preserved material. Michael Parsons, Senior Entomologist, Insect Farming & Trading Agency, P.O.Box 129, Bulolo, Morobe Province, Papua New Guinea.

NEW MEMBERS, ADDRESS CHANGES.....

No lists were received for this issue: they will appear in the Nov/Dec Membership List issue. Names of new members from the last half of 1982 will be listed, by states, in the first issue for 1983, so you will be able to introduce yourselves to those in your area.

Buy Sell Exchange

Items submitted for inclusion in this section are dealt with in the manner outlined on page 9 of the 1982 NEWS (Jan/Feb issue). It was decided several years ago that prices would generally be excluded from the printed notices, except for the prices of lists and other printed matter. "SASE" calls for a self-addressed, stamped envelope. Notices will be printed once, unless entry in two (maximum) successive issues is requested.

FOR SALE: my entire collection of Papilios and Saturniidae, mostly from Indonesia & S. America, and books. Would prefer to sell as a lot but will break up. Some examples: O. victoriae rubianus, T. prattorum, Copiopteryx; "Butterflies of the Australian Region", D'Abredera. Phone or write for list to Don Bruha, 161 Oakview Dr., San Carlos, CA 94070; (?415) 592-7836.

FOR SALE: cocoons of A. luna and A. polyphemus; also a few papered A-1 A. polyphemus. James Muow, 245 Sarah Ave., Iowa Falls, IA 50126.

EXCHANGE: ova in spring 1983 of Automeris io neomexicana, A. zephyria, & Antheraea polyphemus oculea, for cocoons or ova of Rothschildia orizaba, zorilla, or forbesi. Will trade for what you have. Also have papered Hemileuca heramagnifica and a few of its egg rings to trade for ova or pupae of any other Hemileuca that eats sagebrush. Jimmie Coleman, 5812 Leta Rd. N.E., Albuquerque, NM 87107

WANT CORRESPONDENCE with anyone who has taken Citheronia mexicana, C. splendens sinaloensis, or Eacles oslari Rothschild over the past few years in Arizona, Mexico, or New Mexico. Jimmie Coleman, address above.

WANTED: short series of the following species of Parnassius: apollonius, hardwickii, charltonius, szechenzii. Also interested in Colias and Oeneis from the same regions of the world. Can offer in exchange Colias behrii, Parnassius phoebus behrii, P. clodius sol, P. c. baldur, and Boloria epithore or will buy at reasonable price. Marc Grinnell, 1137 Riebli Rd., Santa Rosa, CA 95404.

SALE OR EXCHANGE: pupae of Anisota senatoria, A. virginensis, E. imperialis, A. polyphemus, A. io. Send your pupa list with SASE for info. John M. Coffman, Rt. 1, Box 331, Timberville, VA 22853.

SALE OR EXCHANGE: wild-collected H. cecropia cocoons. Would like to correspond with collectors who have experience in container-rearing of Saturniidae on cut host-plants. James E. Romer, 7991 E. Hampden Circle, Denver, CO 80237 USA.

FOR SALE: cocoons of A. luna, A. polyphemus, H. cecropia & C. promethea; also papered A. luna. SASE for list Daniel Bants, 1254 7½ Mile Rd., Caledonia, WI 53108.

WANTED: Nat'l Wildlife Federation and Audubon Seals featuring insects from 1941 to present, in mint condition. Have limited number of these or have postage stamps of Lepidoptera of the world for exchange; or will buy. Vincent P. Lucas, 800 Brick Mill Run #301, Westlake, OH 44145.

WANTED: Butterflies of Trinidad & Tobago by Barcant. State condition and price. V. P. Lucas, address above. "PAPILIO" (New Series) #2 now available: "The Life History and Ecology of an Alpine Relict, Boloria improba acrocynema (Lepidoptera: Nymphalidae)", illustrating a new mathematical population census method. \$1.50 postpaid from James A. Scott, 60 Estes St., Lakewood, CO 80226 (#1 still available, \$1 postpaid).

WANTED: S. cynthia cocoons, will buy or exchange, and C. regalis pupae. FOR SALE: cocoons of H. cecropia, A. polyphemus, A. luna, A. io; pupae of E. imperialis. Catherine Hartman, 25903 CR 24W, Elkhart, IN 46517.

FOR SALE: Montana butterflies, including choice Oeneis, Erebia, Colias, Parnassius, Papilio & Boloria. Write for list. Steve Kohler, Box 39, Florence, MT 59833.

FOR TRADE (only for other saturniid cocoons, pupae and A-1 papered material) the following cocoons/pupae (C), ova available in spring (O), papered now available (P), and papered available in spring (Ps): A. polyphemus oculea (O), A. p. olivacea ♂ X A. p. polyphemus ♀ (Ps), A. polyphemus (P), C. promethea (P), S. walkeri (P), Saturnia pavonia meridionalis (C,Ps), S. mendocino (O,Ps), Hemileuca oliviae (P), H. lucina (P), A. io coloradensis (O,Ps), Agapema galbina anona (O,P), A. homogenea (C), H. cecropia (C,O,Ps), H. gloveri (C,O,Ps), H. columbia (C,Ps), H. euryalis (O), Hyalophora hybrid ova per specifications (O), and a few other assorted saturniids. Send offer with SASE to Steve Stone-PD, 755 Parfet St., P.O.Box 25287, Denver, CO 80225.

