



# NEWS

of the LEPIDOPTERISTS' SOCIETY

No. 1 Jan/Feb 1984

June Preston, Editor  
832 Sunset Drive  
Lawrence, KS 66044  
USA

---

---

ASSOCIATE EDITORS

ART: Les Sielski

RIPPLES: Jo Brewer

ZONE COORDINATORS

1 Robert Langston  
2 Jon Shepard  
3 Ray Stanford  
4 Hugh Freeman

5 Mo Nielsen  
6 Dave Baggett  
7 Dave Winter

8 Kenelm Philip  
9 Eduardo Welling M.  
10 Boyce Drummond  
11 Quimby Hess

---

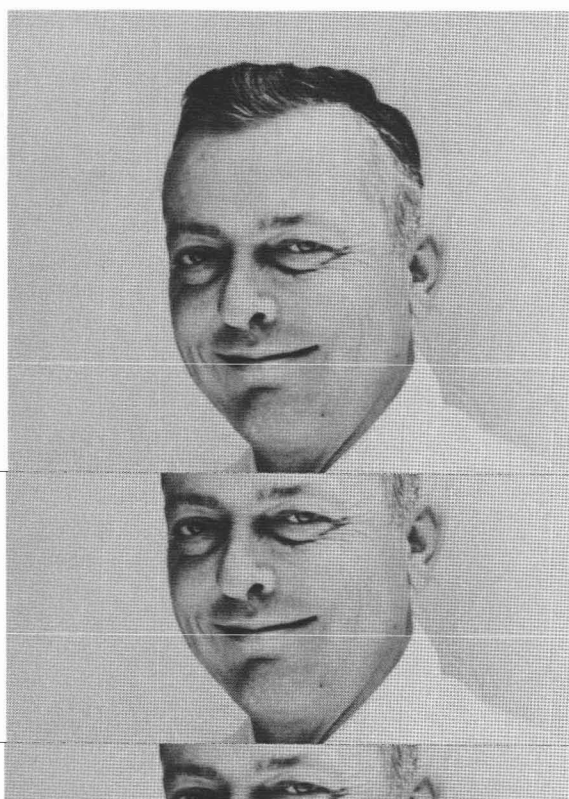
---

## Presidential Profile

Lee D. Miller, Curator of the Allyn Museum of Entomology, Florida State Museum, Sarasota, is currently serving as President of the Lepidopterists' Society. He was born in Des Moines, Iowa, and at an early age was imbued with a respect for natural history through his father, G. Denmark Miller, with whom he collected Lepidoptera. At the University of Iowa, he received a B.A. in Zoology in 1960, then went to work for the U.S.D.A in Meadville, Pennsylvania. During this time Lee made numerous trips to the Carnegie Museum of Natural History in Pittsburgh, Pennsylvania, for the purpose of identifying material. It was here that he met his eventual major professor, Richard M. Fox, and another life long friend, Harry K. Clench. Lee completed his Ph.D. in Biology at the University of Pittsburgh in 1965, and then accepted a teaching position in the Dept. of Biology, Catholic University of America, Washington, D.C., where he taught various courses in systematics, ecology and entomology. In 1968, Lee and his wife, Jacqueline, also an entomologist, moved to Chicago, Illinois, to become the curatorial staff for Arthur C. Allyn, in the hope of building an excellent scientific collection of Lepidoptera. The collection was moved in 1969 to Sarasota, Florida, and transferred to its present location in 1973, increasing in growth to more than 565,000 prepared Rhopaloceran specimens. In 1981, the holdings of the Allyn Museum were transferred to the University of Florida Foundation, Inc. and the Florida State Museum, but the collection still resides at the Sarasota location.

Dr. Miller has served the Society in various capacities: Zone Coordinator (1964-1968), Secretary (1972-1976), co-editor, Harry K. Clench Memorial Issue, Journal, and is presently an Associate Editor for the Memoirs and Supplements. In addition to serving as ~~Editor of the Bulletin of the Allyn Museum as~~ Florida State Museum, but the collection still resides at the Sarasota location.

Dr. Miller has served the Society in various capacities: Zone Coordinator (1964-1968), Secretary (1972-1976), co-editor, Harry K. Clench Memorial Issue, Journal, and is presently an Associate Editor for the Memoirs and Supplements. In addition to serving as ~~Editor of the Bulletin of the Allyn Museum as~~ Florida State Museum, but the collection still resides at the Sarasota location.



Smithsonian, American Museum of Natural History, Carnegie Museum of Natural History and the British Museum (Natural History) in his systematics work, giving him a universal viewpoint in this field.

Lee joined the Lepidopterists' Society in 1955 and maintains memberships in the following societies: the American Entomological Society, Society for the Study of Evolution, Society for the Study of Tropical Biology, Florida Entomological Society, Society of Kentucky Lepidopterists', Southern Lepidopterists' Society, Lepidoptera Research Foundation, Sociedad Mexicana de Lepidopterologia, Fellow, Royal Entomological Society, London, and a Fellow, Linnean Society, London. Lee is also a Research Associate at the Florida Collection of Arthropods, the Dept. of Zoology of the Field Museum of Natural History, and of the Section of Insects, Carnegie Museum of Natural History.

When queried recently as to how he felt about being President of the Lepidopterists' Society, Lee replied, "I view the Presidency as an opportunity to facilitate communication between professional and amateur lepidopterists. All lepidopterists have something valuable to teach one another, and progress will be made only by listening to a number of viewpoints." We can all benefit from Lee's wisdom in this respect.



#### DEATH IN THE WOODLOT - CATOCALA WINGS

Last fall, Jim Bess and I were scouting out a new oak woodlot in Monroe County, Michigan, looking for Catocala resting on tree trunks. It has been my experience that this method of collecting underwings as they rest on tree trunks has been extremely productive and challenging! On September 12, 1982, we came to a huge black oak that measured approximately 50 inches in girth; obviously, it was a likely target to search for resting underwings. Unfortunately, some unknown predator had been there before us!

Much to our surprise and amazement, the base of this oak was littered with the wings of Catocala! First, we noticed a few wings on the dry oak leaves at the base of the oak, and after a careful and systematic search, we discovered a total of 51 fore and hind wings of Catocala. All of the wings were located within a circle extending out 3 feet from the base of the oak. We carefully scooped up the wings in a glassine envelope for later review at home. A quick search for other likely trees in this woodlot proved uneventful. One item that caught our attention on this particular oak was the presence of an active mouse nest, probably a deer mouse (Peromyscus sp.), neatly tucked under a large piece of loose bark about 3 feet above the ground. We believe this may have been the culprit--at least the circumstantial evidence would point to this.

All of the above wings were subsequently studied and sorted to individuals and species; the findings are as follows:

Species	LFW	RFW	LHW	RHW
<u>C. cara</u>	3	3	3	2
<u>C. ilia</u> *	6	6	8	9
<u>C. meskei</u>	1	1	-	-
<u>C. relict</u>	2	2	2	2
<u>C. ultronia</u>	-	1	-	-
TOTALS	12	13	13	13

(\*not all ilia FW's match)

Based on the above data, at least 16 individual Catocala, representing five species, met their death in the vicinity of this black oak by an unknown predator. We hope this experience will stimulate other field collectors to take a moment to look for similar occurrences. If anyone has any thoughts or similar experience that may shed light on the predator, please advise.

M. C. Nielsen  
Lansing, Michigan

#### LEP. COLLECTING WITH GLORIA?

For some unknown reason I seem to have been jinxed where my State Vehicle is concerned. To date, I have yet to have a trip where something did not go wrong with my "wonderful" vehicle. My most recent event was the week I met with Chuck Hageman and Ken Hansen in Susanville, California. We took my four-wheel drive Blazer, and Chuck's truck and headed to Robbers Roost on our way to the Black Rock Desert for what we thought would be three marvelous days of collecting. We no sooner hit Robbers Roost than my vehicle came to a sudden stop and wouldn't do anything. Within seconds all three of us had our heads under the "wonderful" vehicle and low and behold it was pouring out transmission fluid. I was a bit upset since the Museum had spent \$700.00 the day before on the transmission. Luckily, Chuck and Ken are very tolerant and helped me turn the Blazer around towards the direction of the highway. We had passed a highway "Caterpillar" and they were in hopes that it would still be on this great road we were traveling. They were able to locate the tractor and the guy was willing to tow me back to the highway. Unfortunately at the time we were trying to hook up the vehicle we had one horrendous cloud burst. All three of us looked like drowned, but proud, lepidopterists. My make-up had run down my face, Ken's hair was covering his high forehead clear down to his nose and Chuck's pants would barely hang on. We've all had our dreams of finding the world's most unusual Caterpillar, but a "highway Caterpillar!" Wow! I was towed for about 20 miles in mud that seemed more like, well, I'll leave that to your imagination, to the highway. Two of us headed back to town to get a tow truck and arranged for a transmission specialist to figure out what damage had been done while the other poor fellow unloaded all my gear for collecting everything that thrives, but mosquitos, which seemed to love the guys after the second day. Not me, I smelled like a can of bug spray. Shows ya who is smarter! Ha Ha!

