

NEWS

of the LEPIDOPTERISTS' SOCIETY

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44th Annual Meeting - Fort Collins, Colorado

by Dave Winter Dedham, Massachusetts

It is difficult to pinpoint when an annual meeting actually begins. It begins as much as four or five years in advance when Jackie Miller, in casting about for volunteers, locates someone to take on the task at a given time and place. Executive Council approval follows...almost automatic in the case of a well-known host and site, or after detailed investigation, in other cases. Then comes a one to three year period for securing reservation of facilities, checking out costs and liability considerations, etc.

Planning the details of the meeting sessions per se, and of the E.C. meeting agenda, requires a 6-8 month lead time. When the meeting is finally ready to be enjoyed (or, in the case of the E.C., endured), its gestation period puts that of the elephant to shame.

The 44th annual meeting, in Fort Collins, Colorado, got under way Wednesday evening, 7 July, with Ray Stanford's informal reception for officers, followed Thursday a.m. by the meeting of the Publications Committee. The afternoon meeting of the E.C. began at 1:00 p.m. and would end at 7:25 p.m., thankfully the same day.

By that hour the part of the meeting for which everyone had assembled was well under way: reception at the home of meeting chairman Paul Opler...sponsored by BioQuip, and managed by Louise Fall, Evi Buckner, and Poody Brown. It was the ideal opportunity for catching up with old friends, making new acquaintances, and even making an occasional

Unavoidable publication delays have resulted in Issue #4 July august 1993 being mailed late. To avoid the continued delay of subsequent issues, you will note that this is a combined issue #5 & #6 (Sept/Oct & Nov/Dec 1993). also note that this delay has made it impossible to have the notice (p.104, NEWS 1993) announcing the proposed amendment to the Constitution (Article X. Auditing Committee) in our readers' hands the required three months before the November ballot mailing. therefore not included on the ballot in November 1993. the vote will necessarily be delayed until November 1994.

mosquito happy. A mercury vapor light set up on the back lawn gave superb illumination but attracted rather few moths.

The formal presentations opened Friday a.m. with a welcome by Tom Holzer, Chairman of the Department of Entomology of Colorado State University. Bill Howe, of Ottawa, Kansas, presented one of his butterfly paintings to Dr. Holzer, for CSU, to M. Deane Bowers, for the University of Colorado , to Jerry Powell, UC Berkeley and to C.Don MacNeill, Oakland Museum.

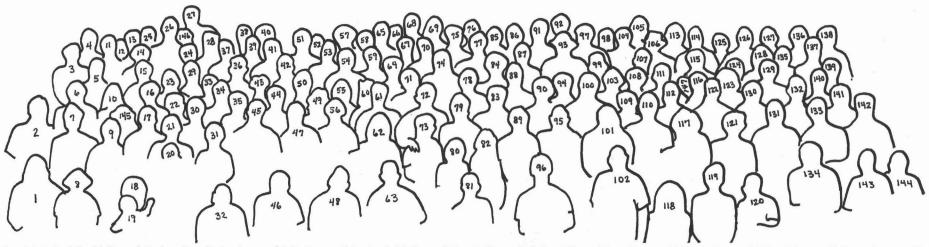
As always, the presented papers appealed to a broad range of interests: mate location in male butterflies; learning in butterflies (re: flower choices); host selection by migrating *V. cardui*; phytochemical

patterns as constraints to larval growth in nymphalids. Victor Sarto, an S.E.L. member from Spain, gave a fascinating account of the south African hairstreak, *Cacyrcus marshalli*, whose larvae are devastating the ornamental geraniums in the window boxes in the Balearic Islands and southern Spain. And if you didn't know what "frost bottoms" are, Paul Goldstein was there to discuss the ecology of these relict geological structures on Martha's Vineyard Island, Massachusetts.

A pleasant surprise came with John Brown's presentation on the recent establishment of *Papilio cresphontes* in San Diego County. The speaker was somewhat less tall then we had anticipated...a knowledgeable 12-year old lad whose Editor-father stands to learn a great deal from him over the next few decades.

Karner Blue eggs are very small, and laid singly, yet Ryk Spoor was able to trace the fate of over a third of 342 eggs he located in the wild, and even show us videos of minute wasps emerging from some of the ova, ants snatching embryonated larvae from





1-Robert M. Pyle 2-Paul Milner 3-Barbara Bartell 4-unknown 5-John Brown 6-Stephanie McKown 7-Suzette Slocomb 8-Ann Milner 9-June Preston 10-Poody Brown 11-Ken Osborne 12-Deane Bowers 13-Phil McNally 14-Steve Kohler 15-Marc Epstein 16-Michael J. Weissman 17-Robert Mower 18-Mrs. Marc Epstein 19-Joey Epstein 20-Christopher M.W. Zink 21-Susan Weller 22-Bob Langston 23-Sid Dunkle 24-David Dussourd 25-unknown 26-J.D. Turner 27-Bill Harding 28-Ryk (Pete) Spoor 29-John Calhoun 30-Duncan Robertson 31-John W. Brown 32-Lowell Harris 33-Sterling O. Mattoon 34-Steve Spomer 35-Bill Miller 36-John Peacock 37-Andy Warren 38-Scott Ellis 39-Mike Fisher 40-Karölis Bagdonas 41-Jerry Powell 42-David C. Iftner 43-Judy Pooler 44-Jack Harry 45-Mike Doyle 46-David V. McCorkle 47-David L. Evans 48-Joel M. Johnson 49-Yves-Pascal Dion 50-Bernard Landry 51-Paul Goldstein 52-Amy Seidl 53-Dave Winter 54-Dan Petr 55-Danielle Plamondon 56-Bob Belmont 57-Bob Robbins 58-John Cody 59-Dale Clayton 60-Doris Brown 61-Terry Lott 62-Deborah Mathhews Lott 63-John F. Douglass 64-Jane Ruffin 65-Jim Tuttle 66-Robert Zink 67-Peg Tuttle 68-James Scott 69-David Leatherman 70-Ron Robertson 71-Don Davis 72-Ray Peterson 73-Judy Peterson 74-Bill Patterson 75-Ray Stanford 76-Julian P. Donahue 77-Ron Rutowski 78-Raymond W. Neck 79-Pauline Taylor 80-Allison Brown 81-Eric Rosenbaum 82-Halena Bagdonas 83-Charlie Covell 84-Steve Cary 85-Ernest Williams 86-George Stephens 87-Jim Brock 88-Vernon Covlin 89-Davin Bagdonas 90-Jim Wiseman 91-Mike Smith 92-Bob Borth 93-Mo Nielsen 94-Ray Albright 95-Robert C. Eisele 96-Richard Cowan 97-George O. Krizek 98-Leslie D. Price 99-Abran Kean 100-Larry Shaw 101-Bill Howe 102-William Swisher 103-Ann Albright 104-Bob Taylor 105-Ron Leuschner 106-John Nelson 107-Robert Kean 108-Pam Kean 109-Doug Ferguson 110-Steve Mueller 111-Don Wright 112-Kauri Mikkola 113-Jim Taylor 114-Floyd Preston 115-Gary Marrone 116-Gregory Swanson 117-M. Alma Solis 118-Astrid Caldas 119-Elaine Hodges 120-Ron Hodges 121-Harriet C. Scott 122-Michael Fibiger 123-L

others. Then, in striking contrast, Lee Miller took us on a tour through the Ituri Forest, focusing on some of the lepidopteral fauna. Papers on micro systematics balanced out the biological and behavioral sides of the program.

A subject of widespread interest..."Wildlife Laws and Enforcement"...presented by Terry Grosz, Assistant Regional Director, Law Enforcement, Lakewood, CO considered the realities of foreign collecting---past, present, and future...as well as the matters of trading, possessing or even providing temporary shelter to specimens of unverifiable documentation.

Evenings were devoted to social events (and contest!). The Friday evening cookout (actually an eat-in, because of threatening thunder showers) brought to mind the childhood scissors-paper-rock game, but this was a contest to see whether the plastic knife would cut through the recalcitrant steak before cutting through the plastic plate. Except for those blessed with perfect incisors, the steak was the winner. The flavor was fine, however, if you could just get to it. The excellent slide-fest which followed redeemed all.

Saturday evening's gala opened with a triple-threat book-signing by Covell, Opler, and Pyle at the adjacent Holiday Inn. After the traditional reception and banquet, President Ray Stanford announced the winner of the Harry Clench Award for the best paper presented by a student. Dana A. Garrigan, of the University of Utah, carried off the prize with his paper of "Host Abundance, Nutritional Quality, and Predation: Selection of Hosts by the Painted Lady Butterfly, Vannessa cardui". Runner up was Paul Goldstein, with special honors to John Brown the younger.

The late John Warren Johnson was honored with the 1993 John Adams Comstock Award. This will be detailed in the minutes of the Pacific Slope Section elsewhere in this issue.

Ray Stanford's Presidential Address on "Comparative Distribution of Lepidoptera vs. Lepidopterists" was a delightful and often hilarious account of past and contemporary collecting in the Rocky Mountain area. He cautioned that old locality labels of "Kansas" can be correct, even though the indicated terrain now lies well up in the Colorado Rockies, subsequent to the establishment of state boundaries. He also made clear, from personal accounts, that the absence of a species from a particular area often meant simply that no lepidopterist had yet taken the trouble to look for it at the right time. (I suspect Ray has shoe-boxes full of COUNTY RECORDS stashed away in his attic.)

Charlie Covell's annual door-prize drawing had its usual quota of quirks and triumphs: a few donors won back their own contributions, and a certain number of winners landed publications they already possessed, but most left the banquet revelling in their own good luck, or enjoying vicariously the good fortune of their friends. For those who were up to it, this year's post banquet dance (down East we call it a "hawg-'rassle") was held right on the premises of the Holiday Inn...no need to retire to the seamier side of town for the rhythm and romp.

The last paper of the formal session, Sunday morning, was Karölis Bagdonas' annual report on the grizzlies foraging (without permits, no doubt) at high altitudes on congregations of noctuid moths. The unseasonal summer snows and heavy rains the previous two years reduced the aggregations of moths so much that the bears had to resort to more conventional feeding lower down. Karölis' expertise in scataxonomy has enabled him to identify nine species of noctuids consumed by the bears.

Honorary Life Member and Charter Member F. Martin Brown had died on May 30 at the age of 90, just a few weeks before the meeting. In his memory we were privileged to view a video-tape of an interview Boyce Drummond had with him about six months before his death.

A future issue of the JOURNAL will detail his many contributions to lepidopterology and the Society.

The annual business meeting (minutes printed elsewhere in this issue) concluded the scheduled events. There were no pre-or post-meeting field trips sponsored by the Society. Certain liability considerations proscribed by CSU ruled these out. However, the collecting and observation guide prepared by Andy Warren, Ray Stanford, and Paul Opler gave excellent advice as to day and night collecting sites in the surrounding region. The season was definitely substandard, however, and numbers of leps observable were far below those noted in previous years. But as with fishing, what you don't catch you don't have to prepare. It's being there that counts.

Paul Opler, Boris Kondratieff, and their team deserve high praise for their excellent production. We all look forward to a performance of equal calibre at Callaway Gardens, Pine Mountain, Georgia, next August.

Minutes of the Annual Business Meeting 11 July 1993 Fort Collins, Colorado

The meeting was called to order by President Ray Stanford at 11:25 a.m. with over 50 members present.

Jacqueline Y. Miller reported on the plans for the 1994 Annual Meeting, to be held 4-7 August at Callaway Gardens, Pine Mountain, Georgia, with Frank Elia as general chairman, assisted by J. Y. Miller, Lee Miller, John Calhoun, and Jim Adams. Arrangements have been made for large room discounts in Callaway Gardens facilities; local motels are reasonably priced. While collecting is not permitted on the grounds or in the gardens, collecting sites are available in the immediate vicinity. August is the advent of the second brood for many species.