EXCHANGE ONLY: Catocala amatix ova for other Catocala species ova, especially walnut, willow, and prunus/malus feeders. Also papered A-1 amatix, both normal and "selecta" forms, for your papered Catocala species. John Jordison, 312 S. 152nd St., Omaha, NB 68154.

FOR SALE: Canadian & Canadian Arctic butterflies, including P. kahli, P. dodi, O. excubitor, B. distincta, E. mckinleyensis, E. sp. nova, and many choice Erebia, Colias, Boloria, Oeneis, etc. A-1 condition guaranteed. Jim Troubridge, RR3, Caledonia, Ontario, CANADA NOA 1A0 for list.

MANITOBA butterflies for sale: Oeneis daura alberta ♂♂ only, Colias interior ♂♂ only, Boloria chariclea grandis ♂♂ only, Lycaena dorcus ♂♂ only, Nymphalis j-album and other species. List on request. C. S. Quelch, 20 Highgate Rd., Toronto, Ontario, CANADA M8X 2B2.

FOR SALE: "Butterflies of Puerto Rico & the Virgin Islands", W.P. Comstock 1944, 200 p., 12 pl.; "Notes and Views of the Purple Emperor", Heslop, Hyde, & Stockley 1964, 248 p., 22 pl.; "Taxonomy of the Drepaninae Represented in China", A. Watson 1968, 151 p., 14 pl.; "Zur Morphologie der Schmetterlingseier" (egg sculpturing), E. Doring 1955, 154 p., 61 pl. Best offer. Oakley Shields, 4890 Old Highway, Mariposa, CA 95338.

WANTED: H.L. Lewis "Butterflies of the World" and Duckworth "Dictionary of Butterflies and Moths". Paul Pfenniger, P.O.Box 506, Newcastle, Indiana 47362.

FOR SALE: quantities of A. polyphemus cocoons, viability guaranteed. Tom W. Kral, Rt. 2, Box 648, Necedah, WI 54646.

FOR SALE: cocoons of A. luna, A. polyphemus, A. io, and a few Hyalophora. SASE for list. Carita Hamblin Bates, P.O.Box 3133, Eldorado Springs, CO 80025.

EXCHANGE: offer Nearctic Rhopalocera in exchange for species from elsewhere in the world; especially desire Asiatic and Oriental material at this time from the pieridae, Argynniinae, & Sphingidae. Russell Rahn, 3205 W. Rochelle Rd., Irving TX 75062, USA.

FOR SALE: surplus butterflies from Ontario, Manitoba, Alberta, B.C., Yukon, and Jamaica. List on request. Norman A. Tremblay, Shadow Lake, Rd. 9, Norland, Ontario, CANADA K0M 2L0.

EXCHANGE ONLY: 1♂ Papilio machaonides 1A condition, also a few ♂♂ in 2B condition; a few other rare and semi-rare neotropical Papilionidae. Please send want list and offerata. Want other rare neotropical Papilionidae, and a copy of Rothschild & Jordan, "A Revision of American Papilios". Rick Rosicki, 5830 S. McVicker Ave., Chicago, IL 60638.

EXCHANGE: I need North American butterflies, particularly from the west coast; can offer other N.A. material in exchange. Particularly interested in series of Lycaenidae in A1 shape, but all families are needed. Ken Thorne, Mill St., Delaware, Ontario, CANADA N0L 1E0.

WANTED: anyone wishing to exchange Lepidoptera please send your exchange list to receive mine. Tom Greager, RD #6, Box 56-B, Greensburg, PA 15601

FOR SALE: North American arctic and alpine species including Parnassius, Papilio, Colias, Oeneis, Erebia, and Boloria; also Jamaican material; all A1 condition. John Johnstone, Dickson Hill Rd., RR2, Markham, Ontario, CANADA L3P 3J3.

FOR SALE: Texas Lepidoptera. John Kemner, 9018 Liptonshire, Dallas, TX 75238.

FOR SALE OR EXCHANGE: living cocoons/pupae of A. luna, A. polyphemus, A. io, E. imperialis, & P. excaecatus. Send SASE for price list. John W. Peacock, 185 Benzler Lust Rd., Marion, OH 43302.

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MEMBERS' COMMERCIAL NOTICES.....

W. B. RICHFIELD, International Specimen Supply, P.O.Box 1066, Goleta, CA 93116, USA: selling all families of world Lepidoptera and other insects by mail-order; quality papered specimens with data. Send \$3 for introductory additive specimen price lists, 12-issue subscription.