Skipping the cloud bursts, Chuck's starvation over worrying about getting back over the wonderful, marvelous, mucky roads we had just passed and Ken's unreal weather predictions about "Well, this is just a summer thunder shower, I've seen hundreds of them, don't worry about it, it will be clear tomorrow." We did manage to get my tent up in the dark hours of the night. With only a flash light it looked like a "lean-to" when it was completed, but those guys kept up their spirits. Of course all three of us were so tired that everything said was either ridiculous or totally dumb. Laughter was definitely our best medicine.

The next morning I managed to catch C. Hageman getting out of his sleeping bag inside his truck and he still had his boots on. I was curious and said "Did you sleep with your boots on? I thought they only buried people in the Old West with them on." He laughed and replied, "Well, you never know, I might have to get out of here in a hurry!" It's bad enough to sleep with levis on, but large, klunky boots!!

The last day was great! We had had good collecting up to then and only six and half hours of travel ahead of us. Unfortunately Ken was anxious to get all the live females he could (butterflies that is) and Chuck and I were going over every Eriogonum spot we saw for Euphilotes for J. Emmel. We seemed to see more rattlesnakes than Euphilotes but all in all we did a "Vunderful" job finding those goofy critters for research. The worst thing about being a lepidopterist is that every spot for 400 miles needs to be checked and there are never enough hours or days to do it! We all aren't botanists, but one of us may know one plant that the other doesn't. An example: Ken Hansen said "Oh, look at all the Castellija," "No," I said "that's mallow." "Oh," said Ken "that's right! We're right right next to a marsh!" You can see what the three days were like. On the way home as I mentioned earlier we had only so many hours in which we had to drive many miles. I'm sure all Leps. have experienced that! Anyway we had

to make a "q-u-i-c-k" gas stop! Chuch checked the oil, Ken gassed up! - gasoline wise - and I washed windows. It only took about three minutes! We all quickly, got into our correct spots in the truck and headed south. Leave it to Hansen - his comment was "We looked like a bunch of bank robbers trying to get away." All three of us laughed and roared down the highway at 90 miles an hour. No, not really, but we did managed to get Ken's car out of the Department of the Interior parking lot and pick up my vehicle. Within 1 hour 40 minutes, 131 miles were covered. The big butterfly in the sky was watching over us and we each made it home. It was fun, it was unsure, but we made it! Thank goodness for Lep. Soc. people like these two guys! They were superb, not only in being good communicators, but also good lepidoptera teachers and both of them kept their spirits high not only for tomorrow, but for future years of collecting together again!

Gloria Harjes  
Carson City, Nevada

#### CLARIFYING CLADISTICS

I'd like to add my two bits on the subject of cladistics to the dialog between Oakley Shields and Art Shapiro, and our readers. Most of us aren't taxonomists but we recognize that classifications are based on similarities of characters shared among organisms. In phenetic classification the degree of relationship between any two comparable groups of organisms is equivalent to their overall similarity, the number of characters shared in proportion to the total number of characters studied; the greater the ratio, the closer the relationship and the lower the rank at which they are joined (constitute a higher group of organisms). All characters are considered as being of equal importance, and it is hoped that if enough characters are investigated then a single robust pattern of hierarchical relationship will emerge among all the organisms studied.

By contrast both evolutionary systematics and cladistics employ methods of weighting characters by choosing only those that imply phylogenetic relationship. We have an intuitive feeling for the taxonomic importance of certain kinds of characters, those which show unique evolutionary modification. If such a character is shared by a set of organisms we can infer that each inherited it ultimately from a single common ancestor, and that these organisms form a natural group. This is the basis for defining groups of organisms in both types of classification, although there is a methodical pattern and specialized language to which cladists adhere. The two types of classification differ in how they treat characters that are uniquely derived but not shared, that is, those characters which show evolutionary modification within a single lineage of organisms. The degree and number of such characters give their owners a greater overall dissimilarity from their common ancestor, an evolutionary divergence awarded a higher rank in classification only by evolutionary systematists. Cladists view this rank elevation as arbitrary (just as the methods of measuring divergence), and require that all the products of a speciation event share a common rank, no matter how modified they become after that event. There are problems with this view as well (What does one do with species that survive speciation events with regard to rank?). Characters which do not show evolutionary modification are recognized as primitive characters shared among organisms at some broader level of universality. Evolutionary modifications which are shared but are demonstrably not uniquely derived are defined as convergences until resolved into distinguishable, unique (different) character modifications.

Most taxonomists use evolutionary systematics which means virtually everyone that classifies employs cladistic methodology by using shared, uniquely derived characters to define groups of organisms. The relative ranks these groups are given depends on one's school of thought. Stated another way, virtually all taxonomists seek to reconstruct the single historical phylogenetic

tree and they are doing it in the same way (with varying degrees of accuracy and explicitness); cladists name the branches more conservatively than evolutionary systematists, encoding less evolutionary data into each name. And in this light, vicariance biogeography would be the study of distributions of organisms focusing on discovering those organisms that have the same phylogenetic branching pattern as the habitats they occupy. The concept is as old as the view that ectoparasites speciate along the lines of their hosts and has been generalized to all cases of island biogeography.

Tim Friedlander  
Department of Entomology  
Texas A&M University  
College Station, TX 77843

#### AN "ARRANGED" MATING OF PARNASSIUS CLODIUS BALDUR

On August 4, 1983 at about 10:45 am PDT, a flying virgin female clodius was captured (elevation 8,100) feet) in Tuolumne County, California. Several minutes later a male clodius was caught (species was common in the area) and both were released in an inverted net. Immediately after body contact they coupled at 10:55 am which was about one minute after being placed together in the net. The weather at the start of mating was warm, clear, and calm, and 68°F (measured). This in copulo pair was then taken out of the net and repeatedly disturbed, establishing that the female was the dominant partner (the male was active but not in control). They then were put in an open plastic jar where they remained until copulation terminated at 11:59 am (total in copulo duration of one hour and four minutes). Later in the afternoon (about 5:30 pm) the female was placed in a number four size, brown grocery bag that also contained Dicentra uniflora leaves and a twig, and was stood where she would receive direct sunlight through our open cabin door or screen.

The following day (5th) from about 12:30 to 6:00 pm, she was mostly in direct sun and laid 15 eggs, the last two of which were oviposited between 5:45 and 6:00 pm. All 15 ova were deposited singly on a piece of aluminum wire screening which served as a cover for the grocery bag; evidently no other eggs were laid anywhere else in the bag. Subsequently, the ova appeared to darken and are now apparently overwintering.

Keith Wolfe  
San Francisco, CA

#### SECOND SYMPOSIUM ON NEOTROPICAL LEPIDOPTERA

Held in conjunction with the 9th Latin American Congress of Zoology at Arequipa, Peru, on October 10, 1983, the symposium featured papers by 11 lepidopterists from 8 different countries. The symposium was convened by Dr. Gerardo Lamas of Peru who read the paper on "Ecology and Biogeography of the butterflies of the Himalayas" by Dr. M. S. Mani of India who was unable to attend. A paper on the Primitive Lepidoptera of the Andes was presented by Dr. E. Schmidt-Nielsen of Australia. Dr. C. V. Covell, Jr. of the USA presented a paper on "status of knowledge of the neotropical Sterrhinae (Geometridae)." Dr. Art Shapiro of the Univ. of California, Davis, spoke on the genetics of polyphenism and its role in interpreting the phylogenetics of the sterodice group in Tatochila (Pieridae).

Papers by Dr. M. Adams of England, Dr. H. Descimon of France, Dr. C. Callaghan and Dr. O. H. H. Mielke of Brazil, Sr. D. Hudson of Peru and M. Casagrande of Brazil, plus a team from Argentina with a paper on the bagworm, Oiketicus platensis rounded out the program of subjects on Andean Lepidoptera. In the days following there were several field trips for sightseeing and collecting purposes.