The 1995 meeting is projected for 29 June - 2 July in Minneapolis under the eyes of Bill Miller and Susan Weller; 1996 in Houston 15-18 June, courtesy of Raymond Neck & Karölis Bagdonas; and the 1997 50th anniversary meeting in Louisville or Columbus, under the combined aegis of the Kentucky Leps and the Ohio Leps, with Charlie Covell and Eric Metzler in charge.

Treasurer Bob Borth reported on the Society's financial status in general terms. There was a loss of $\pm 1400 for the year, but the back accounting is all cleaned up and we are clearly in a sound financial position. He emphasized the desirability of acquiring new members.

Secretary Dave Winter indicated that his activities had been proceeding in normal fashion, with a great deal of interaction with the public, members and otherwise. He noted that the membership brochure was being revised to bring it up to date, and hopefully to make it more attractive.

He further commented, as Editor, on the status of the Basic Techniques Manual: a review has been made of all the literature of the Lep Soc, of the regional societies, the Journal of Research on the Lepidoptera, and pertinent material in many texts and monographs. Reviewers have been lined up for individual chapters, and Charles Remington has agreed to contribute a foreword. Arrangements have been made to use existing illustrations as much as possible, and writing is underway. There is still time to consider for inclusion any member's special tricks or ideas --just contact him.

The President reported on actions taken at the Executive Council Meeting 8 July:

- a) Establishing the Society as a member of the Association of systematic Collections (ASC) was felt to be the best way to keep abreast of regulatory changes with regard to collecting, transport, and transfer of specimens, and to push for constructive changes in such regulations.
- b) A committee was established to keep Society members informed on Lepidoptera and the Law, with the members of the committee to be appointed by Ray Stanford.
- c) NEWS #4 will detail a proposed amendment to Article XIII of the Constitution regarding audits. The existing Article is difficult to understand; the proposal meets our needs and more closely matches our current practice. The amendment will be presented for a vote on the November ballot.
- d) Planning is under way for including color in one issue of the NEWS each year. No major changes are expected for the JOURNAL.
- e) There will be a need for a new Editor for the JOURNAL in 1995. Recruiting efforts are being initiated.

There being no new business to bring before the meeting, and none having been offered from the floor, President Ray Stanford read the names of those members, spouses of members, and prominent non-member lepidopterists whose deaths had become known to us since the last meeting. There followed a moment of silence in their memory.

Andy Warren, backed up by Lee Miller, read the report of the Resolutions Committee, commending for their efforts whose who together had produced such a smoothly functioning meeting, as well as those Executive Council members completing their terms of service at this time.

The President announced the nominating Committee as consisting of Jerry Powell, chairman, Floyd Preston, and Mike Smith, who are to have a slate prepared by 1 September.

Kauri Mikola, of Finland, invited Lepidopterists' Society members to attend the next meeting of the Societas Europaea Lepidopterologica (SEL) in Brno, Czech and Slovak Federal Republic, 4-9 September 1994. Lep Soc members with academic connections, who need formal invitations to justify travel, will be able to have them provided. Charles V. Covell, Jr. will serve as US agent for Lep Soc members wishing to join SEL.

Encumbrances of the office were then transferred by Ray Stanford to incoming President Paul A. Opler, who made a few brief remarks.

The meeting was adjourned at 11:52 a.m.

1993 Report of The Resolutions Committee

In July, nineteen hundred ninety three, Fort Collins was the place to be. The over two hundred people who came may never see a Lep Soc meeting the same.

After months of great preparations, by Paul, Boris, Deane, Ric, Karen, and Steve, The 44th annual Lepidopterists' Society meeting

is what they managed to conceive.
We thank Evi and Paul for Thursday night,
when they opened their home to us without fright.
And with all the food and drink Richard, Louise, Poodie, and Evi
supplied and prepared,
to mess up the place, nobody dared.

Friday was like a dream when the meeting got under way, thanks to the hard work of the local arrangements team of Boris, Amy, Pamela, Tracy, Scott, Dayna, Tom, and Kit, who saved the day.

We must not forget Rachel and Mike, who arranged the displays we all did like. And of course Hassan, the audio/visual master, who avoided any technical disaster.

The papers presented Friday were quite fine, and to all the presenters we express our gratitude.

Since Ernest, Boyce, Deane, Jackie, and Steve kept everything on time.

We thank them for their hard work and good attitude.

As Friday wore on

to the steak "cook-in" we were drawn.

Surely we all thank the staff at Colorado State University, for all our meals which showed great diversity.

Friday night's slide-fest was delightful, with sights and scenes from many lands.

And those who showed their favorites were not frightful, for the slides were safe in Boris' skillful hands.

Then it was off to the collection,

for the many who made a detailed inspection.

Of course we thank Tom Holtzer and Boris for their generosity, in opening CSU's collection to those with curiosity.

Not surprisingly, Saturday provided more fun, as more great paper presentations were made.

And when the exchange of scientific ideas was done, to the book signing by Paul, Charlie, and Bob went the parade.

Saturday's banquet was great, and the presidential address by Ray was quite fine. Of course, Charlie kept his annual date as he gave out the door prizes which were so divine.

As the final presentations were made on Sunday many participants kept in mind the NABA/Xerces butterfly count on Monday, wondering how many species they would find.

Further let it be resolved, to all those who were involved our sincere thanks

for putting this meeting at the top of the ranks.

And to those who gave such great door prizes, including books from Wedge, Oxford, Rinehart, Houghton-Mifflin, and Chapman & Hall,

we all express our gratitude of great sizes, although we know one person can't win them all.

As another year for the Society passed, we take time at last to thank those who for us worked so hard-

the Executive Council members who all went that extra yard:

Retiring executive council members: Karolis Bagdonas, Stephen J. Cary, and Stephanie McKown, Retiring vice presidents: M. Deane Bowers, Hiroshi Inoue, and Ian Kitching, Immediate past president, Floyd Preston, and retiring president, Ray Stanford.

To all those who helped, we are deeply indebted, for the great memories which in our heads are imbedded, that will long remind us of Fort Collins in ninety three, and our good friends who in Georgia we hope to see.

Respectfully submitted, Andrew D. Warren

Pacific Slope Section - Lep Soc

A <u>very</u> short meeting was held. Plans for the 1994 Pacific Slope meeting were discussed. See announcement under Forthcoming Meetings for details.

The 1993 John Adams Comstock Award The Man We Honor

John Warren Johnson by Lawrence H. Shaw Anaheim, California

The man we honor today John Warren Johnson is a truly remarkable individual. He is an outstanding biologist and botanist specializing in the study of Lepidoptera and their host plant relationships. His dedication and enthusiasm as a high school science teacher for 32 years encouraged several of us inside and outside his classroom.

John Warren Johnson was born on May 12, 1914 in Olinda, an area of northern Orange County, California. He grew up on a walnut grove in Anaheim, California. It was at a early age that John began collecting insects around his house. At age 11 he met a neighboring family that lived nearby and started a life long friendship with Erich C. Walter. John and Erich attended meetings of the Lorquin Entomological Society in Los Angeles. There they meet with Gene Gunder, Chris Henne, Janet Riddell, John Garth, Hal Newcome, Lloyd Martin, and John Adams Comstock. These people had great influences on John Johnson and Erich Walter and I am sure the experience was mutual.

John Johnson graduated from Fullerton Union High School in 1931. He received a B.S. Degree in Entomology from the College of Agriculture, U.C. Berkeley in 1938. Later, well into his teaching career, he was chosen by the National Science Foundation for a grant to further his education. The outcome was a M.A. Degree in Biology from C.S.U. in Humbolt in 1963.

John was married to Miss Ruth B. Daniell in 1948. She is retired from teaching mathematics in the Newport-Mesa Unified School District. She has always been a great encouragement to John, joining him on many collecting trips. The Johnson have three sons, two grandsons, and a granddaughter.

John had three jobs in his adult life. He worked for the C.C.C. San Bernardino National Forest, Death Valley National Monument, 1934-1935, the United States Bureau of Entomology, Division of Forest Insect Investigations, 1939-1942. The profession he feels proudest of is the teaching of science subjects in the Newport-Mesa Unified School District high schools from 1942-1974. It was here that John presented his teaching skills and enthusiasm that influenced many to seek science fields professionally or for life long avocations. Many of the people are well known to us (Ralph Wells, James Mori, Douglas Miller, Michael Erwin, Kenneth Denton, and Kathy Donahue). There are many of us who know John outside of the classroom as our teacher (James Wiseman, Ken Osborne, John Gruwell, David Hawks, and myself). John and his life-long friend and colleague, Erich Walter, were at least second generation pioneers in southern California Lepidopterology. They co-published several papers together on life histories and new species. Erich lived a long and productive life and passed away December of 1990 at the age of 87.

John donated his Lepidoptera collection, field notebooks, rearing

records, and photograph collection to the Natural History Museum of Los Angeles County in 1982. He had 7,540 specimens all meticulously curated. Many species were paratypes to those new species he had described. All southern California leps were well represented, but he concentrated on the Saturniidae and Noctuidae in the genus Catocala.

At the age of 22, he had his first article on butterflies published in Nature Magazine. John published 22 articles ranging in many areas of Lepidoptera study. He found working with the genus *Catocala* the most interesting, publishing seven articles on that group. He described two species of *Saturnia*. One species was named honoring his life long friend Erich Walter and his family (*Saturnia walterorum*). John is also a fine artist and photographer. His publications illustrate his talents for attention to detail (refer to publication list).

John had been honored by A.E. Brower with the naming of *Catocala johnsoniana*. In addition, former student Douglas Miller named a mealy bug after him (*Puto johnsoni*).

John Warren Johnson's greatest legacy are the thousands of students that have had him for their science/biology teacher. All of us can remember a favorite teacher that we had in high school. Mr. Johnson must have been that teacher for many students. His credo is "teaching the greater importance of people's understanding of the world around us and how we interact with it and each other is what biology is all about".

The Johnsons are currently living in Santa Barbara, California after leaving their home of many years in Corona del Mar, Orange County, California. They are in good health and spirits living near their two sons and grandchildren. Recently, Mr. Johnson asked if I could get him a fresh kill jar since he has an urge to do some local collecting.

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- Johnson, John W. 1985. The Immature Stages of six California Catocala

The day is late regarding legal restrictions on lepidopterists and it is rapidly growing later. Federal and state agencies have already listed a substantial number of "species/subspecies/local populations" of lepidoptera as "endangered" and the pace is quickening. It is reported that environmental/conservation organizations of the type originally responsible for the creation of the Endangered Species Act have recently joined forces in suing the USFWS and have won a settlement requiring the USFWS to add 400 more "species" of organisms to the "threatened/endangered" lists by 1995. A representative of the USFWS speaking at a conservation symposium at a recent meeting of the Kansas Entomological Society urged professionals in the audience to seek federal funds to be used in generating data supporting the listing of additional "species".

Unless some forthright and forceful action is soon taken to halt or reverse this trend, I am convinced that the situation can only deteriorate further. I see little likelihood that the current leadership of the Lepidopterists' Society is willing or able to take such action in the foreseeable future, hence the need for the kind of grass-roots initiative proposed above. The potential influence and effectiveness of this group will vary directly with its size. I urge all favorably disposed lepidopterists to notify me immediately of their support for this effort. The moment of truth has arrived and now is the time to stand up and be counted. I have recently been in touch with supportive groups in Utah and Kentucky and there is reason to hope and believe that such support will be widespread and that, working together, we can make a difference!

Secretary Resigns

An acute and severe lung infection made it impossible for me to perform my duties as Secretary of the Society for two months this past autumn. My now severely limited pulmonary reserve makes it unlikely that I will be able to perform in a timely fashion many of the duties of the office, particularly planning for the annual meeting of the Executive Council and participating in the Council meeting. I feel therefore, that I must necessarily retire from my position as Secretary.