CHUCK IAHNI, Ianni Butterfly Enterprises, P.O.Box 81171, Cleveland, OH 44181; (216) 888-2310: selling (Papilio Battus devilliersi).

GARDNER GOODRIDGE, 2832 Broxton Rd., Skaker Heights, OH 44120, USA: selling collapsible bait traps (as per drawing in Lep. NEWS May 1980 but with zipper); all weatherproof brass and nylon fittings.

ENTOMOLOGICAL INSTITUTE: Kamper Handelsgesellschaft, Weillgasse 3, A-1191 Wien, AUSTRIA (Prof. E. M. Kamper): dealers in insects and entomological equipment; also want collector contacts in Neo-tropics and A.E. Asia. Send 2 international postal coupons for catalog.

TRANSWORLD BUTTERFLY COMPANY (LS), Apartado 7911, San Jose, COSTA RICA, C. America (Simon Ellis) — British Office. Over 250 European butterflies; 45 Morpho species; other S. American & worldwide material. Butterfly farm — pupae available. Regular catalogues/monthly newsletters \$6, or \$1 catalogue only; check or cash.

MICHAEL K. P. YEH, P.O.Box 32, Ipoh Garden P.O., Ipoh, MALAYSIA: selling Malaysian, Indonesian, and Thai butterflies, beetles, and insects. Competitive price-list on request on dealer's letterhead. Wholesale only. Reply assured.

S. K. ONG, Box 2, Simpeitou, Taiwan 112, R.O.C: offering a variety of pupae of colorful tropical butterflies when in season. Also, color prints of butterfly photos taken alive in their wild habitats. Inquiry cordially invited.



AVE ATQUE VALE!.....

With this issue I end my three-year tenure as Editor of the NEWS. It has been one of the most pleasant challenges I have met, particularly because of the large number of members it has allowed me to become acquainted with, both in person and by mail. Your encouragement and comments, and particularly your contributions of articles, notes, and pictures, have made it possible to put together a publication which, I hope, has had something of interest for everyone. May you continue such support for my successor, June Preston.

In order to have your future notices, ads, and literary contributions receive the most expeditious attention, please address them from now on to:

Mrs. June D. Preston
832 Sunset Drive
Lawrence, Kansas 66044, USA

Many thanks for all your help and cooperation, with particular thanks to my wife, Jo Brewer, for doing the "Ripples" column, to Les Sielski for creating the section headings, and to the Zone Coordinators, for getting their reports in on time.

And now, to start removing some of the moths from that freezer, so Jo can have a little space for groceries!

Sincerely,
Dave Winter

from: The Lepidopterists' Society

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DEADLINES: Material submitted for inclusion in a specific issue of the NEWS should reach the NEWS EDITOR no later than the 15th of the preceding even-numbered month. Reports for the SEASON SUMMARY must reach the ZONE COORDINATORS (listed on front cover of this issue) no later than 31 January.

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INFORMATION ABOUT THE SOCIETY.....

Membership in the Lepidopterists' Society is open to all persons interested in any aspect of Lepidopterology. Prospective members should send the TREASURER the full dues for the current year (\$18.00 US), together with mailing address and a note about areas of interest in Lepidoptera; student membership (must be certified) \$12; sustaining membership \$25. Remittances must be in US dollars, payable to the Lepidopterists' Society. All members will receive the JOURNAL (published quarterly) and the NEWS (published bimonthly). A biennial membership list will comprise the last issue of the NEWS in even-numbered years.

Information on membership may be obtained from the TREASURER, Ron Leuschner, 1900 John St., Manhattan Beach, CA 90266, USA. Changes of address must be sent to the TREASURER, and only when the changes are permanent or long-term.

Other information about the Society may be obtained from the SECRETARY, Julian P. Donahue, Natural History Museum of Los Angeles County, 900 Exposition Blvd., Los Angeles, CA 90007, USA. Please notify him of any additions or changes in areas of interest for publication in the membership list.

Manuscripts submitted for publication in the JOURNAL are to be sent to the JOURNAL EDITOR, Dr. Thomas D. Eichlin, JOURNAL of the Lepidopterists' Society, Insect Taxonomy Laboratory, 1220 N Street, Sacramento, CA 95814, USA. See the inside back cover of a recent issue of the JOURNAL for editorial policies.

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AVAILABLE PUBLICATIONS OF THE SOCIETY.....

CATALOGUE/CHECKLIST OF THE BUTTERFLIES OF AMERICA NORTH OF MEXICO (Memoir No. 2), Lee D. Miller & F. Martin Brown: includes references to original descriptions and location of type specimens. Members and subscribers, \$10 cloth, \$5 paper; non-members, \$17 cloth, \$8.50 paper, postpaid. Order from Ron Leuschner, Treasurer, 1900 John Street, Manhattan Beach, CA 90266, USA.

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

BACK ISSUES of the JOURNAL and of the NEWS of the Lepidopterists' Society: order from Ron Leuschner, Treasurer, address above. A list of the available issues and their cost, postpaid, is in the NEWS for Nov/Dec 1981, page 74.