## FANTASTIC TAMBOPATA!

In conjunction with, but not officially a part of, the symposium was a field trip to The Tambopata Reserve (see NEWS 4, 1983, pg 53) led by Dr. Lamas. Participating were Dave Ahrenholz, Dan Bogar, Charlie Covell, Stan Nicolay and Frank Raab. They spent a couple of weeks collecting in the Reserve, each day showing their catch to Dr. Lamas who picked out the species new to his published list and by the end of the trip the list had swelled to over 1,000 species. It was "my most fantastic trip" to quote Charlie Covell. His story follows:

"Sunday morning we made the 4 hour boat trip up the Tambopata River to the Explorers' Inn at the edge of the Tambopata Reserve. When we edged to the river bank at Tambopata, we were greeted with a big mud puddle club of about 200 butterflies of different groups: Pierids, Papilio and Parides, Adelpha ssp., large Baeotis ssp., D. iulia, Heliconius dido, and others. After settling into our quarters (comfortable, though spartan; no hot water and electricity only until 9 p.m.), I got into a soccer game with the staff (mostly Peruvian, but also Didier, the French manager of the place, and Nigel Stork, British colleague of Dr. Terry Irwin of the Smithsonian, who is doing a canopy ecology study there). Meals were in the tentlike lodge building, and were quite good. A perfect blend of primitive and comfortable features. Macaws screeched in the trees, flocks of parrots squawked overhead, and howler monkeys made strange noises from the surrounding jungle. Osa, the orphan baby giant anteater, was sort of a pest, as she liked to climb your leg if you stood still on your porch too long. Trails through the jungle and down along the river made collecting quite accessible."

"In the following days we got off early and collected as long as the sun hit the jungle trails and clearings. I got about 20 new species for the list during my week there. (I had to leave early but the others stayed for a second week of collecting.) My catch included some gorgeous hairstreaks and metalmarks and the big prize: an Agrias sardanapalus! It had circled my sweaty body in the jungle, and I missed on my first sweep of the net. Later it returned, and this time I got it. Stan and Dave caught some too, plus many other species!"

There had been additional tropical collecting, on the way to Tambopata, in the jungle around Puerto Maldonado and along the Urubamba River near the train station below Machu Pichu. The rains had recently begun and the days were hot and steamy, but made for good collecting.

How we winter bound Northerners might wish we had been there too!



## NOTES ON P. GLAUCUS DIMORPHISM

A paper forwarded to us by Sir Cyril Clarke (Dept. of Genetics, Univ. of Liverpool, Liverpool L69 3BX, England), entitled "Abnormalities of Wing Pattern of the Eastern Tiger Swallowtail, Papilio glaucus" (Systematic Entomology 1983, 8: 25-28) is of great interest both for its content and for its 17 color illustrations. A summary of Clarke's conclusions is enlightening, with regard to the commentaries on glaucus variants carried in the NEWS over the past several years.

A black female yields black females regardless of whether the mating male originated from a black or a yellow female. This implies a color locus on the Y chromosome. When a yellow female does arise from a black, he postulates loss of the black gene from the Y chromosome. When a black female is reported from a yellow mother, he suggests a rearing error, the introduction of a wild ovum or larva on harvested foodplant.

The aberrant with terminal lunules broadened, reaching the margin and also extending basad (similar

forms have been seen in philenor and troilus) is an autosomal mutant, inherited in both male and female in Mendelian ratios.

The semi-dark female with a scattering of yellow scales giving a brownish cast is postulated to be an autosomally controlled developmental abnormality in which the laying down of black pigment (believed to occur after the yellow pattern had been formed) is partially interfered with.

The half black half yellow female is believed to be XY/XO (2 X chromosomes being required for maleness), with the black pigment only on the Y chromosome.

Half black female half (yellow) male is felt to indicate double fertilization.

Black female with single (yellow) male hindwing could be XX/XY from double fertilization, or XY/XO due to non-disjunction.

The form with the black "tiger" pattern spread and distorted against the yellow ground (which has been seen even in the ssp. canadensis, where the black gene does not occur) still is inadequately explained, according to Clarke.

Dave Winter  
Dedham, MA 02026

## PRECAUTIONS WITH PARADICHLOROBENZENE

In view of the possible toxic effects of prolonged exposure to paradichlorobenzene (PDB) or naphthalene, a principal precaution that comes to mind is to use concentrations no higher than necessary for discouraging pests. While more extensive research should be carried out, nevertheless I give below my experience and some simple experiments carried out recently.

For 20 years I have displayed butterflies and moths in Riker mounts in a fairly tight china closet opened from time to time. In order that PDB need not be renewed frequently, spheres or fragments of spheres have been wrapped tightly with aluminum foil. One or two of these have been placed on each shelf and renewed about once a year. The specimens have shown no damage.

In order to prove that wrapping with metal foil actually does retard evaporation of solid PDB, I have determined losses of weight of 4 gm samples warmed for 18 hours at 39°C in an oven with the door partially open:

Powdered PDB	7.1% loss
Sphere of PDB	5.1%
Al. foil wrapped sphere	0.26%

That breaking the solid into a powder had only moderate accelerating effect may result from the PDB fusing together again to give a compact mass in the weighing dish.

It is possible that PDB may be absorbed appreciably by the chitin of specimens. I have removed specimens in Riker mounts for prolonged periods for display in our living room without damage.

In order to keep PDB vapors confined we have available today nearly clear, colorless films such as polyethylenes and polypropylenes and rigid plastics such as acrylics and polycarbonates. It is possible that some of these materials may be attacked by high concentrations of PDB, which is another reason for wrapping with metal foil.

C. E. Schildkecht  
Prof. Emeritus, Chemistry  
Gettysburg College

## WET? OR DRY?

I read with somewhat amazed interest (Season Summary, UT: 1983 2:19) that climatic conditions in Utah were found to be "drier than usual in August," last year. If true, this occurred during the same year (1982) in which an all time new record for precipitation (averaged throughout the state) was established for Utah! The previous annual precipitation record for the

state was 24.60" set in 1875-1876. Last year's record (Oct 1981 - Sep 1982) for Utah precipitation exceeded that older record by .55" for an all time total of 25.15 inches! Since Utah is the second driest state in the Union of fifty (only Nevada is drier!) it's easy to see why someone might perceive conditions to be drier than usual, even if they may not have been. I was driven from the field many times in Utah during August of that year due to clouds and rain.

Clyde F. Gillette  
Salt Lake City, Utah

#### RECORD NUMBER OF LEPIDOPTERA SPECIES REARED IN ONE YEAR

During 1982, three graduate students at Berkeley and I reared approximately 240 species of Lepidoptera. Although a precise count is impossible owing to the preliminary state of taxonomic knowledge and prevalence of undescribed species in Gelechioidea and the leafmining families, the 1982 results appear to surpass the productivity by our group in any previous year. In 1968, P. A. Opler, J. A. Scott, and I processed about 1,000 collections and reared ca. 220 species of Microlepidoptera (sensu McDunnough) and 15 macro species, for an approximate total of 235.

The Agricultural Experiment Station project, "Taxonomic and biological investigations on California Microlepidoptera," begun in 1962, has explored the nature and extent of the small moth fauna of California and adjacent states. This project has become the most extensive source of biological data for Microlepidoptera in the New World. A broad taxonomic spectrum has been encompassed, with virtually all families and major subfamilies of the region included. Our emphasis has shifted through differing ecological horizons: external foliage feeders (especially Tortricidae and Ethmiidae); yucca and agave associates (1961-1974); subcortical and wood-rot fungus feeders (1964-1968); root-borers and gall-makers of woody shrubs (1966-1970); leafminers (1967-1970, 1978-1982); sand dune associates (1972-1978); and conifer foliage feeders (1978-1982). During the past 22 years we processed more than 6,600 biological collections and reared more than 780 species (including 100+ for which taxonomic status is uncertain).

The 1982 total was surprising because effort was not directed to rearing all kinds of Lepidoptera, except during an 8-day California Insect Survey trip to Plumas County in May. Rather, the diversity resulted from exploring biological information on taxa and habitats representing different individual interests within our group. My fieldwork was carried out on 78 days, only 30 of them in collaboration with one or more of the students. J. A. DeBenedictis and I concluded a 5-year study of species relationships among Western spruce budworms (*Choristoneura*, Tortricidae), which involved larval collections in southern California and Oregon in 1982. Secondly, I investigated oviposition behavior of tortricine moths, and reared larvae from eggs, in California and Guerrero, Mexico, with 52 collections successful for 20 species. In addition, we conducted a survey of Microlepidoptera-native plant associations at the Antioch National Wildlife Refuge, Contra Costa Co. (15 visits), and 23 species were reared, among about 80 recorded there.

Separately, DeBenedictis surveyed Lepidoptera hostplants at San Bruno Mountain, San Mateo Co. (78 collections, 29 species reared). Much of the total originated from an extensive survey of leafminers throughout the year by D. L. Wagner, who is interested in primitive moths and did the leafminer work in addition to his primary research with behavior and biology of Hepialidae. J. B. Whitfield, who is studying parasitoids, especially microgastrine Braconidae, contributed to the leafmining moth work during the latter part of the season. El Dorado and Sutter counties, CA, and Oregon were most intensively sampled for leafminers.