Until a new Secretary can be identified and appointed by the President, to fill the balance of my term (through January 1995), I will endeavor to complete the business generated by the 1993 Executive Council meeting, and to respond to routine correspondence from members and the public. Assistant Secretary Julian Donahue (with a mere nine years of past experience!) will be handling new business and making preliminary preparations for the 1994 Council meeting.

In my five years as Secretary I have found the position to be what is probably the most rewarding in the Society, with its opportunities to participate in the growth and direction of the organization. Contact with the public has been particularly interesting. I greatly regret having to leave in midstream, and I wish to acknowledge with gratitude the support I have received from members and officers alike.

WE NEED A NEW SECRETARY! Please let me know the name of anyone you can suggest, and if you are interested yourself, please call me so that we can discuss the details of the position. Dave Winter, Secretary, 257 Common St., Dedham, MA 02026 Telephone: (617) 326-6053. Also see notice on page 117.

Donors

The Lepidopterists' Society sincerely thanks those persons who help support the Society by becoming sustaining members. As in the past, sustaining members will continue to be recognized in the biennial membership list which was NEWS #6 of 1992 and will be NEWS #6 1994.

Some members of The Lepidopterists' Society who have not chosen the Sustaining Membership category contribute money to the Society above and beyond their dues. In sincere thanks and recognition, their names are printed below.

\$1 - \$9: Thomas L. Ashby, Jr., Sarah Babcock, Charles J. DeRoller, Eliav Shney-Dor, John P. Knudsen, Takeshi Kuzuya, J. Kevin Leonard, Jamieson C. Little, Wasryk Nazary, Lonnie E. Olsen, Riddle, Keven Wachowiak, Ernest H. Williams, Michael E. Young.

\$10 - \$24: Bob Borth, Lin Chih Cheng, Horatio T. Enterline, Edward Fuller, Leroy C. Koehn, Larry J. Kopp, Benjamin H. Landing, George C. Leslie, Jr., Fumio Nagasaki, Mogens C. Nielsen, Frederick H. Rindge, Viola N. Stallings,

\$25 - \$49: Robert C. Busby, Gary Collier, Duncan Robertson, Frances C. Welden

\$50 - \$99: Milt Taylor, Claude Lemaire

\$100 - \$249: Stephanie McKown

\$250 - \$500: Jacqueline Miller

4th Annual Meeting of the High Country Lepidopterists

The 4th annual meeting of the High Country Lepidopterists was held 18 September 1993 at the University of Wyoming, in Laramie. Following an open house in the Entomology Department the afternoon program included the following topics:

Development of Atlases for Western Moths.

Paul A. Opler, U.S. Fish & Wildlife Service, Ft. Collins, CO.

Hybridization of Lepidoptera.

Richard S. Peigler, Denver Museum of Natural History, Denver, CO.

Observations on an Undescribed Species of Gazoryctra.

Leslie D. Price, University of Wyoming, Laramie, WY.

Update on Colias pseudochristina in Elmore Co., Idaho.
Clifford D. Ferris, University of Wyoming, Laramie, WY.

Status of Colorado Eastern Plains Butterfly Studies, 1993. Ray E. Stanford, Denver, CO.

A business meeting, informal slide show and dinner and door prizes concluded the meeting.

A Message From the Society President

Paul Opler Office of Information Transfer National Biological Survey 1201 Oak Ridge Drive, Suite 200 Fort Collins, Colorado 80525-5589

The last two years have been difficult ones for many members of the Lepidopterists' Society. Wildlife laws that include insects that had never been enforced were being enforced. Society members were being visited by Fish and Wildlife Service law enforcement agents, and many rumors -- both true and untrue -- were being circulated with great rapidity. I, a Fish and Wildlife Service official, had been nominated and elected president, and some Society members felt that I should resign because of a perceived conflict of interest. What is the true situation? What should our Society members believe? Should we all stop collecting butterflies?

As with any crises and the attendant rumors, the true situation is seldom as serious as we might be led to believe. I will try to dispel some rumors here, and let Society members know what the actual situation might be.

Wildlife Laws - There are many laws that pertain to wildlife and that include insects among the applicable species. These laws pertain at the local, state, federal, or international levels. Many of these laws have existed for a long time and it should not be new to anyone that there are prohibitions against any sort of collecting without a permit in certain parks, refuges, or reserves. Most of us also know that there are butterfly and moth species protected by the Endangered Species Act and the Convention on International Trades in Endangered Species of Wild Fauna and Flora (CITES). Both of these laws were nicely summarized in an earlier issue of the NEWS.

What was not known by most of us was the Lacey Act and its application to insect collecting. Basically, if a person collects in violation of another country's wildlife law and then brings illegally collected material into the United States or collects in violation of a state or federal law then the person may have violated the Lacey Act.

<u>Enforcement Activities</u> - Several Lepidopterists, both within and outside our Society are being investigated for violation of wildlife laws. The alleged violations are flagrant and would not be condoned by most reasonable persons. Many other persons, mainly Society members, are being visited by law enforcement agents in the course of these investigations. These Society members are not being "raided" but are being solicited for relevant information that relates to the cases. When these investigations are complete the circumstances surrounding them will become apparent to our members.

Responsibilities of Society Members - First and foremost each of us is responsible for being aware of the applicable laws and adhering to their requirements -- no matter how unreasonable they may seem. We should always inquire if a permit is required when we wish to collect in a park, refuge, preserve, or in another country, and we should obtain the applicable permits in writing. Be aware that most permit granting agencies are bureaucratic and that we should begin our permit request letters several months in advance. In other cases, we may be able to obtain permission very quickly with a phone call, but we should always request a written response. Finding out about foreign laws and permit requirements is especially difficult, and I suggest writing or phoning the Management Authority, U.S. Fish and Wildlife Service, Washington, D.C. (703) 358-2093. The Management Authority can provide information about U.S. and foreign wildlife laws and lists of protected species. They can also provide details on permit requirements.

If we feel that the applicable laws are unreasonable and should not be

applied to insects, then we should become active with local, state, or Federal representatives and we should suggest alternatives to them. If we feel that law enforcement agents have behaved inappropriately or taken improper actions then we should inform their superiors. Remember that law enforcement agents are only enforcing laws that were passed by the officials that we elected. Usually, the enforcement activity is in response to complaints that may have been made by our own Society members.

Where do we go from here - There is absolutely no reason for any of us to believe that collecting insects is not a legitimate activity. We should all plan to continue our legitimate activities and make our contributions to knowledge as we always have. If our purpose is solely to amass a collection, then we should modify our goals so as not to include species or subspecies found solely on protected lands. Adhere to our Society's collecting policy in both legal and moral particulars. Some of us, particularly amateurs seeking to expand their personal collections, will probably not be able to have access to most parks and preserves, because enhancing private Collections is not one of their usual goals. On the other hand, based on my personal experience our Society's advanced amateurs who contribute to faunal studies would have an excellent chance to obtain permission to conduct sampling studies in state parks, national parks, national wildlife refuges, and nature preserves.

Idalians Meet

from the Newsletter of the Idalia Society of Mid-American Lepidopterists

The Idalia Society of Mid-American Lepidopterists met on Saturday December 4th for a potluck, program and raffle. Idalians enjoyed the presentation, "The Inner Space of the Insect", presented by electron microscopist, Joseph R. Thomasson, Plants and Botany Teacher with the Fort Hays State University, Hays, Kansas.

Suzette Slocomb's first-grade class was featured in a front page article of the Kansas City Star. Influenced by Suzette, Idalia Society Secretary and Lepidopterists Society member, the students were among hundred of volunteers from across the country capturing and tagging monarchs in the effort to track the fall migration of the butterfly.

The Idalians are a group of people who enjoy all aspects of lepidopterology. They get together on field trips, at regular meetings and annual picnics. Dues are \$5.00/family or \$3.00/student yearly. Anyone interested in joining The Idalia Society should write to The Idalia Society, P.O. Box 30301, Kansas City, MO 64112-3301.

Dues Notices Were Mailed in November.

Prompt payment of dues will ensure a continued flow of publications.

OPINION

A Rejoinder Rejoined:
Conservation, Collecting and the Role of Our Society

John A. Shuey Indianapolis, IN

Mr. Ziegler's recent rejoinder (Lepid. News, No. 3 1993, pg 83-85) requires a few clarifications to correct misstatements of fact and misinterpretations of my original commentary (Lepid. News, No.1 1993). In essence, I stand firmly behind my initial argument (as does Mr. Ziegler with his argument), and I will not restate my case at this time. I will however, correct selected critical issues for the record (presented in the order they appear in Mr. Ziegler's Rejoinder).

- My association with Battelle Great Lakes Environmental Center (GLEC) in no way influences my views toward biodiversity issues. GLEC was operated by The Battelle Memorial Institute, a non-profit research organization dedicated to performing "research for the benefit of mankind". Battelle's annual research budget is hardly influenced by endangered species research, and the few thousand dollars spent on endangered species research at our facility equates to less than 0.01% of the annual environmental research program. GLEC has since departed Battelle, and I from GLEC. (paragraph 1)
- While the media has indeed portrayed the Mitchell Satyr issue in southern Michigan as a "snail darter/spotted owl" issue, the simple fact remains that re-routing the proposed highway around this unique fen could be accomplished for as little as a 5-10% increase in the total project budget. Our study firmly recommended that the proposed highway avoid disturbing this ecosystem. (paragraph 1)
- I originally stated that "the Endangered Species Act and similar state statutes are the only tools available for ensuring the continued survival of many species that require active habitat preservation and management" but I would never imply that "uncritical support of the ESA in its current form is a litmus test" of any type: I would fail this test. The Endangered Species Act has many shortcoming, most obviously the lack of a clear cut mechanism for protecting supporting ecosystems rather than individual species. These shortcomings do not negate the truth of my original statement. Mr. Ziegler would have us entirely eliminate the only tool available because "the proof of pudding is in the eating". (which I interpret to imply that no species should not be consumable by collectors). I would reply, that you simply can't have your cake, and eat it too (no matter how frustrating this may be to many people). (paragraphs 2 and
- I do not propose that our society "passively accepts the current attacks on our vital interests", but rather I stated that only by "taking an active and proactive role on conservation issues can our Society hope to guide the development of future federal and state biodiversity policies towards routes that blend our interests with future conservation practices."
 The entire gist of my original essay was that we cannot do

nothing! (paragraph 8)

No refereed paper has ever demonstrated that "calculated attempts to eliminate local populations of a bee and a butterfly in intensive collecting in the course of experimental population studies actually had the opposite effect." Rather, these studies demonstrated for the species studied, that density independent mortality plays a larger role than does density dependant mortality (= collecting of adults) in regulating population dynamics. No logical argument can ever be presented that under natural conditions, artificially increased mortality of any butterfly life stage enhances the survival potential of a population. (paragraph 8)

To recap my position on collecting, I honestly believe that collecting a butterfly is no different than swatting a mosquito or stepping on a cockroach. However, I would firmly stand behind efforts to protect an endangered mosquito or cockroach species. Likewise, I feel that given their keen interest in natural history, lepidopterists should especially respect efforts to preserve imperiled species. To blindly endorse collecting of all species, including critically endangered taxa, in the tradition of "W.H. Edwards, S.H. Scudder" and "W.J. Holland" is the equivalent to adhering to the wildlife management philosophy of their historical contemporary, 'Buffalo Bill Cody.' Times have changed: its time for our Society to do so also.