Altogether, we processed 646 collections, nearly 50% of them leafminers. The moths reared represent ca. 230

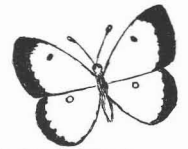
species of Microlepidoptera in 24 families (41% in the true leafmining families), and 11 species of macros. Gracillariidae (56 species), Tortricidae (42), and Gelechioidea (36) were best represented. Noteworthy collections that we expect to report elsewhere were produced from each of the diverse approaches. The total of ca. 240 species is presumed to be the highest one-year product recorded at one station. Possibly industrious workers in the vast world of Noctuoidea or tropical diversity can refute such a claim.

J. A. Powell  
University of California, Berkeley

#### MISSION BLUE

Blue butterflies  
bright bits of April's sky  
amongst her flowers.

--Harriet Reinhard--



#### ALFALFA BUTTERFLY

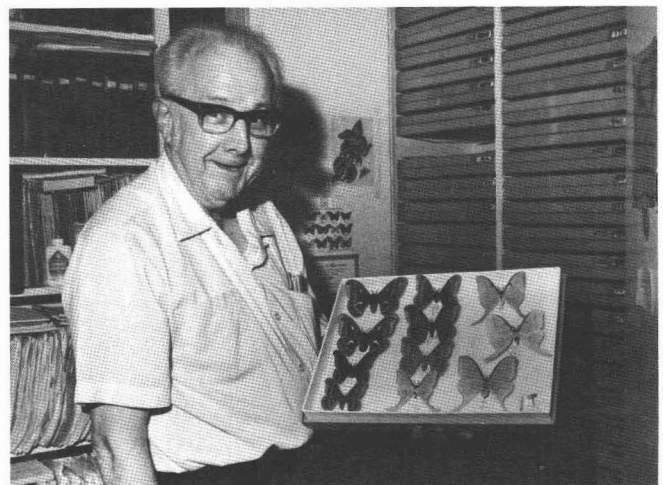
Pale yellow, yellow,  
sulfur yellows swarm above  
green alfalfa fields.

--Harriet Reinhard--

#### JOHN ABBOT AWARD TO BRYANT MATHER IN 1983

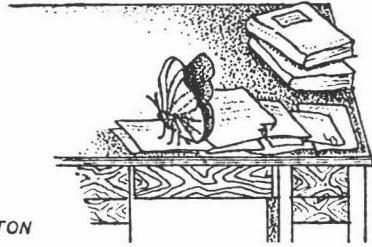
Bryant Mather, an international figure in concrete research, and chief of the Waterways Experiment Station Structures Laboratory, U.S. Corps of Engineers, received the John Abbot Award for 1983 from the Southern Lepidopterists Society for his work with butterflies and moths. Mather, a resident of Clinton, Mississippi, has a degree in geology but his butterfly activities occupy most of his spare time and he always takes a net along with him on his work related field trips and conferences. His collection includes specimens from Japan, Germany, France, Turkey and Mexico, plus one prize captured on a lilac bush inside the Kremlin in Moscow, USSR. He and his wife, Katharine, published "Butterflies of Mississippi" in 1958 and are continually updating this comprehensive work. The Mathers have branched out into moth collecting. Mather's 40 years in entomology have resulted in his having 4 moths, 2 butterflies and a fishfly named after him, and he has published several additional papers on butterflies and moths. He finds the Mississippi climate allows year round collecting. The accompanying photo shows Mather with a drawer of moths from his collection, which takes up much of 2 rooms in his house. He says "I don't set out to hunt the largest or the showiest or the most unusual butterflies and moths, but I just go out to see what interesting creatures I can find. It is amazing what one can see when one takes the time to look."

Karen Ledlow  
Vicksburg, Miss.



U. S. Corps of Engineers Photo

# From The Editor's Desk



JUNE PRESTON

If you wish to voice your opinions on issues, this is a good place to do so, but let us try to keep personal attacks out of the NEWS as they serve no real purpose. Lack of space still prevents me from printing all the letters I have received to date, but the following I have had for several months.

Dear June,

The recent Miller & Brown (1981) checklist has come under sharp attack by Ehrlich & Murphy, 1981, *J. Res. Lepid.* 20:1-11; Gillette, 1983, *Utahensis* 3(1):1-8; and White, 1983, *News Lepid. Soc.* no. 3, 45, although Miller, 1983, *News Lepid. Soc.* 3:45-46; and Ferris, 1983, *News Lepid. Soc.* 5:65 give it favorable billing. As the long list of acknowledgments in the Ehrlich & Murphy paper indicates, many favor the criticism side of the issue.

Noble enough as Miller & Brown's intentions were to unify Holarctic taxonomy, in keeping with ICZN rules, they have stirred up a hornet's nest because of their adoption of excessive generic splitting. Nobody has a corner on the truth, especially in taxonomy, where differences of opinion can prevent stability. Neither numerical taxonomy nor cladistics has progressed far enough to give this needed stability, if indeed they can. I like to think of taxonomists as splitters, lumpers, and middle-of-the-roaders, with all shades in between. Using these guidelines, Miller & Brown are practically ultra-splitters, whereas their critics are mostly lumpers or middle-of-the-roaders.

It seems their underlying assumption is that the Europeans have got it right (mostly) and that we should follow their lead. But to moderates, the Higgins & Riley style heavily favors splitters, to the point of endangering any semblance of underlying evolutionary pattern in the taxonomy. This is what happened to birds, where practically every species became a different genus. Excessive lumping might be just as bad, too, I suppose, for which Miller & Brown cannot be faulted. Their treatment of skippers appears to be fairly orthodox, but splitting within the genera *Papilio*, *Pieris*, *Anthocharis*, *Eurema*, *Lycaena*, *Plebejus*, *Boloria*, *Chlosyne*, *Euphydryas*, *Nymphalis*, *Euptychia*, etc. is disconcerting to many of us. Hopefully future revisions will keep the broad evolutionary relationships better in mind and in balance.

Sincerely,

Dr. Oakley Shields  
Mariposa, Calif.

Dear June,

There have been so many letters about the Miller/Brown catalogue that I thought you would like a few notes about some of the names in the catalogue: 1) The treatment of *Celastrina nigra* is wrong. Both *nig* and *intermedia* were named aberrations, not forms and *nigra* was named as a form, not an aberration. *C. nigra* is the correct species name and *ebenina* is a synonym; *nitra* and *ebenina* share the same type specimen but *nigra* has 88 years priority (named in 1884). It was named as a form and used as such by Edwards and Holland, etc. Rule 45(e)(i) of the International Code states "Before 1961, the use of either the terms 'variety' or 'form' is not to be interpreted as an express statement of either subspecific or intraspecific rank,"

and Article 17(y) states "A name is or remains available even though before 1961 it was proposed as a 'variety' or 'form'." The correct species name is therefore *nigra* as the name was available and has priority. Miller and Brown clearly recognized the availability of varieties and forms before 1961 (see their note 532) and would no doubt have recognized *nigra* as correct had they not mistakenly labeled it an aberration. 2) *Phyciodes campestris* is the proper name to use rather than *P. pratensis* because *campestris* has page priority over *pratensis* and the "revision" cited in note 512 was not a revision at all. If a name is to be dredged up to replace *campestris*, then *pulchella* (Boisduval) 1852 will do nicely, type locality San Francisco or the Tuolumne gold field. Or the reader could replace *P. mylitta* by *pulchella* if he wishes, because *pulchella* is older than either of them. 3) *Euphyes vestris* is the correct name, not *E. ruricola*. The Dos Passos checklist treated *ruricola* as a *Hesperia*; obviously no one knows what *ruricola* refers to in reality and it's way past time to inter *ruricola* in the taxonomic graveyard as a *nomen dubium*. There are other name changes of course, but let's not make too many waves or we'll swamp the "Ripples" column.

Of interest to many lepidopterists is the proper name for larval eyes. It is *ommatidia* or just *eyes*; the term *ocelli* and *stigmata* are incorrect. Larval eyes have the same structure as single ommatidia of an adult compound eye and are totally different from true ocelli which are the two tiny peepers between the compound eyes of adult moths (see H. Paullus' chapter on eyes in A. Gupta's 1981 *Anthropod Phylogeny* text). Larval eyes are evolved from the true compound eye of the larvae of scorpion flies (mecoptera), and larvae of the most primitive lepidoptera (microptergidae) still have compound eyes.

Jim Scott

Lakewood, Colorado

Dear June:

I have followed with some interest the controversy concerning Miller and Brown's checklist, and believe that they have adequate justification for most, if not all, the recent changes in generic names (chiefly splitting, although some lumping in the case of *Vanessa*). As all realize, a number of factors including structure of venation, wing shape, wing pattern, structure of genitalia, chromosomal patterns, larval hosts, and habitat must all be brought to bear when considering generic name changes, in addition to nomenclatural priorities. Dr. Lee Miller is a recognized authority on nearly all aspects of Lepidoptera, and especially structure and venation.

I must admit that several years ago I was skeptical of so much splitting, but consideration has brought me around to the fact that these changes are for the good, and carefully show distinctions. A case in point--*Aglais milberti* should be compared with *Aglais urticae* (with hind wings very close to *A. milberti*). Wing shape, venation, larval hosts, adult hosts, and habitat are almost identical. I am no authority on genitalia or chromosomal studies, but I am certain that these were considered by Dr. Miller and Dr. Brown. Certainly, there is justification for the separation of these from *Nymphalis*. Another case--separation of *Pterourus* from *Papilio*. Many older authorities recognized the "machaon-asterius", "troilus", "philenor" groups, etc. Wing pattern, venation, related larval hosts, and habitat certainly show relationships between *P. troilus* and *P. palamedes*, for example!

Dr. White does have a point concerning subgenera, subfamilies, etc. Some day it might be possible to have a brief shorthand biological code to express chromosomal, genitalic, ventational, wing shape, and larval host similarities (or differences) to follow generic headings; but, until that day arrives, the Linnaean nomenclature is the best thing we have!

In relation to another issue--that of the use of chemicals in science; this is not a problem limited to entomology, biology, and chemistry, but also occurs in

geology, mineralogy, and geochemistry. We cannot adequately separate genetic weakness and environmental exposure, but the danger is there.

For several years I have had a liver ailment (involving bile ducts). At times (although not constantly), I have had to use such chemicals as carbon tetrachloride, xylene, bromoform, naphthalene, and others, both in mineralogy and geochemistry and as an entomologist. I was also exposed to a herbicide at several times when collecting in the field. As I youth, I used hexachlorophene soap (under a doctor's prescription) for several years before we knew of the danger of this chemical and its possible alteration to a form of dioxin. I feel this chemical exposure played a part. A colleague of mine in the W.I.U. geology department told me of a professor at Stanford University who worked constantly with bromoform in heavy mineral separations and eventually died of liver carcinoma.

The point of all this is that there is a risk in any continued chemical exposure. For my part, I have discontinued much of this exposure--where necessary, I now wear gloves and mask.

David F. Hess  
Macomb, Illinois



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

Dear Ripples,

While reading the May/June issue of the NEWS, I noticed the exchange about northern E. claudia captures. I have one to add.

July 15, 1983 I captured a worn E. claudia on the Red Deer River about 30 miles north west of Brook (ap. 100 miles S.E. of Calgary). This is the first time I have heard of E. claudia from Alberta.

Alas, in regard to the mention of V. cardui migration, there seems to have been one here in (through?) Alberta! On August 15 I began seeing V. cardui commonly throughout Calgary. Usually it is uncommon in the city. From August 16-18 I sighted approximately 250 V. cardui in the city! They all seemed to be flying in a west-northwest direction.

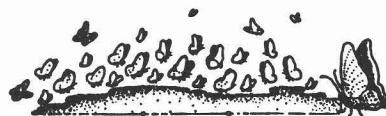
On August 21 and 22 I was camping at Chester Lake (near Fortress Mountain ski resort) and saw between 500 and 700 V. cardui. All that I saw appeared to be fresh! The single direction of flight was even more evident. From about 8:00 AM to 3:00 PM it was impossible to look anywhere and not see a V. cardui. Again they were flying west to northwest. (Chester Lake is west and slightly north of Calgary). I would be interested in hearing from anyone with further observations on this "migration", or from anyone with E. claudia records from Alberta. Thank you very much.

Yours truly,

David Lawrie  
906 Riverdale Ave. SW, Calgary,  
Alberta T2S-0Y6 CANADA

Editor's note: About 15 years ago my brother, who lives in La Jolla, CA., saw a migration of V. cardui while driving through the desert. At the time he reported to me that the butterflies were so numerous that he had to stop his car and wait for the invasion to pass, since he could not see through his windshield well enough to risk driving through the masses. Two years ago we had an outbreak of V. atalanta on the Island of Islesboro in Maine. At its peak, June 23, 1981, Dave, on checking his

4 bait traps in the early morning hours, discovered 1 Nymphalis antiopa, 4 Pologonia interrogationis and 51 Vanessa atalanta carousing with the moths who were "in their cups" (of stale beer, rotting bananas and brown sugar)!



## Forthcoming Meetings

### '84 ANNUAL MEETING UPDATE

Plans are proceeding well for July in the Peace River Valley. While we have not yet received a guarantee on the weather, other activities have been confirmed.

The Hands On Workshop on Microlepidoptera is confirmed, and is being organized by Jean-Francois Landry, Dept. of Entomology, University of Alberta, Edmonton, Alberta T6G-2E3, Canada. Applicants will receive a beginning set of necessary equipment including pinning boards, curved forceps, pins, and sundry other items required to pin micros. The workshop will include collecting of specimens (black lights provided on loan), pinning sessions, and a session of curating. There is a limit of ten participants. Registration fee for this part of the meeting is \$25.00 Canadian, submitted to Jean-Francois. Since equipment has to be ordered well before the meeting, please register for this workshop promptly.

For spouses and families, we are planning short trips to local points of interest, with picnics, if weather permits.

There has been some difficulty organizing a symposium on Butterfly Nomenclature. Perhaps the most valuable suggestion has been to set up a session where systematic methods are summarized, and then applied to evaluate some of the recent changes in this field. The aim would be to establish the values and quality of the changes. If any NON\*ALIGNED specialist would like to assist or take part in such an endeavour, please contact Ted Pike at (403) 835-5381. It would be especially important to have views of European specialists and impartial viewers from uninvolved continents.

We look forward to seeing you up our way this summer.

Ted Pike  
Jean-Francois Landry  
Felix Sperling  
Norbert Kondla

### CALL FOR PAPERS

Those persons interested in presenting papers for the 1984 Lepidopterists' Society meetings are invited to submit titles for consideration for inclusion in the sessions of contributed papers.

An abstract, or synopsis, for each title is also requested, maximum 250 words, covering the important facts and conclusions of the paper.

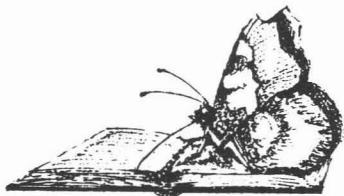
The following format is suggested.

Title:  
Author(s):  
Affiliation:  
Address:  
Phone number and area code:  
Presenter of paper:  
Time requested (10, 15 or 20 minutes including discussion):  
Audio-visual aids required:  
Abstract:

DEADLINE FOR SUBMITTING TITLES AND ABSTRACTS IS APRIL 1, 1983. Notification of acceptance will be mailed to applicants by April 30, 1983.

Mail to: Ted Pike, Box 1231, Fairview, Alberta T0H-1L0, Canada.

## Books



### REVIEWS

How to Write and Publish a Scientific Paper, Robert A. Day. Prices (soft cover/hard cover, U.S. dollars): \$11.95/17.95 in U.S., Canada, Mexico; \$14.95/20.95 in other countries. I.S.I. Press, 3501 Market St., Univ. City Science Center, Philadelphia, PA 19104. In 180 pages, this book covers not only technical details of manuscripts, but also ways to make an article more readable and understandable. I'm sure our editors would love to have all authors/contributors read this book. This is an updated second edition; the first was in 1924.

Ron Leuschner

A Silkmoth Rearer's Handbook, Brien O. C. Gardiner. Prices \$23 surface mail (3 to 6 weeks) or \$30 airmail in dollar bank or postal drafts payable to AES Publications, 4 Steep Close, Green Street Green, Orpington, Kent BR6 6DS, England. 268 pages of text including 32 pages of colored plates, 26 pages of black and white plates and 14 text figures, plus a detailed bibliography. This is a much-enlarged, revised edition of the book written in 1956 by W. J. B. Crotch. For Lep. members interested in rearing, it is an excellent book and highly recommended.

Paul F. Pfenninger

Costa Rican Natural History, edited by Daniel H. Janzen. Published Oct., 1983. Price: \$30 (U.S.) for paper cover, \$50 for hard cover. Inquire or order from: The University of Chicago Press, 5801 S. Ellis Ave., Chicago, IL 60637, USA. This handsome volume has 816 pages of information on many topics of natural history: climate, geology, dispersal routes, plants, trees, mammals, birds, and of course--insects. The cover is in color and within are many black/white photographs. The format presents detailed information on a few selected species, plus checklists of certain families. The 160 pages on insects include checklists of Sphingidae (W. A. Haber) and Butterflies (P. J. DeVries), plus many highlights of specific species of Lepidoptera. This is a worthwhile contribution to the study of the tropics.

R. H. Leuschner

The Life History of Butterflies in Japan by H. Fukada, E. Hama, T. Kuzuya, A. Takahashi, M. Takahashi, B. Tanaka, H. Tanaka, M. Wakabayashe, & Y. Watanabe, Vol. 1, XXII, 210 pp with 64 color plates, Hoikusha Publishing Co., Ltd., Osaka, Japan.