Opler Addresses International Symposium

An international symposium organized by Butterfly Conservation was held at Keele University (England) from 10 - 12 September 1993. Paul Opler, President-elect of the Lepidopterists' Society presented a paper entitled "Conservation of Butterfly Diversity in North America". Information on butterfly diversity patterns was presented demonstrating that vast areas of the continent are relatively depauperate, while some regions are especially species-rich. Opler utilized "gap analysis", pioneered by Robert Michael Pyle, matching land use and ownership patterns with clusters of endemic species to determine the regions which should have highest priority for land acquisition, management, or restoration. Ecosystems with regional endemicity that should have high priority for conservation action include (1) tall-grass prairies of the upper Great Plains, (2) southeastern swamp forests, (3) South Texas, (4) Florida Keys, (5) southern California coast, and (6) southern Rocky Mountains in Colorado.

A symposium proceedings will be published in the spring by Chapman - Hall.

Kentucky Lepidopterists Field Trip

Twenty-eight members of the Society of Kentucky Lepidopterists converged on the town of Fulton, Kentucky, in the Commonwealth's western-most county on the weekend of September 10-12, 1993. The focus of attention was a cypress swamp drained by the Little Bayou de Chien, and also the east bank of the Mississippi River at nearby Hickman. Differing slightly from times past, the group included more young people and non-collecting butterfly fanciers. Including species seen on the way from Louisville, KY, Charlie Covell reported 56 butterflies in all. Among these were Amblyscirtes aesculapius, Panaquina ocola, Poanes yehl, Euphyes dion, Zerene cesonia, Phoebis sennae, Eurema nicippe and lisa, possibly P. agarithe sighted, the first Boloria bellona for

western Kentucky, and the 4 large satyrs, Enodia anthedon, E. portlandia missarkae and E. creola and Satyrodes appalachia.

The highlight was capture of a hybrid viceroy X red-spotted purple ("rubidus") at Hickman by R.V. Gregg. Previously at this locality, another of these hybrids had been collected in 1981, and in 1989 Covell observed and photographed a male red-spotted purple and a female viceroy en copula.

Moths from the swamp included *Scopula cacuminaria* and *Pero zallisaria* (Geometridae); *Eumorpha fasciata* (Sphingidae); *Papaipema* spp., and *Parapamea buffaloensis* (Noctuidae).

The Kentucky Lepidopterists' is a group of people who all enjoy lepidoptera in one form or another. Collectors, gardeners, watchers, photographers and general nature lovers. Anyone interested in joining the Kentucky Lepidopterists for field trips, meetings, a newsletter, comraderie and fun....dues are a paltry \$5. For this bargain contact Charlie Covell, Department of Biology, University of Louisville, Louisville, Kentucky 40292.

Butterfly Travelers

by Bruce Duncan Sandy, Utah

In Northern Utah, during the spring of 1992, we experienced an endless migration of the beautiful Painted lady butterfly. This journey began in early April and lasted until the middle of May. The phenomen was observed in all parts of Utah and Idaho with millions of butterflies dancing around and over all barriers in a seemingly carefree manner. Our yard was full of the ladies for may weeks. The buckthorn bushes were in full bloom and were very attractive to the travelers who were in need of refueling. This brought to mind several other migrations I have witnessed.

...A few years ago we had a similar deluge of this species. At that time I was engaged in agricultural research for Del Monte Foods in the Mountain States Division. Our growers in the Burley, Idaho area had several hundred acres of peas for canning which were infested with Canada thistle in early stages of development. At maturity, the thistle produces small round seeds similar to peas in size and color which present a contamination problem at canning time. These fields, which should nave been treated for weed control before planting, were in danger of being abandoned because of the thistle.

The swarms of painted ladies present that year oviposited on the thistle, but not on the pea plants, and the subsequent larvae destroyed the weeds before they could produce seeds. Thus, about 450 acres of peas were saved by the butterfly larvae!

....Some years before my retirement, I had the good fortune of observing the annual (October) migration of the Monarch butterflies on our large (DelMonte) spinach farm near Crystal City, Texas. Several large mesquite trees near our farm office would fill up with monarchs by six o'clock each evening. They remained nearly motionless all night and by nine o'clock in the morning were regrouping for their continued flight to nearby Mexico for their winter hibernation. By late afternoon more of the butterflies were arriving and the trees were filled again by evening.

...I also witnessed a migration of a large, very colorful diurnal moth in the Spring of 1942. I had traveled from Jamaica to Panama on a banana boat, arriving to assume my duties with a malaria and epidemic control unit with the U.S. Navy at Balboa. We were anchored in the Bay of Panama awaiting a boat to shore when I noticed the migration.

Swarms of a large brilliant, iridescent green diurnal moth of the genus

Urania were flying across the bay, filling the sky. Many were resting on all parts of the boat and on our heads and shoulders. Where they were going, I didn't know. It was a spectacular happening and a wonderful welcoming committee to the tropics!

Rare Butterfly Strays and Outlanders

by Harry Pavulaan Rockville, MD

Having read Jeffrey Glassberg's interesting article on *Aglais urticae* in North America (J. Lep. Soc. 46:302 -304), prompted me to search through my notes to turn up three unusual, and little-known historical records from the northeast. The following two appear in an unpublished Harvard University thesis written by Donald Wells Farquhar in 1934. Quotations are taken directly from the thesis:

Aglais urticae - "Mr. Outram Bangs took a specimen of this species on the wing in Watertown -- a stray introduction". The locality is in Massachusetts. The date was not given, but must have occurred in or before 1934. Further evidence that the species has appeared on this continent before.

Anartia jatrophae - "A single specimen was captured by Mr. Low on Atlantic Avenue in Boston, June 29, 1901. Probably introduced in a shipment of produce from the tropics".

The third outlander originated from the collection of F.E. Gray, and resided in the Brown University collection in Providence, R.I.. The collection was recently moved to the Yale Peabody Museum in New Haven, Connecticut. The record was reported to me by Dr. Charles Remington, who felt the specimen may be authentic. The data comes from the specimen label:

Pieris brassicae - "Locality: Rhode Island 1893". The specimen is reported to be a female. It would be interesting to know if a small breeding population had occurred at the time, as a result of an accidental introduction in the area, but insufficiently low in number to become established (the species is reportedly established in Chile). Obviously no sightings have been reported during the extensive 1983-84 Rhode Island butterfly survey, nor since.

Saving Butterflies by Killing Butterflies? ... NABA Responds

by Jeffrey Glassberg, President of NABA

"Thank you for publishing the informative and thoughtful article by Larry Orsak (NEWS Lepid. Soc. No. 3 May/June 1993). The article highlights the need to balance, in any particular context, the deleterious effects of killing butterflies (certainly deleterious for the particular butterflies killed) against the benefits.

The North American Butterfly Association, Inc. (NABA) is a newly formed organization whose mission is primarily non-consumptive recreational and educational butterflying. The Board of Directors of NABA has adopted a policy statement concerning collection: Collecting butterflies is not included among the purposes of NABA but NABA is not in opposition to other groups for which this may be a legitimate purpose.

Larry Orsak makes a persuasive case for butterfly ranching in developing countries where this approach may be the one of the short-term methods for encouraging conservation of habitat critical for butterfly survival. Assuming that this is true, all those truly interested in butterflies should support ranching butterflies under these conditions. On the other hand, maintaining that it is always, under any circumstances, acceptable to kill butterflies, is just as unreasonable. The key is to balance costs against benefits.



This column is dedicated to sharing ideas and techniques on any aspect of lepidopterology. Please send anything you feel our readers would enjoy to me at Department of Biology, University of Louisville, Louisville, KY 40292-0001.

Labels for your collection:

In 1950 I was just beginning my collection of butterflies, and my 3 friends in Southern Pines, North Carolina who were helping me get started did not have the benefit of guidance from an experienced and scientifically oriented lepidopterist. That summer I was fortunate to be invited by Mr. William D. Field, curator of butterflies at the U.S. National Museum of Natural History, to come into the office area to see the butterflies, as none were on display. He encouraged me to label my specimens with locality, date, and my name as collector. He pointed out that a specimen without such data is scientifically worthless. From that day on I have labelled my specimens.

There are a few very important points to remember regarding these labels. First they must be printed on a stiff paper (70 substance or similar) that contains a high rag or cotton content (at least 25%). The reason for this is to make them durable. My first labels were on index card, which has no cotton or rag content - only pulpwood. This material will become brittle and break apart easily later on, when handled. Also, such card tends to get brownish over the years.

The words must be printed in durable ink. This usually means black India ink, which is permanent. Again, ballpoint pen ink tends to fade or disappear over the years. That has happened with some of my first 1950 labels which I made on notebook paper wih blue ballpoint pen. Only the indentation of the words on the paper is legible in some cases. (These labels were supplemented by proper labels later; I keep the paper ones out of nostalgia!).

The bare minimum of information on a label should include the locality, the date and the collector (See Figure 1). Make letters and numbers clear and legible. Months may be abbreviated, but if using all numbers for a date, use Roman numerals for the month to avoid confusion with the day in the date. The labels must next be trimmed so that there is a tiny margin around the writing, but no large amount of "selvage". No barn door labels, please! In a collection, large labels can damage other specimens when the specimens are being moved in tight quarters.

Louisville, KY Jefferson Co. Oct. 29, 1993 C. V. Covell Jr.

Fig. 1.: Penned locality label

Another minor point: place the pin through the middle of the label (to save space again), and be sure the pin does not pierce the letter of an important word, or a number indicating the date. I have had to guess at dates on old museum specimens when the pins were pushed through the number.

Push the label up the pin with a 3-step pinning block or equivalent. A collection looks good if the labels are pretty uniform in height and on straight (position them so you can read the label by "looking over the shoulder" of the spread specimen). If you put 2 or more labels on the pin under a specimen, be sure to leave space between them so

they can be read without removal. Normally an identification or determination label is placed below the collecting data label(s). This one may be a little larger than the data label, but still should not be too large.

Labels with names of genus and species are referred to as "determination labels," or "det. labels." (See Figure 2.). Normally they have the genus name, the species name, name of the author of the species name, and, at the bottom a line with "Det. (your name) (date of determination)". The date of determination is important because names can change, and you may wish to know when it was identified.

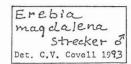


Fig. 2: Determination label

Blank labels can be purchased in several sizes, with black borders printed on them, from several sources, especially BioQuip Products and Ward's Natural Sicence Establishment. If you have many specimens from one locality, printed labels are the answer (See Figure 3.). If an appropriate space is left for the date, the labels can be used for specimens collected at a future date. You can have them printed for you by BioQuip, Insect Museum Supply, and other suppliers. Or you can set up a computer program and print them out on appropriate cardstock with a laser postscript printer. Many word processing programs can provide labels in appropriately low number type (such as 5 point), and tests show that laser printers can do a satisfactory job with durable results. Cardstock can be purchase from a stationer.



Fig. 3: Printed label, date added

Dave Winter offers the following...

Comments on Annette Aiello's "Very Good Rearing Flask."

The flask described on page 58 of the 1993 NEWS is indeed "very good", and a year's productive experience in using it had led to two variations not mentioned in the original article.

- 1. Instead of cutting the upper half of the flask just below the "shoulder" (as in the author's figure 4), it can be cut about ½" above the black base, near the lower limit of the cylindrical part of the bottle. When assembled as in fig. 5, about 4" of additional height is gained an increase in capacity of over 25% accomodating a significantly larger sprig of food plant. If there is a reason to want to reduce the amount of light reaching the flask, this extended flask still fits under an inverted paper grocery bag.
- 2. The article gives several suggestions for maintaining humidity, but reducing humidity is often equally important, to deal with the moisture transpired by the plant and expired by rapidly matabolizing larvae. By replacing the bottle cap with a small square of netting, excess humidity readily escapes. A small rubber band with a figure 8 knot tied in the middle gives a secure closure with a "handle " for easy removal.

Now, if for you the sky is the limit, why not cut the bottom from some of the lower sections, to produce a number of open-ended cylinders? You could then assemble 1 upon 2 upon 3...ad infinitum!