Japan consists of four major and more than 3000 small islands. It is located at the far east area of the Eurasian continent, ranging between subfrigid zone (46°N. lat.) and subtropics (24°N. lat.). The altitude also varies from sea level to 3000 m (10,000 ft). These geographical variations have offered numerous unique environments for 230 species of butterflies in this country. These butterflies, some of them are breathtakingly colorful, have attracted a great deal of attention from Japanese people for generations.

The research history of Japanese butterflies can be traced to as early as the 7th century. Pieris rapae was dedicated to the emperor because of its celebrated white color<sup>1</sup>. This might be the first record of the invasion of this butterfly into Japan from the continent. An anonymous princess loved insects and raised many butterflies against her parents' will<sup>2</sup>. Since those days, butterflies have periodically appeared in art designs, child's toys and in some scientific documents throughout the period up to 19th century. Research on the butterflies began in late 19th century, when Japan

opened the land to foreign countries and consequently to modern scientific technology, including classification methods by Linneus. Until 1945, most research has focused on classification, taxonomy and distribution analysis of adult butterflies. From then until 1960, many life history studies were published. The life cycles of almost all butterflies in Japan have been well documented. After this period until the present, the research has been oriented toward behaviour observations and genetic and physiological analysis. As a result, Japanese lepidopterology has reached the highest level in the world. Many well-written and well-illustrated books about Japanese butterflies have been published<sup>3-6</sup>. But the problem was that most of them, if not all, were published in Japanese. This language barrier has made it difficult for foreign scholars to study Japanese butterflies. Now, for the first time in the research history of Japanese butterflies, a "Japanese butterfly book" with English abstract has been published.

The Life History of Butterflies in Japan is the first comprehensive work covering the ecology of Japanese butterflies. The work will be published in four volumes, first volume is available now. The vol. 1 describes about 60 species from Papilionidae, Pieridae and Danaidae. The book consists of 64 color plates and legend of 230 pages with illustrations. One to two plates are devoted to each species, which contain five to seven photographs of eggs, larvae (two stages), pupa, adult and habitat. The legend is subdivided into sections of: brief outlines of the species; distribution in the world and in Japan; habitat; food plants and life history; natural enemies; and references. A distribution map completes the volume. Total legends are between one to seven pages depending on the species. Most space is devoted to the description of the life history. The authors have observed very carefully the behaviour not only of adults but also of pupae and larvae. For example, we find the following descriptions for Parnassius eversmanni: "Adult male begins to fly at 6 am through fixed route quickly and straightly. Females awake 1-2 hours later than males. They collect nectar best at Diapensia lapponica, but curiously not at their food plant Dicentra peregrina. Mating takes about 50-70 minutes, and mating couple fly  $\leftarrow\text{♀}\rightarrow\text{♂}$  patterns. The female is very particular about the ovi-position, spending a lot of time looking for favorable plants. It takes 10 to 20 seconds to lay one egg. Larvae wake about 6 am, and eat leaves, flower buds and even stems at 8-10 am. Then they go to sun-bath which seems to be the most favorable thing to do for them. Many larvae are eaten by birds but no parasites have been reported." The description is concise and informative. We can get an almost complete picture about the species through this work. In this sense, even an "arm-chair butterfly lover" can enjoy this book.

Now, criticism. First of all, the English abstract is far from satisfactory although the translation itself is excellent. Almost all descriptions about interesting behaviours are omitted. For example, P. eversmanni is described in more than 4 pages in the text while its English abstract is only 10 lines. Maybe it is too much to ask a more detailed translation since the book was made for Japanese students. However, the legends for color plates are also written in Japanese including the names of species. The foreign scholars can not identify what is what. Certainly they need much imagination to enjoy the book. This could have been improved by adding short legends to the English abstract. Also it would have been better to add Latin names of the species in each plate. Second, the size of the book (6 x 8.5 inches, hard cloth cover, almost one inch thick). I found that the color photographs of eggs, larvae and pupae could be very useful to look for and to identify them outdoors. But the book is too large and heavy as a field guide. As the library book, I wonder if they could not have made it one size larger. Seven photographs per plate give it a crowded appearance.

I have enjoyed this book very much and gotten new information about butterflies in Japan. I hope that the



authors and the publisher will consider publishing a complete English edition of this series and a compact field guide book with these excellent photographs.

This book may be obtained for ¥4,300 (approximately US\$18.00) from Hoikusha Publishing Co., Ltd., 1-17-13, Higashi-ku, Osaka 540, Japan.

Hiroshi Sano, Brookline, MASS.

- <sup>1</sup>Matsui, M. (1979) Entomology of family-name in reference to the Japanese language. *Yadoriga* No. 99-100, 30-33.
- <sup>2</sup>Matsui, M. (1979) *ibid*, and in "The princess who loved insects" from *The Tale of Tsutsumi-Chunagon*, early 11th century.
- <sup>3</sup>Shirozu, T. (1965) *Butterflies of Japan*. Hokuryukan Publishing Co., Ltd. Tokyo, Japan.
- <sup>4</sup>Kawazoe, A. & Wakabayashi, M. (1976) *Colored illustrations of butterflies of Japan*. Hoikusha Publishing Co., Ltd. Osaka, Japan.
- <sup>5</sup>Shirozu, T. & Hara, A. (1960) *Butterfly larvae of Japan*. Hoikusha Publishing Co., Ltd. Osaka, Japan.
- <sup>6</sup>Fujioka, T. (1975) *Butterflies of Japan*. Kodansha Publishing Co., Ltd. Tokyo, Japan.

The Life History of Butterflies in Japan by H. Fukada, E. Hama, T. Kuzuya, A. Takahashi, M. Takahashi, B. Tanaka, H. Tanaka, M. Wakabayashi, & Y. Watanabe, Vol. 2, XXII, 325 pp, 64 color plates, 1982, Hoikusha Publishing Co., Ltd., Osaka, Japan.

Volume 2 covers the Nymphalidae and Libytheidae of Japan and follows the same format as volume 1: excellent life history color photographs, sequenced with arabic numerals but annotated solely in Japanese; extensive Japanese text, describing the life histories in detail; a summary of each life history in English; distribution maps keyed with Latin names, and indices in English and Japanese. The comments in Hiroshi Sano's review of volume 1 above apply equally to this volume. It is a magnificent volume, available at the slightly higher price of 4500 yen (about \$19), from the same source.

Dave Winter

## Notices



### THAILAND, ANYONE?

Mr. Adam Cotton wishes to provide the following services to collectors and lepidopterists who may wish to spend time collecting or studying in Thailand. Mr. Cotton is a young English lepidopterist fluent in the Thai language, living in Bangkok, who will offer his single spare room as FREE accommodation in that city (hotels are not very cheap) to members of the Lepidopterists' Society. He will also take people on collecting trips to localities up country on condition that the costs of his accommodations, food, travel expenses, etc. are paid for him on said collecting trips. In return he will act as guide to good collecting spots and assist in ensuring that expenses are kept to a minimum. Three months advance notice is requested for booking his spare room. One month's notice requested if his services as a guide only are desired. Mr. Cotton specializes in world Papilionidae and visitors are welcome to view his large collection and library. For further information, advice or booking, write to Adam M. Cotton, 38/1 Soi Saeng Chan, Sukhumvit 40, Bangkok 10110, Thailand.

## JOURNAL UPDATE

The latest issue of the Journal, Vol. 37, No. 2 was mailed in September. Volume 37, No. 3 is not yet in press.

## PROGRAM AND ABSTRACTS, 34th ANNUAL MEETING

Persons who are interested in the content of papers will welcome this opportunity to purchase a copy of the Program and Abstracts of the Meeting. This is an 18 page spiral bound permanent record of the Meeting with a full, up-dated program and printed abstracts (250 words more or less) of each of the delivered papers including the special symposium. You won't want to miss it. The price for the abstracts is \$3.50 (postpaid). Order from: The Ohio Lepidopterists, c/o Eric H. Metzler, 1241 Kildale Sq. N., Columbus, Ohio 43229, USA.

## COMMITTEE ON NOMENCLATURE

The information reported in NEWS #5, 1983 regarding Lycaeides idas/argyrognomon was not entirely correct. The present status according to Opinion 269 of the ICZN is as follows: The name idas Linnaeus, 1758 was suppressed. The 1758 name applied to an oriental skipper of questionable identity. The name idas Linnaeus, 1761 applies to Lycaeides idas from Sweden and other portions of the Old World. The name argyrognomon Bergstrasser, 1779 was not suppressed, but rather applied to the Eurasian Lycaeides argyrognomon. A synopsis of Opinion 269 of the ICZN is to be found on pages 20-22 of that document. Based upon current work in Europe (unpublished as yet), it appears that North American specimens currently called argyrognomon are instead referable to idas [L. G. Higgins, *in litt.*]. Thus nomenclature regarding this species in North America is not completely resolved.

\* \* \* \* \*

In the same issue of the NEWS, it was reported that work was in progress concerning the Erebia youngi/dabanensis complex in North America. This work has now been published. The citation is: Troubridge, J. T. and K. W. Philip, 1982(83). A review of the Erebia dabanensis complex (Lepidoptera: Satyridae), with descriptions of two new species. *J. Res. Lepid.* 21(2):107-146. To summarize this article: E. dabanensis does not occur in North America. The three look-alike species in North America are: youngi, phellea [= occulata Roos & Kimmich], lafontainei. E. youngi has three subspecies: youngi, herscheli, rileyi.

\* \* \* \* \*

The British Museum (Natural History) has recently published a revision of the blue butterflies of the Lycaenopsis group, authored by J. N. Eliot and A. Kawazoe (Publication #860, 1983). This 309-page volume is extensively illustrated with genitalic drawings, drawings of androconia, black-and-white, and colored photographs. The authors have sunk the taxon ladon in Celastrina to subspecific status. Based upon their analysis, North American material is again referable to the species argiolus Linnaeus, 1758. C. argiolus ladon Cramer, 1780 refers to butterflies that occur in the southeastern quarter of the United States (excluding southern Florida) westward to the Rockies.

\* \* \* \* \*

A revision at the generic level of the Papilionidae was published on March 10, 1983. The citation is: Hancock, D. L., 1983. Classification of the Papilionidae (Lepidoptera): a phylogenetic approach. *Smithersia* 2:1-48. The conclusions drawn in this paper are based upon fossil records, genitalic structures and other morphological evidence. Hancock's findings support the nomenclature for the Papilionidae used in *Memoir #2* (Miller & Brown) of the Society.

Clifford D. Ferris  
P.O. Box 3351 University Station  
Laramie, Wyoming 82071

## LEPID. NEWS VOLUME 1 IS AVAILABLE AGAIN

We exhausted our supplies of the original Volume 1 about 2 years ago. Now, through the efforts of Stan Nicolay, a neatly re-typed version has been located. The page layout and even the hand-drawn figures have been made just like the original. We are now offering copies even better than the mimeo sheets of the original, which often "bled-through" to the other side.

The price for a complete copy of Volume 1 is \$15.00 (U.S.) postpaid. This includes the 100 pages of text, a 3 page letter from Charles Remington, and the first Membership List (14 pages) which gives the Charter Members. Order this historic document as you would any other back issue from Ron Leuschner, 1900 John St., Manhattan Beach, CA 90266, USA. Pre-paid orders for entire volume only, please.

## SEA WORLD DISCOUNT

A 15% discount on admission to all three Sea Worlds (San Diego, Orlando, and Aurora, Ohio) is now available for all members of the Society. Association Executive Club Cards will be mailed on request. Please send a self-addressed, stamped envelope to the Society Secretary, Julian P. Donahue (address on back page).

## COMMEMORATIVE CACHETED COVERS

The Columbus Philatelic Club designed and produced cacheted covers to commemorate The Lepidopterists' Society 34th Annual Meeting in Columbus, Ohio. Serviced cacheted covers, with postage stamps affixed and cancelled with the special, pictorial cancellation, are available at \$1.50 each, or a set of four covers (one cancelled each day of the Meeting) for \$3.25. Unserviced cacheted covers are available at \$1.50 for four, or \$2.50 for twelve. Prepaid mail orders will be accepted for both serviced and unserviced cacheted covers while the supply lasts. Make check payable to Columbus Philatelic Club and mail to: Dr. Russell V. Skavaril, Department of Genetics, The Ohio State University, 484 West 12th Avenue, Columbus, Ohio 43210, USA.



## New Members



- BOLLES, J. CRAIG: 3934 Manitou Way, Madison, WI 53711.  
HETHERINGTON, WILLIAM STEWART: 64 Windward St., Apt. 208, St. Catharines, ON. L2M 4H3, CANADA.  
IVY, DR. EDWARD E.: 7027 Mission Place, Huntington Park, CA 90255.  
LEVINE, ARTHUR: 24 Jerold St., Plainview, NY 11803.  
McDANIEL, JOHN D.: Rt. 2, Box 562, Waller, TX 77484.  
ODEGARD, CRAIG: 7384 Beryl Lane, Missoula, MT 59801.  
PINKERTON, KEVIN J.: RD #3, Box 429, Manheim, PA 17545.  
PORTER, ADAM H.: Zoology Dept., Univ. of California - Davis, Davis, CA 95616.  
WATKINSON, DR. IAN A.: 420 Cheshire Lane, Modesto, CA 95350.  
WHEELER, MAX E., M.D.: 2535 Lynnhaven Ct., Ashland, KY 41101.  
WRIGHT, DONALD J.: 3349 Morrison Ave., Cincinnati, OH 45220.

## Address Changes



- ANDERSON, RICHARD A.: 113 Sisler Dr., Ft. Bragg, NC 28308.  
BIEBESHEIMER, MRS. J.: 204 Keifer Dr., Pittsburgh, PA 15241.

- DOYLE, JOSEPH F., III: 8730 Timberwilde, San Antonio, TX 78250.  
HALBERT, DICK: P.O. Box 3002, Sierra Vista, AZ 85636.  
HEPPERLE, DONALD: P.O. Box 24, Reinbeck, IA 50669.  
LADENSOHN, DAVID A.: 3016 Jarrad, Houston, TX 77005.  
MADENJIAN, JIM: 243 N. Adams, Apt. 5, Glendale, CA 91206.  
McDERMOTT, NANCY MILES: 61 Warren Hall, Cornell Univ., Ithaca, NY 14853 (note name change).  
NEIL, DR. KENNETH: Agriculture Canada Research Station, 6660 N.W. Marine Drive, Vancouver, B.C. V6T 1X2, CANADA.  
OGUNWOLU, DR. E. O.: School of Agric., Crop Science Dept., Fed. Univ. of Technology, P.M.B. 2373, Makurdi, NIGERIA.  
PETERSON, RICHARD D., II: P.O. Box 267, Weslaco, TX 78596.  
PETERSON, STEPHEN E., JR: P.O. Box 213, Spring Branch, TX 78070.  
PLONCZYNSKI, MARIA: 2922 Vaughn St. #3, Cincinnati, OH 45219.  
PRICE, ROBERT A.: 442 Wyeth Rd., Hayward, CA 94544.  
RASDALE, JEAN K.: 816 W. 113th Ave., Tampa, FL 33612.  
ROBERTS, MICHAEL A.: RFD Box 71A, Steuben, ME 04680.  
SIELSKI, LESTER B.: 5470 Jackson St., Merrillville, IN 46410.  
SLEETER, RON: ADM Co., 1251 Beaver Channel Pkwy, Clinton, IA 52732.  
TINTPULVER, MEL: 761 Ericson Rd., Mississauga, ON L4Y 2E8, CANADA.  
WEHLING, WAYNE F. (change middle initial).  
WIERNASZ, DIANE C.: Dept. of Biology, 109 Thille Lab., Pomona College, Claremont, CA 91711.

Buy  Sell  Exchange 

BUY - SELL - EXCHANGE: POLICY STATEMENT....

At the Executive Council meeting in Fairbanks in June 1979 it was decided that the policy regarding placement of members' notices in the NEWS should be determined by the Editor, in keeping with the purposes of the Society as outlined in the Constitution, i.e.: "... to promote the science of lepidopterology; ... to facilitate the exchange of specimens and ideas by both the professional worker and the amateur in the field, ..." (Article II). Commerce in lepidoptera is not a stated objective.

Therefore, it will be our policy to print notices which seem to meet the above criteria, just as in the past, without quoting prices (except for those of publications or lists). Notices which seem by their listing of offerta/desiderata, or by an organizational title, to be commercial in nature, will be entered in a separate section as "commercial notices", listing only name, address, and a brief indication as to material offered/desired. No mention may be made in these notices of any species on any threatened or endangered species list.

The Society, as always, expects all notices to be offered in good faith and takes no responsibility for the integrity of any advertiser. Only members in good standing may place ads. Ads will be printed only once unless entry in two (maximum) successive issues is requested. S.A.S.E. calls for a self-addressed stamped envelope.

WANTED: Catocala ova, any species, will buy or trade. Can exchange papered cara, neogama, innubens, cerogama and a few relictata. Also desire your price list for papered Catocala ssp. John Jordison, 414 North 61st Street, Omaha, Nebraska 68132.

FOR SALE: "A GUIDE TO LEPIDOPTERA COLLECTING LOCALITIES IN THE OWENS VALLEY REGION (Eastern Sierra Nevada and Western Inyo County, California)", by Emmel, Powell, and Leuschner. 1983. 4 pages plus 4 maps, describing 19 localities and some of their choice species. Published by the Society's Pacific Slope Section. For each copy send 37 cents in postage stamps plus \$2.00 cash or check, payable to Julian P. Donahue, Natural History Museum, 900 Exposition Blvd, Los Angeles, California 90007, U.S.A.