The Society has recently been informed of the following members deaths:

William Hammer...

of San Leandro, California died of cancer on 15 September 1993. He was a Charter Member of the Society, having joined in 1947.

L.W. Harris...

of Lima, Peru died recently. Harris first joined the Society in 1961 and was intermittently active for a total of 25 years, including a "Retired" tenure granted on 1 September 1989.

Erwin A. Froemel...

life long resident of Columbus, Nebraska died 2 April 1993 at the age of 79. He was a past member of the Society and will be sadly missed by all of the Nebraska collectors who had the privelege of meeting him and listening to his interesting stories. A jeweler and watchmaker in the family business (Froemel Jewelry), he had been a staff sergeant in the Army and Air Force during WWII. His hobbies included fishing, gardening, stamp collecting and insect collecting. During his lifetime, Erwin amassed a large collection of Lepidoptera, mostly from the Columbus area. He specialized in Catocala and Sphingidae, many of which he collected in a walk-in light trap he constructed. Erwin also collected butterflies and had rare Nebraska examples of taxa such as Lycaena phlaeas americana, Phyciodes phaon, and a hybrid Limenitis a. astyanax X L. archippus ("rubida"). State record butterflies included Paramidea midea and possibly Marpesia petreus. Erwin was a perfectionist when it came to spreading Lepidoptera; this was evident by every perfectly positioned wing and antenna in the collection. His entire collection of 4,000+ specimens was given to the University of Nebraska State Museum in Lincoln.

Dr. John S. Garth...

Curator Emeritus of the Allan Hancock Foundation, University of Southern California, Los Angeles, 3 October 1909 - 18 October 1993. Dr. Garth, a Crustacea specialist best known to us as the author of works on the butterflies of Grand Canyon and Yosemite National Parks, had been a member of the Society since 1979.

Announcements and Notices



LOST MEMBERS

Ross Socolof, Bradenton, Florida (Journal returned).

Prof. Maria Etcheverry of Santiago, Chile: recent mail to this long-time member has been returned.

HELP!

Society Secretary Dave Winter is resigning his office for health reasons. The Secretary is one of the Society's most important officers; the person in this office provides the continuity and glue that hold the Society together. Potential volunteers may contact, and names of

possible candidates may be sent to, Assistant Secretary Julian P. Donahue (Natural History Museum, 900 Exposition Blvd., Los Angeles, CA 90007-4057; phone (213) 744-3364, FAX (213) 746-2999). Donahue will be responsible for urgent mandatory activities (e.g., ballots and dues notices), but routine correspondence and the niceties we have come to expect and appreciate from Dave will be neglected until a replacement can be found.

ICZN

The following opinion was published on 17 December 1992 in Vol. 49, Part 4 of the <u>Bulletin of Zoological Nomenclature</u>.

Opinion 1698. <u>Brahmea</u> Walker, 1855 (Insecta, Lepidoptera): <u>Bombyx certhia</u> Fabricius, 1793 confirmed as the type species.

CORRECTION

From Larry Orsak...In the article "Killing Butterflies to Save Butterflies....Each birdwing specimen exported from PNG (or anywhere else) will <u>not</u> have its own, separate CITES sticker, as stated. Instead, CITES permits and associated stickers are issued for the consignment as-a-whole. Thus, Lep Soc members buying legitimately exported birdwings probably would not receive an original CITES sticker, but could get a photocopy of the CITES permit/stickers that accompanied the shipment of which their specimen was a part.

Venezuela Natural History Tour

A Natural History Tour to Venezuela, escorted by lepidopterist Julian Donahue and botanist Bob Gustafson, will take place February 14-28, 1994. Participants will visit three national parks (including the Lepidoptera paradise of Rancho Grande), Hacienda Tropicale, and Hato Pinero, including most major habitat types: Andean paramo via a ride on the world's longest cablecar, llano grasslands, rain forest, and cloud forest. (Note: this is a study tour, definitely not a collecting trip, devoted to observation and photography, emphasizing tropical ecology, insects, plants, birds, and mammals.) \$3,070 per person, double occupancy, includes round trip air fare from Los Angeles, lodging, transportation, most meals, and a \$300 tax-deductible charitable contribution to the Natural History Museum of Los Angeles County. Optional extension to Angel Falls includes a flight over tepuis. More info toll free from Geostar Travel, 1-800-624-6633.

Last Chance for Clench Award Sale!

The Lepidopterists' Society is attempting to establish a permanent endowment to fund the Harry K. Clench Award for the best student paper delivered at the annual meeting of the society. To raise money for this worthy cause, various entertaining, informative, rare, valuable, and otherwise interesting books, periodicals and other publications on Lepidoptera have been donated to the society for purposes of selling to all persons with a wholesome passion for moths, butterflies, caterpillars, and their kind. If you would like to receive a list...do not delay...immediately contact John Rawlins at the Carnegie Museum of Natural History (412) 622-8837.

An Easy Way to Join the Societas Europaea Lepidopterologica

I am inviting you to join SEL - the European counterpart to the Lepidopterists' Society. The Societas Europaea Lepidopterologica was founded in 1976 "to further closer collaboration among Lepidopterists worldwide, especially among those in Europe; to support scientific

work and nature conservation in the field of Lepidopterology; to produce its own publications; and to hold every two years a Congress of Lepidopterology."

Members receive a *Nota Lepidopterologica*, a quarterly journal covering the whole field of lepidopterology. Articles are published in English, French and German. The *News* appears irregularly, providing an exchange of information among Societas members. A *Membership List*, giving addresses and special interests of the members; and *Bibliographia Europaea Lepidopterologica*, a yearly bibliography of the newest literature in the field of Lepidopterology. A strong contingent of SEL attended our Ft. Collins Annual Meeting last July to get acquainted and to encourage North American lepidopterists to join their Society. The group consisted of Emilio Balletto (President), Kauri Mikkola (Vice President), Michael Fibiger (Council member), and Victor Sarto y Monteys (Council member). They also urged us to attend their biennial Congress to be held in Brno, Czechoslovakia in September, 1994.

Dues for membership outside Europe are DEM (Deutschmarkes) 50, with an extra DEM 5 initiation fee. Since payment would have to be to the Treasurer in DM, and a fee is normally charged by banks to make international checks (\$10 at my bank), I agreed to act as a North American agent and collect dues from prospective members in US \$\$, then send combined dues on behalf of all members to minimize exchange expenses. If you wish to join for 1994, please send your dues in US dollars before March 31, 1994. The adjusting for fluctuations in currency amount is estimated at \$33 (air mailed publications, \$43) including initiation fee. If you are already a member, subtract \$3 from those figures.

Make checks payable to Charles Covell for SEL, and mail to me at: Department of Biology, University of Louisville, Louisville, KY 40292-0001. Membership is acceptable from any country as long a dollars are used. I will post your membership to the Treasurer as soon as I receive payment. If you wish to pay dues directly, send them in DM (65 for initial membership) to: Manfred Sommerer, Treasurer, Volpinistrasse 72, D-80638 Munich, GERMANY. Dues can also be paid through such agencies as SWETS and FAXON, but SEL loses some funds that way.

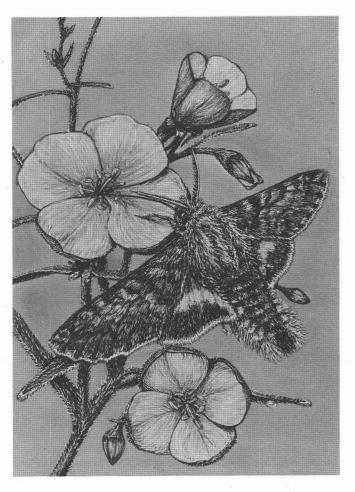
With respect to air mail delivery of publication to the U.S. and Canada, Mr. Sommerer informs me that this has been available for an additional DEM 15 (\$9.00) but should be raised soon because Belgium, where publications are printed, has greatly increased airmail rates abroad. British Lepidopterists' Society members can remit to the SEL agent there: Barry Goater, 22 Reddings Ave., Bushey, Herts. WD4 3PB, England. Contact him for amount in pounds sterling.

Swedish Amber Museum Loans Out Material.

The Swedish Amber Museum at Kämpinge Fiskeläge is a small private amber museum which has a unique collection of inclusions in amber. On exhibit this summer were inclusions portraying 30-40 million year old "frozen stories". Some with insects trapped in sticky resin during their mating act, others showing behavior...ants transporting eggs or carrying away trapped prey; insects caught by spiders, sometimes wrapped in cobwebs; microscopic arthropods on rotting leaves; fungi growing on dead material; pollen falling out from the anthers of a flower; small mites attacking a beetle; an aquatic larva somehow trapped above the surface...and many more. An entire larva, which fell out of its tomb in amber was given to Dr. George Poinar at the University of California, Berkeley. It is pictured in his 1992 book "Life in Amber".

Many of the specimens have been on exhibit in the "Jurassic Park" exhibition at the Academy of Sciences in Philadelphia. The Swedish

Amber Museum has more material to offer to museums, institutes or organizations interested in borrowing it for exhibitions or scientific purposes. For more information contact Swedish Amber Museum; Mariav. 4; S - 236 35 Höllviken; Sweden. Telephone +46-40-454504. FAX =46-40-450861.



California's 1993 Wildlife Preservation Stamp Features Sphingid.

California's 1993 wildlife preservation stamp (pictured above) --featuring a Kern primrose sphinx moth (Euproserpinus euterpe Edwards) and its hostplant painted by artist Mark A. Klinger -- will be on sale through December 31, 1993. Stamps can be purchased for \$9.50 by mail or at Department of Fish and Game offices in Sacramento, Redding, Rancho Cordova, Yountville, Fresno and Long Beach. The painting, selected through the second annual native species stamp art contest among more than 80 entries, was chosen because of its great detail and biological accuracy, excellent composition, and rarity of the species depicted. On the selection of his subject, Klinger said: "I have always hoped to do art work which depicts the beauty of little-known species. By choosing a moth thought to be extinct since the early 19th century, and rediscovered in the early 70s, I was able to draw on all my years of experience with insect science and my interest in depicting an endangered moth species with an endangered plant."

A member of the Guild of Natural Scientific Illustrators and a member of the Lepidopterists' Society, Klinger is currently a scientific preparator in the Section of Invertebrate Zoology at the Carnegie Museum of Natural History in Pittsburgh, Pennsylvania.

The Kern primrose sphinx moth (Euproserpinus euterpe Edwards), originally described as a new species in 1888, only occurs in a single localized colony in Kern County California. The exact source of the original specimens remained a mystery, and intensive efforts to find additional specimens proved fruitless until the moth was rediscoverd in 1974 by the late Chris Henne, an amateur entomologist from Pearblossom, California.

The moth has only one generation per year: the diurnal adult moths fly during March, when they mate and lay their eggs on the larval foodplant -- an annual species of evening primrose (*Camissonia contorta*); the mature caterpillar burrows into the soil to pupate, where it remains until it emerges as an adult moth the following spring.

The Kern primrose sphinx moth has not been seen since the last known specimen was captured in 1979. Further collecting of this moth has been prohibited since 1980, when it was placed on the Federal list of threatened species.

The purchase of California Native Species Stamps is a way for all wildlife supporters, stamp collectors and art enthusiasts to show their support for the Department's wildlife conservation efforts. Stamp sales have become a major revenue source for the California Wildlife Campaign, designed to generate funds for wildlife support programs throughout the 575,000 acres managed by the Department.

Also available for sale is a First Day of Issue cancelled souvenir envelope retailing at \$13.90. \blacksquare

Stamp collectors can order the 1993 stamp by sending a check or money order to the Department's License and Revenue Branch, 3211 "S" Street, Sacramento, CA 95816. Remaining stamps will not be sold after December 31, 1993. Cancelled envelopes will be available until stock is depleted. For more information, call Monique Born, at (916) 653-4776.