CONTACTS WANTED: I am looking for contacts with specialists in the following African groups: Danaidae, Acraeidae, Papilionidae, Charaxinae, Nymphalidae. Also contact with Museums. Wish to exchange knowledge and specimens. Kurt and Noelle Rumbucher, 89 Augsburg, Bitschlinstrasse 2, West Germany.

FOR SALE: Signatures of famous lepidopterists in 5 typed and 3 handwritten letters. Includes Harry K. Clench, John A. Comstock, Richard M. Fox, William Hovanitz, Vladimir Nabokov, G. Talbot, C. B. Williams and Colin W. Wyatt. Also signature of Arthur G. Butler on an 1875 reprint. Send SASE for price. Oakley Shields, 4890 Old Highway, Mariposa, Calif. 95338.

WANTED: Pupa of Heraclides cresphontes, Battus polydamas, Eurytides marcellus, Samia cynthia, Callosamia angulifera, Callosamia securifera. Alani Davis, P.O. Box 727, Gonzalez, Florida 32560.

FOR SALE: LEPIDOPTERA:HESPERIIDAE, Notes on Species-Group Names, by Charles A. Bridges, 1983. Catalogs 9039 names. Bibliography of 1640 items. Published by the Author: 290 pp. Price (post paid): \$37.50. Available from the Author, 502 W. Main St., Apt. 120, Urbana, ILL. 61801.

FOR SALE OR EXCHANGE: Wild collected Hyalophora cecropia cocoons. Discounts on orders of 100 or more. I prefer to exchange for saturniid material. Send offers with SASE to Steve Stone, 18102 East Oxford Drive, Aurora, Colorado 80013.

FOR TRADE: Sphinx franckii pupae for other Nearctic rarities that are needed for my collection. Write John M. Coffman, Rt. 1, Box 331, Timberville, VA 22853.

FOR SALE: Pupae of E. imperialis, Automeris io, C. angulifera, C. promethea, A. luna, A. polyphemus, Sphinx amyntor, Sphinx franckii, L. bombycoides, A. stigma, A. senatoria, D. rubicunda. Send SASE for list. John M. Coffman, address above.

FOR SALE OR EXCHANGE: Repaired ♂ and ♀ Papilio homerus. Also "copy" of Rothschild & Jordan, A Revision of American Papilios and D'Almeida, Cataloga Dos Papilionidae Americanos. Please send offers with SASE. Also FOR SALE ♂ and ♀ Greta diaphane diaphane and G. coranthus lillige from Jamaica. Rick Rozycki, 5830 S. McVicker Ave., Chicago, Ill. 60638.

FOR SALE: Manitoba lepidoptera. Males only of Oeneis alberta alberta, Colias interior, B. titania grandis, Speyeria aphrodite manitoba, S. atlantis, S. cybele pseudocarpenteri. Also other species. Price list available. C. S. Quelch, 20 Highgate Rd, Toronto, Ontario M8X 2B2, Canada.

FOR SALE: In hopes of recouping expenses for the 1983 Sesiidae project, I am selling GUARANTEED NOVEL Lep.-type gifts. Mounted butterflies, but presented in a fashion which I've never seen. Cost guaranteed to be unusually low, or complete refund offered. I've seen catalogs cost more! All funds to be applied to the 1984 pheromone project leading to a publication. Dr. John Holoyda, 2819 N. Marmora, Chicago, ILL 60634. Send SASE or phone (312) 237-0543.

FOR SALE: Catocala ova - cerogama, concombens, residua, obscura, relicta and a few others. Also Pieris virginianensis pupae. Will exchange for other Catocala ova. Also FOR SALE or EXCHANGE: Western Pennsylvanian L. a. arthemis, C. harrisii liggetti, L. astyanax hybrids, etc. A few S. diana reared pairs, C. ebenina, E. laeta ♀'s for other hard to obtain specimens. Send offers to Frank R. Bodnar, Box 52, Spring Church, Penna. 15686.

FOR SALE OR EXCHANGE: Wild collected cocoons of H. cecropia (prefer exchange). Also student economy series wood spreading boards of assorted lengths and slot sizes (cheap). WANTED: Pupae of P. cynthia. James Romer, 7991 E. Hampden Circle, Denver, Colorado 80237.

EXCHANGE: I have some Speyeria nokomis nokomis which I would like to exchange for Speyeria nokomis nitocris, Speyeria nokomis wenona, Speyeria nokomis coerulescens, or Speyeria diana. George Andrushko, 278 W. Independence, Harrisville, Utah 84404.

FOR SALE: A. polyphemus cocoons. Large or small quantities. Jim Oberfoell, Rt. 2, Box 103, Bowman, ND 58623.

#### MEMBERS' COMMERCIAL NOTICES....

W. B. RICHFIELD, International Specimen Supply, P.O. Box 1066, Goleta, CA 93116, USA. Selling quality global Lepidoptera and other insects. For specimen price list subscription (12 issues), send either \$5.00 domestic fee or US \$10.00 foreign fee.

TRANSWORLD BUTTERFLY COMPANY (LS), Apartado 6951, San Jose, Costa Rica, C. America. Own British Delivery office, own Butterfly breeding projects, and extensive collectors network. Over 250 European species, over 45 Morpho species, plus much more! If you collect butterflies write us! Mastercard welcome. Catalog \$1 or \$6 for Year's monthly mailings, discount offers.

IANNI BUTTERFLY ENTERPRISES, P.O. Box 81171, Cleveland, Ohio, 44181, phone (216) 888-2310. Fine quality, named, world wide butterflies, especially of the neotropical regions, for sale. Listings from Brazil, Peru, Columbia, Bolivia, Argentina, Panama, Costa Rica, El Salvador, Venezuela, Mexico, and the Bahamas. Some rarities from Indonesia also available. Reasonable prices, full data. For latest list, contact Chuck Ianni or send \$5.00 for one year price list subscription. The following books are also for sale: The International Butterfly Book by Paul Smart. 275 pages, hard bound. Over 2,000 butterflies photographed full size. Encompasses evolution, habitats, history, classification, structure and ecology. Postpaid, \$32.45 check or Money Order. Beetles of the World by Gakken. 144 pages, hard bound. Illustrates over 600 worldwide beetles in full color with fine representation of major and most popular families. English index gives names of species and countries of origin. Text Japanese. Postpaid, \$35.00 check or Money Order.

MRS. CHANG PI-TZU, P.O. Box 873, Taipei, Taiwan (Formosa), Republic of China. Selling Formosan butterflies, moths, beetles and other insects; sexual mosaics, aberrations and rare butterflies of Taiwan including one gynandromorph of Actias sinensis; ova of Attacus atlas and cocoons of Attacus atlas and Actias sinensis.

CHRISTOPHER J. FARRELL, Apartado 360, Buga Valle, COLOMBIA. Offering, wholesale only, a large variety of Colombian Lepidoptera, Coleoptera and other insects, including many rare species. Mixed lots of assorted butterflies, Morpho species, Agrias, Papilios etc. Dynastes hercules/neptunus, Magasoma, Psilidognathus, Callipogon, Macrodonia, etc. Also mixed lots Cerambycidae, Buprestidae, Elateridae, Chrysomelidae, Carabidae, Scarabidae, Rutelidae etc. Material also available from Brasil and Peru. Please note that no price lists are available at the moment. Please state your needs/interests when writing. Anyone visiting Colombia would be welcome. I will help regards localities, etc. I would like contact with other collectors/suppliers in S. American countries who are interested in selling or exchanging material.

INSECTS, div. Combined Scientific Supplies, P.O. Box 1446, Ft. Davis, TX 79734, USA. New catalog now available, 155 pages of listings and 28 plates, listing some 6,000 items from 90 different countries. Butterflies, Moths, Beetles and all other Orders are represented. \$5.00.

from: The Lepidopterists' Society

ADDRESS CORRECTION REQUESTED:

Allen Press, Inc.  
P. O. Box 368  
Lawrence, Kansas 66044

NONPROFIT ORG  
BULK RATE  
U.S. POSTAGE

PAID

PERMIT NO. 116  
LAWRENCE, KS

J. Donald Eff  
445 Theresa Dr.  
Boulder, CO 80303

=====

DEADLINES: Material for the Jan/Feb issue should reach the NEWS EDITOR by Dec. 1 of the previous year, and that for the Mar/Apr issue by Feb 15, for the May/June issue by Apr 1 and for the July/Aug issue by May 1, the Sept/Oct issue by Aug 15 and the Nov/Dec issue by Oct 15. Reports for the SEASON SUMMARY must reach the ZONE COORDINATORS listed on the front cover no later than the 15th of January.

=====

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 the 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 must 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.

=====

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 Jan/Feb 1983, page 6.