Caribbean Wildlife Surveys Jamaica - 1994

Volunteers are needed to assist with moth and butterfly surveys to be held Jan 15-22; Feb 19-26; Mar 12-19, 1994. CWS keeps only voucher specimens as needed. \$1325 covers all survey expenditures. To apply call (800) 797-0466. Caribbean Wildlife Surveys, 2321 State Road 580, Suite 5, Clearwater, FL 34623-1134.

Stamp Collectors!! Lep Covers Almost Sold Out!!!

The last remaining covers from the 44th annual meeting can be obtained by writing to: Bob Belmont, P.O. Box 2626, Naples, FL 33939. Cacheted envelopes are \$1 each. Cacheted envelopes with the meeting cancellation are \$2 each. A set of 5 cacheted envelopes each with one of the 5 new flower stamps and the show cancel is \$8. Send your own private cover for a show cancel at \$1 per cancel. Make your check out to the THE LEPIDOPTERISTS' SOCIETY. These covers were produced to benefit the Society, so please order today for a truly interesting lep conversation piece.

Philatelic Lepidopterists of America

Are you interested in lepidoptera on stamps? If so you may be interested in this group. Dues are \$10/year. for more information contact Charlie Covell, Department of Biology, University of Louisville, Louisville, Kentucky 40292-001.

Immigrant Insects and Arachnids: Fauna, Pathways and Impacts

You are invited to participate in a project seeking to gather information on the immigrant arthropods of North America. The goals of this project are: 1) to determine the current status of non-indigenous insects and arachnids in North America; 2) to determine distribution, pathways, and economic/environmental impacts caused by the introduction and spread of non-indigenous arthropods in North America; 3) to compile information on immigrant insects and arachnids and develop a database compatible with the NAIAD (North American Immigrant Arthropod Database).

The development of this database is funded by the National Biological Control Institute (NBCI), USDA/APHIS. The database will be merged with the North American Immigrant Arthropod Database/Western Hemisphere Immigrant Arthropod Database (NAIAD/WHIAD). When completed, it will be available to researchers and the scientific community and will be useful for many applications.

In order to best accomplish this task, participation of all entomologists is encouraged. Documented information, specimens or published records, on immigrant species of insects or arachnids that you have worked on are examples of the kind of data they are seeking. Based on the results of this project, a symposium on immigrant insects and arachnids is projected for 1995.

If you are interested in participating in this project or the conference please contact: J. Slusark (NBCI Project), The Pennsylvania State University, Department of Entomology, 501 ASI Building, University Park, PA 16802 USA. phone (814) 863-2865 FAX (814) 865-3048.

Available by Request: Copies of CITES handout and 1992 "Animal Notice of Review"

Copies of the CITES handout and copies of the 1992 "Animal Notice of Review" for possible E & T species listings that includes Lepidoptera candidates are available by request. Contact Paul Opler, US Fish and Wildlife Service, Office of Information Transfer, 1201 Oak Ridge Drive, suite 200, Fort Collins, CO 80525-5589.

Yes folks, it's that time of year again. Those of you who are interested can read on, the rest of you can skip the next 15 inches because we are about to discuss...

The Season Summary

Has anyone done any collecting this year? For those of you who have been collecting, and want to share your exciting discoveries....this is the article for you!

The Season Summary is a compilation of collecting records from the past year (1993). These records are sent in by Lep Soc members to their respective zone coordinators. The zone coordinators are supposed to sift through this data and select the records that are truly meaningful and then submit it to the Editor of the NEWS. Read on for definition of "record" and format required.

Instructions to Contributors

Format: type double-spaced, one side of paper only; please list, rather than writing a narrative; use separate sheet for each state.

What to report: species of <u>unusual occurrence</u> with regard to any of the following: geography, flight season, altitude, numbers; migrations; new food-plant observations; unusual behavior; aberrations. Contributors should be able to defend accuracy of determinations, and assertions re: county records, etc.

How to report: segregate by states or provinces; separate butterflies from moths; give name of species, locality (at least as definable on topographical or road map), <u>county</u>, date of record, how attracted or captured, if pertinent (primarily for moths). Lists of species without data (no matter how intriguing) will not be printed. If you do not wish to divulge your collecting spot, then do not submit a report!

Names and sequences: use Ferris, Supplement to A Catalogue/Checklist of the Butterflies of America North of Mexico (Lep. Soc. Memoir No. 3, 1989) for butterflies, MONA list (Hodges, 1983), for moths or the most up-to-date reference available to you for each group. List the species in the same_sequence as in that reference (this will save the coordinator an immense amount of time). Cite the name of any expert who defined a difficult or unusual species for you.

Records from prior years, dated as such, may be included, if proper determination resulted in delay, or to respond to a statement in a previous Summary.

When to report: reports must reach coordinator by 5 January 1992 in order to allow him/her the next six weeks to compile data. *Earlier reporting is encouraged*, so that the coordinator will have time to inquire about any data that are unclear.

Where to send reports: The 13 numbered and defined zones with the Coordinators' names and addresses follow this notice. Please send the state/province report directly to the Coordinator for the appropriate area.

All contributors will be acknowledged by name in the summary. However, the balance of significance vs. space available will determine whether a particular record is included by the coordinator.

NOTE: A record as used in the summary should mean the first time known to the collector that that species had been captured in a given province, state or county. In other words, if you have determined the scientific name of your butterfly or moth, looked it up in an available reference and have seen that where you collected it is within it's previous known range...it is NOT a record. You may submit such data but the Zone Coordinator and the Editor may omit references to species long known to occur in well and often collected localities.

List of Zones and Coordinators

- FAR NORTH (Eastern Siberia, Alaska, Yukon, NWT, Greenland): Ken PHILLIP, Inst. of Arctic Biology, Univ. of Alaska, Fairbanks, AK 99701 USA.
- 2. PACIFIC NORTHWEST (OR, WA, ID, B.C.): Jon SHEPARD, Sproule Creek Rd., R.R. 2, Nelson, B.C., V1L 5P5, CANADA.
- 3. SOUTHWEST (CA, NV, AZ): Bob LANGSTON, 31 Windsor Ave., Kensington, CA 94708 USA.
- 4. ROCKY MOUNTAINS (Alta., MT, WY, UT, CO, NM): Ray STANFORD, 720 Fairfax St., Denver, CO 80220 USA.
- 5. PLAINS (Sask., Man., ND, SD, NE, KS): Ron A. ROYER, Division of Science, Minot State University, Minot, ND 58701 USA.
- 6. SOUTH CENTRAL (OK, TX, AR, LA): Ed KNUDSON, 8517 Burkhart Rd., Houston, TX 77055-5717 USA.
- 7. ONTARIO/QUEBEC: Ross LAYBERRY, 6124 Carp Road, RR #2, Kinburn, Ontario, K0A 2H0, CANADA.
- 8. MIDWEST (MN, WI, MI, IA, MO, IL, IN, OH, KY, WV): Les FERGE, 7119 Hubbard Ave., Middleton, WI 53562 USA.

- 9. SOUTHEAST (TN, MS, AL, VA, NC, SC, GA, FL, Bermuda): Andy BECK, NDVECC, Box 43, Naval Air Station, Jacksonville, FL 32212 USA.
- 10. NORTHEAST (NF, Labr., Maritimes, New England, NY, PA, NJ, MD, DE, DC): Dave WINTER, 257 Common St., Dedham, MA 02026 USA
- 11. HAWAII/PACIFIC ISLANDS: David Preston, The State Museum of Natural and Cultural History, 1525 Bernice Street, P.O. Box 19000 A, Honolulu, Hawai'i 96817-0916.
- 12. **NORTHERN NEOTROPICS** (Mexico, Central America, Antilles): Eduardo WELLING M., Apartado Postal 701, Merida, Yucatan, MEXICO.
- 13. **SOUTH AMERICA**: Boyce DRUMMOND, Natural Perspectives, P.O. Box 9061, Woodland Park, CO 80866 USA.

EDITORS NOTE: It frequently takes first class mail 3 to 4 weeks for delivery in Canada, so mail your Canadian records early with this in mind. The same is true for mail to reach the U.S. from Canada so give the Canadian based coordinators plenty of time. It takes over a week for mail to reach Mexico also. Also, note that the deadline for material to be in the hands of the coordinators is January 5th and material received by them after this date is apt to be left out of their reports altogether.

The Lepidopterists' Bookshelf

RECENTLY PUBLISHED BOOKS

Acorn, John. 1993. BUTTERFLIES OF ALBERTA. Lone Pine Publishing, 206, 10426-81 Avenue, Edmonton, Alberta, Canada T6E 1X5. 141 pages, numerous color photographs and B&W line drawings. Softcover, 14 x 21.5 cm, ISBN 1-55105-928-5, \$16.95 Canadian (about \$13 U.S.).

This attractive field guide to the 156 butterfly species recorded from Alberta, Canada, covers distinguishing features, flight periods, geographic ranges, behavior, and preferred foodplants. With emphasis on butterfly watching and photography, the book is nicely written and well-illustrated with crisp color photographs.

[To be reviewed in the Journal.]

Bailey, W. J. & J. Ridsdill-Smith (eds.). 1991. REPRODUCTIVE BEHAVIOUR OF INSECTS: INDIVIDUALS AND POPULATIONS. Routledge, Chapman & Hall, 29 West 35 Street, New York, NY 10001-2291. 339 pages. Hardcover, 16 x 24 cm, ISBN 0-412-31280-8, \$95.00.

The eleven chapters in this book survey insect reproductive behavior, including the strategies adopted to bring the sexes together and the resulting oviposition and larval competition. Four chapters are of particular interest to lepidopterists: "Mate finding: Selection on sensory cues" by Winston Bailey, "Host location and oviposition on plants" by Rhondda Jones, "Host selection in the Heliothinae" by Gary Fitt, and "Larval contribution to fitness in leaf-eating insects" by Duncan Reavey and John Lawton.

[To be reviewed in the Journal.]

Byatt, A. S. 1992. ANGELS & INSECTS: TWO NOVELLAS. Random House. New York. 339 pages. Hardcover, $15.5 \times 21.5 \text{ cm}$, ISBN 0-679-40512-7, \$21.00.

These two offerings of winged Victoriana (as the New Yorker Magazine called them), are, like A. S. Byatt's Booker Prize-winning novel Possession, set in the mid-ninteenth century, weaving fact and fiction, reality and romance. The first, "Morpho Eugenia", takes its name from one of the rare and exotic butterflies collected by William Adamson, a thiry-four-year-old amateur naturalist who returns to England in 1859 after spending ten years in the Amazon "in search of undiscovered creatures." Misfortune on the arduous trip home leaves him without possessions and with only a few (but very rare and valuable) specimens, which the Reverend Harald Alabaster, a baronet and an indiscriminate and greedy collector of remnants of the natural world, is eager to acquire. Eugenia is also the name of Alabaster's eldest daughter, with whom William falls in love. Thus, "Morpho Eugenia" becomes a lively Gothic fable about the Victorian obsession with Darwinian theories of breeding and sexuality and the parallels between insect and human society --- the capture and taming of nature, whether it be a young woman in a country house or a rare butterfly, gleaming in the forests of the Amazon. For lepidopterists, this is the prize piece, and the the second novella is almost anticlimatic: "The Conjugial Angel" concerns Tennyson's "In Memoriam," published in 1850, and explores the contemporary preoccupation with God and life after death.

Glassberg, Jeffrey. 1993. BUTTERFLIES THROUGH BINOCULARS. A FIELD GUIDE TO BUTTERFLIES IN THE BOSTON-NEW YORK-WASHINGTON REGION. (Forward by Edward O. Wilson, Preface by Robert K. Robbins.) Oxford University Press, New York. 160 pages, 300 color photographs in 40 plates. Softcover, 14 x 21 cm, ISBN 0-19-507983-3, \$19.95. (also available in hardcover).

This user-friendly guide to the nearly 160 species that inhabit the northeast covers all species in the Boston-New York-Washington area and 80% of all species found in states east of the Mississippi (Florida excepted). The numerous color photographs are supplemented by a new set of field marks to aid identification without the need for netting specimens. Also included are basic natural histories of each species, including flight times, ranges, and seasonal patterns, and suggestions on where to find particular species in the densely population region covered by the book.

[Currently being reviewed for the Journal.]

Goodenough, J. L. & J. M. McKinion. 1992. BASICS OF INSECT MODELING. American Society of Agricultural Engineers, St. Joseph, Michigan. 232 pages. Hardcover, 15.5 x 23 cm, ISBN 0-929355-31-8, \$49.00 (+ \$3.50 p&h; add 10% for orders shipped outside the U.S.). Order from ASAE, Dept. 1621, 2950 Niles Road, St. Joseph, MI 49085-9659.

Advances in artificial intelligence and expert systems have provided unprecedented opportunities for pest and resource managers in their quest to apply information to problem solving. This book explains how to apply this technology to insect modeling. A major finding is that insect problems in agriculture are rarely limited to the occurrence of a single species, but instead involve a community of interacting plant and animal species. Several chapters use Lepidoptera as examples, covering adult dispersal and caterpillar control.

[Currently being reviewed for the Journal].

Heinrich, Bernd. 1993. THE HOT-BLOODED INSECTS: STRATEGIES AND MECHANISMS OF THERMOREGULATION. Harvard University Press, 79 Garden Street, Cambridge, Massachusetts 02138. 601 pages, 10 photographs & 257 drawings. Hardcover, 18.5 x 24 cm, ISBN 0-674-40838-1, \$75.00.

Bernd Heinrich's widely praised *Bumblebee Economics* set a high standard for authoritative, gracefully articulate writing about insect science, specifically thermoregulation. *The Hot-Blooded Insects* greatly advances this new field of study by presenting the current state of knowledge about thermoregulation in all the major insect taxa, offering

significant new insights into physiology, behavior, ecology, and evolution.

[To be reviewed in the Journal]

McCabe, Timothy L. 1991. ATLAS OF ADIRONDACK CATERPILLARS. New York State Museum Bulletin, No. 470. The New York State Museum, Division of Research and Collections, Albany, New York. 114 pages, 104 B&W photographs, 100 line drawings. Softcover, 21.5 x 28 cm, ISBN 1-55557-185-9, \$19.95 (+\$1.00 p&h). Order from Publication Sales, The New York State Museum, 3140 CEC, Albany, NY 12230.

Photographs of caterpillars, and line drawings of head capsules and mandibles, are presented for 178 species of Macrolepidoptera found in the Adirondack Mountains of New York State. Host records are given for 250 species, as well as a list of plant species rejected by first instar larvae. Notes on flight period, diapause, and adult emergence are also given. Finally, a selected, worldwide bibliography of works that depict immature stages of Lepidoptera is provided.

[Currently being reviewed for the Journal].

Miller, Millie & Cyndi Nelson. 1993. PAINTED LADIES: BUTTERFLIES OF NORTH AMERICA. A Pocket Nature Guide. Johnson Books, 1880 South 57th Court, Boulder, Colorado 80301. 64 pages, profusely illustrated with original drawings. Softcover, 10.2 x 15.3 cm, ISBN 1-55566-103-3. \$5.95. (To order from the publisher, add \$3 p&h).

This latest volume in the best-selling Pocket Nature Guide series covers nearly 90 species of butterflies commonly found in the United States. Each butterfly is illustrated by a watercolor painting for identification, which is supplemented by concise information on life history, behavior, the terrain favored by the butterfly, and its host and nectar plants. An accessible, portable, useful, and beautiful introductory guide.

[See review by Andrew Warren in this issue of the NEWS]

Naumann, Ian. 1993 (6th edition). CSIRO HANDBOOK OF AUSTRALIAN INSECT NAMES. CSIRO Publications, 314 Albert Street, East Melbourne, Victoria, 3002, Australia. (Also available from Apollo Books, Kirkeby Sand 19, DK 5771 Stenstrup, Denmark.) 193 pages. Softcover, 17.5 x 24 cm, ISBN 0-643-05510-X, \$50 Australian in Australia, \$50.00 U.S. outside Australia.

This volume, a much enlarged successor to *Scientific and Common names* of *Insects and Allied Forms Occuring in Australia*, covers over 2000 species and nearly 250 families of Australian insects, spiders, mites, and scorpians, and some land-based crustaceans and molluscs, giving for each the correct scientific name, family classification, and common name for all species for which a common name is used.

[see review by Boyce Drummond in this issue of the NEWS]

New, T. R. 1991. BUTTERFLY CONSERVATION. Oxford University Press, New York. 224 pages. Softcover, 13.5 x 21.5 cm, ISBN 0-19-553228-7, \$29.95.

The decline in abundance of many butterfly species in recent years has led to increasing anxiety about aspects of their conservation throughout the world. In this book, Tim New provides a broad survey of the emerging science of butterfly conservation and traces the causes of declining species populations, local assemblages, and whole faunas, using examples drawn from several countries.

[Currently being reviewed for the Journal.]

Otero, Luiz Soledade (text) & Luiz Claudio Marigo (photography). 1990. BUTTERFLIES: BEAUTY AND BEHAVIOR OF BRAZILIAN SPECIES. Published by Marigo Communicação Visual, Rua Leitao da Cunha, 48/302, 22251, Rio de Janeiro, Brazil for Banco Chase Manhattan S.A. 128 pages, numerous color photographs. Hardcover,

jacket, 23 x 29.5 cm, ISBN 85-85352-02-7, about \$60.00 U.S.

One of a series of books on Brazilian natural history sponsored by Chase Manhattan Bank, *Butterflies* is a diverse collection of photographs of butterflies in natural settings, each briefly annotated with comments on habits and habitat.

[see review by Boyce Drummond in this issue of the NEWS]

Papaj, Daniel R. & Alcinda C. Lewis (eds.). 1993. INSECT LEARNING: ECOLOGICAL AND EVOLUTIONARY PERSPECTIVES. Routledge, Chapman & Hall, 29 West 35 Street, New York, NY 10001-2291. 398 pp. Hardcover, 16 x 23.5 cm, ISBN 0-412-02561-2, \$45.00.

Challenging the widespread view that insect behavior is rigidly programmed and inflexible, this volume explores the plasticity in the behavior of insects that can only be explained by learning. The 14 chapters review the literature as well as present new results, hypotheses, and methods. Of particular interest to lepidopterists is Alcinda Lewis' contribution, "Learning and the evolution of resources: Pollinators and flower morphology," in which she describes her experiments on learning and memory in *Pieris rapae*.

[Currently being reviewed for the Journal.]

Pittaway, A. R. 1993. THE HAWKMOTHS OF THE WESTERN PALAEARCTIC. (Forward by Ronald W. Hodges). Harley Books, Martins, Great Horkesley, Colchester, Essex CO6 4AH, England. 240 pages, 20 color plates, 60 text figures, 58 maps. Hardcover, 22 x 29.5 cm, ISBN 0-946589-21-6, £ 55 (about \$85 U.S.).

Fifty-seven species of Sphingidae occur in the western Palaearctic — an area bordered by the Atlantic Ocean to the west, the Sahara Desert to the south, the Arctic to the north, and Siberia to the east. Pittaway's book treats this relatively well-known fauna in a way useful to both professional and avocational lepidopterists. The Introduction begins with an Historical Account of the Study of the Sphingidae, followed by sections on their Life History, Adult Biology, Adult Morphology, Ecology, and Classification. In the Systematic Section, a Check List is followed by detailed descriptions of the 57 species and 28 subspecies (each with full synonymy), with distribution maps; text figures of larval structures, pupae, genitalia, and wing patterns; vernacular names in several European languages; appendices; references; and 20 superb color plates.

[To be reviewed in the Journal.]

Racheli, Tommaso & Lorraine Pariset. 1993. IL GENERE BATTUS: TASSONOMIA E STORIA NATURALE. Fragmenta Entomologica, Volume XXIII, Supplemento. 163 pages, 27 plates (16 in color). (Available from T. Racheli, Via Guiseppe Valmarana 66, I-00139 Rome, Italy.) Softcover, 17 x 24 cm, ISSN 429-288X, price unknown. In Italian.

This revision recognizes 14 species and covers early stages, phenology, behavior, reproductive biology, mimicry, population biology, morphology, and classification.

[To be reviewed in the Journal.]

Robinson, Gaden S. & Ebbe S. Nielsen. 1993. TINEID GENERA OF AUSTRALIA (LEPIDOPTERA). Monographs on Australian Lepidoptera, Volume 2. CSIRO Publications, 314 Albert Street, East Melbourne, Victoria 3002, Australia (also available from Apollo Books, Kirkeby Sand 19, DK-5771 Stenstrup, Denmark.). 344 pages, 734 illustrations. Hardcover, 18 x 25.5 cm, ISBN 0-643-05025-6, \$80 Australian in Australia, or \$80 U.S. outside Australia.

Advertized as the first modern taxonomic treatment of a continental fauna of Tineidae, this revision provides a comprehensive overview of the 44 Australian genera, embracing nearly 200 species. The book includes critical appraisal and redefinition of subfamilies, detailed

morphological accounts of each subfamily and genus, extensive reviews of tineid biology and pest status, and profuse illustrations of adult moths, venation, genitalia, and head structure.

[To be reviewed in the Journal.]

Roitberg, Bernard & Murray Isman (eds.). INSECT CHEMICAL ECOLOGY: AN EVOLUTIONARY APPROACH. Routledge, Chapman & Hall, 29 West 35 Street, New York, NY 10001-2291. 359 pages. Hardcover [ISBN 0-412-01871-3; \$69.95] or softcover [ISBN 0-412-01881-0; \$35.00], 15 x 23 cm.

The eleven chapters in this book explore the many interactions among insects and between insects and other organisms that are mediated by chemicals acting as signals. Of special interest to lepidopterists are the chapters by Mark Rausher ("Natural selection and the evolution of plant-insect interactions"), May Berenbaum and David Seigler ("Biochemicals: Engineering problems for natural selection"), Deane Bowers ("The evolution of unpalatability and the cost of chemical defense in insects"), and P. L. Phelan ("Evolution of sex pheromones and the role of asymmetric tracking"), all of which draw heavily on examples from the Lepidoptera.

[Currently being reviewed for the Journal.]

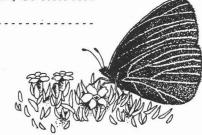
Stamp, Nancy E. Stamp & Timothy M. Casey (eds.). 1993. CATERPILLARS: ECOLOGICAL AND EVOLUTIONARY CONSTRAINTS ON FORAGING. Routledge, Chapman & Hall, 29 West 35 Street, New York, NY 10001-2291.587 pages. Hardcover, 16.5 x 23.5 cm, ISBN 0-412-02681-3, \$79.00.

This massive compendium on the many varied aspects of caterpillar biology does for lepidopteran larvae what the Vane-Wright & Ackery Royal Entomological Society of London Symposium volume, BIOLOGY OF BUTTERFLIES, did for butterfly adults almost a decade ago. Nineteen authors have written 17 exceptionally interesting chapters that cover everything from behavioral and nutritional ecology to insect physiology and biophysics, organized into three sections: "Constraints on Foraging Patterns of Caterpillars" (8 chapters), "Ecological and Evolutionary Consequences: Caterpillar Life-Styles" (4 chapters), and "Environmental Variation in Time and Space" (5 chapters).

[Currently being reviewed for the Journal.]

Anyone with knowledge of publication of new titles of books, videotapes, or audiotapes of interest to lepidopterists, and especially of books published outside the United States, are requested to send full particulars to the Book Review Editor of the Journal, both for inclusion in this column and to allow for timely review in the *Journal*. Publishers are invited to send review copies directly to the Book Review Editor for consideration for review in the *Journal*. Members interested in reviewing books for the *Journal* should send their requests or interests to:

Boyce A. Drummond Book Review Editor Journal of the Lepidopterists' Society Natural Perspectives P.O. Box 9061 Woodland Park, CO 80866-9061



BOOK REVIEWS

CATERPILLARS: A SIMPLIFIED FIELD GUIDE TO THE CATERPILLARS OF COMMON BUTTERFLIES AND MOTHS OF NORTH AMERICA. by Amy Bartlett Wright. 1993. Peterson First Guides. Houghton Mifflin Company, New York. 128 pp., 54 color plates, several line drawings. Softcover, 9.5 x 18.5 cm, ISBN 0-395-56499-9, \$4.95.

Everyone encounters caterpillars every now and then, but even for lepidopterists there hasn't been a quick reference to these interesting and often conspicuous animals. Now there is. This small book is a field guide to the caterpillars of 120 common or characteristic butterflies and moths (57 butterflies and 63 moths, plus 6 additional species represented by close relatives.)

It includes a system of categorizing larvae by overall appearance, along with brief comments about the life cycle, tips for the care and raising of caterpillars, and a generic editor's note by Roger Tory Peterson.

To use this book to identify a caterpillar, one must first assign the larva to one of eleven groups: smooth, smooth with knobs or bumps, smooth with rear horn or tail, smooth with fleshy filaments, sluglike, hairy, hairy with tufts, bristled, branched spines, internal feeders, or structure-building caterpillars. Some specimens may not fall clearly into one of these groups (e.g., "hairy" or "bristled"?), but this categorization works acceptably well. I was disappointed, though, that there isn't an introduction to natural (taxonomic) groups of caterpillars or to the kinds of caterpillars that people know something about. "Hornworms" are a natural group, and there is a brief description of sphingid larvae; however, most everyone knows of "inchworms," but there is no general statement about them, except for a comment buried in one species description about fewer prolegs leading to a looping or inching gait. Skippers are grouped together, but there is no comment about their relatedness, and the same is true for geometrids and lycaenids. Technical taxonomic descriptions are out-of-place in a book like this, but living organisms do fall into clearly recognizable groups, the basis of our taxonomic system, and I think guiding beginners to seeing natural groupings helps them learn about

When one writes about only part of a fauna, the selections of species included can range from the most conspicuous and distinctive to representatives of all different groups. Wright chooses some of both. She includes many of the largest and most colorful (e.g., swallowtails), while her choices represent 19 of 22 subfamilies of butterflies and skippers, along with 9 species of sphingids, 11 saturniids, 10 arctiids, 17 noctuids, (only) 3 geometrids, and 4 micros. One may quibble about omitted species, but her selections are reasonable and do provide some western geographic balance to the many eastern species.

There is strong focus on common names. Scientific names appear in the index, somewhat concealed, rather than included with common names in the species descriptions. This de-emphasis is regrettable and reflects "dumbing down," likely due to the publisher more than to the author, and calls into question the audience for the book. More on that later.

Overall, the text has been carefully prepared, with the author appearing to have relied extensively on sources such as Covell's (1984) Peterson Field Guide to Moths of Eastern North America. I found few mistakes. The Anicia Checkerspot is labeled Euphydryas chalcedona rather than (for consistency) using anicia or chalcedona for both names (p. 126); clearwing moths are said to have transparent windows in their wings because scales rub off rather than because they don't develop (p. 64); the sense of taste is omitted in describing how females recognize acceptable hostplants (p. 4); and tufts of hairs on caterpillars

are referred to repeatedly (e.g., p. 94) as "hair pencils," a term better left to pheromone-producing structures of adults. Also, the notes about foodplants are occasionally misleading (as with Variegated Cutworm and Woolly Bear), and a symbol is missing on p. 12. The art work is accurate for the level of detail given, though colors in the figures sometimes appear brighter than they do in nature. No information is provided about the author/illustrator.

So who will use this book? The fact that it is a Peterson First Guide implies that, like other such small guides, it is intended for children and beginners who will then move to a more comprehensive guide later on (as stated in the editor's note). Of course there is no such field guide to move on to, and the book will find a broad audience precisely because there is no other field guide to caterpillars. This book is needed, and it nestles easily into the broad gap between the token presentation of larvae given at the beginning of most Lepidoptera field guides and the detailed treatment that characterizes technical works such as Stehr's (1987) Immature Insects. Despite some missed opportunities to be even better, Wright has done well, and it is a successful field guide. Beginners of all ages will make good use of this book, as will experienced lepidopterists, who want a reference to the wonderful diversity of caterpillars.

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PAINTED LADIES: BUTTERFLIES OF NORTH AMERICA, by Millie Miller and Cyndi Nelson. 1993. A Pocket Nature Guide. Johnson Books, 1880 South 57th Court, Boulder, Colorado 80301. 64 pp., over 100 watercolor illustrations. Softcover, flexbound, 10.5 x 15.5 cm, ISBN 1-55566-103-3, \$5.95.

This charming little book is the ninth addition to the Johnson Pocket Nature Guides (in addition to butterflies, the series to date includes mountain and desert wildflowers, cacti, mushrooms, hummingbirds, eastern and western backyard birds, and raptors). The series is designed to interest and inform nature enthusiasts of natural phenomena by means of watercolor illustrations, as well as to present scientific data on subjects using a hand lettered text reminiscent of artwork of the nineteenth century. This book starts out by providing general information on the order Lepidoptera, illustrating several butterfly and four moth species to show the main differences between moths and butterflies. In fact, the very first illustration in this butterfly book is of a luna moth. The introduction continues by discussing butterfly behavior (puddling, mate locating, mating, thermoregulation) and structure. Other aspects of butterfly biology treated in the introduction include metamorphosis and mimicry. Information on butterfly gardening is also included in the introduction. The field guide aspect of the book follows the introduction with information on about 87 species of North American butterflies. Although only around 10 percent of all North American butterfly species are treated, most of the commonest and more widespread species are illustrated. The guide was apparently designed primarily to treat eastern butterfly species, for only 16 mostly western butterfly species are included. There are five sections to each species' coverage: "Lifestyle" (which usually includes information on timing of broods, overwintering stage, a brief description of ova, larvae, and pupae, and often gives notes on adult behavior), "Favors" (gives details on the preferred habitats), "Host" (lists common larval hostplants), "Nectar" (lists most favored nectar sources), and a small shaded map of the North American continent that gives a general idea of each species' continental distribution. Diagnostic adult characteristics are given where confusion with a similar species is possible. Interesting facts are inserted in the discussion of several species.

As would be expected by the introductory nature of the book, the information given is often based on broad generalities, but where specific facts are given for any species, they are quite accurate. This accuracy comes of no surprise, for Boyce A. Drummond was the scientific advisor to the authors, as can be seen by occasional "B.D." initials scattered throughout the text, and the special mention in the back. The watercolor illustrations vary in quality. Illustrations of the hairstreaks, Vanessa, the fritillaries, and the true skippers are excellent, whereas the illustrations of the blues, crescentspots, and anglewings are not as good. The Thorybes pylades illustration looks more like a Cogia species, but the illustrations of the elfins are among the best I have seen. Several additional illustrations, such as puddling sulphurs, a swarm of Parnassius phoebus, and a hackberry butterfly on a child's nose add much charm to the book. Most species are illustrated on their hostplant, or on a favorite nectar plant. Larvae and pupae are also frequently illustrated, usually on the hostplant. A brief bibliography is given at the end, as well as the address of the Xerces

The organization of this book is quite artistic. The book is designed so that the binding is at the top, and the cover opens up as in a wall calendar (rather than to the left as in most books). The book is read from the top of the upper page to the bottom of the lower page. The handwritten text has a distinctive playful tone to it. Frequently, three individuals of each treated species are illustrated somewhere on the page of that species' treatment, separated from each other by text. In a few cases, this organization can be confusing where two similar species are illustrated next to each other, especially when illustrations of one species are on two different pages. To eliminate confusion, the upper and lower page combined should be viewed as one single page.

This attractive book should be useful to any amateur lepidopterist, any naturalist, or anyone who is developing an interest in butterflies. This book appears as if it would be especially good for children. I would also recommend it to any teachers who have students interested in butterflies.

Andrew D. Warren Department of Entomology Comstock hall Cornell University Ithaca, New York 14853-0999

Naumann, Ian. 1993 (6th edition). CSIRO HANDBOOK OF AUSTRALIAN INSECT NAMES. CSIRO Publications 314 Albert Street, East Melbourne, Victoria 3002, Australia. 193 pages. Softcover, 17.5 x 24 cm, ISBN 0-643-05510-X, \$50 Australian in Australia, \$50.00 U.S. outside Australia.

The on-again/off-again debate about the utility and validity of common names for Lepidoptera recently resurfaced with the publication in the United States of *The Common Names of North American Butterflies* (1992, edited by Jacqueline Y. Miller; Smithsonian Institution Press, Washington, DC), which was reviewed in the *Journal of the Lepidopterists' Society* by both Raymond White (JLS 46:310-311) and James Scott (JLS 47:170-171). Regardless of those who argue against common names, the general public clearly likes them, and publishers of field guides and other popular books on butterflies usually demand that their authors include them. Thus, common names are here to stay.

In recognition of this fact, *The Common Names* book was published primarily as a concordance to the diversity of common names found in the most widely used butterfly books.

Even more recently, the nascent North American Butterfly Association

(NABA) has further advanced the evolution of butterfly common names by forming a Standing Committee on English Names that seeks to "establish the official NABA list of North American Butterfly English names." Drawing on the extensive experience of American birders, NABA formulated its Policy Guidelines for choosing or coining names (see *American Butterflies*, Volume 1, Number 1, pages 21-29) by adopting or adapting relevant policy sections from the *Check-list of North American Birds* (6th edition, 1983) developed by the American Ornithologists' Union (AOU). NABA hopes to complete its list of butterfly common names for America north of Mexico by the end of 1993, but eventually hopes to expand its list to include the butterflies and skippers of Mexico as well.

Given all this activity in the United States, it is instructive to see what other countries have done or are doing about common names. Australia, long recognized for its leadership in conducting national surveys of flora and fauna, has just published the 6th edition of its CSIRO Handbook of Australian Insect Names, a much enlarged successor to Scientific and Common Names of Insects and Allied Forms Occuring in Australia. Subtitled "Common and Scientific Names for Insects and Allied Organisms of Economic and Environmental Importance," this book covers over 2000 species and nearly 250 families of Australian insects, spiders, mites, and scorpians, and some land-based crustaceans and molluscs, giving for each the correct scientific name, family classification, and common name for all species for which a common name is used. What a task --- and we Americans think that agreeing on common names for butterflies and skippers alone is hard work!

The CSIRO Handbook comprises four lists: (1) an Index of Common Names, (2) an Index of Scientific Names, (3) a Systematic List, and (4) an Index of Commonly Used Abbreviations of Authors' Names. All but the Systematic list are arranged alphabetically. This most recent update of the Handbook (the 5th edition was published in 1987) was prompted by the publication in 1991 of the second edition of the landmark *The Insects of Australia* (Melbourne University Press --- for a complete citation see Recently Published Books in the May-June 1993 issue of the *NEWS*). Both publications are sponsored by the Division of Entomology of the remarkable CSIRO (Commonwealth Scientific and Industrial Research Organization), government patron of Australian science.

The Australians' first list of common names appeared in 1955 and the subsequent editions have grown considerably in size and sophistication. The 6th edition is handsomely produced and features numerous ghost-like images of a variety of insects over which the crisp text is printed. The four lists are preceded by brief prefatory sections entitled: Background, Conventions, Acknowledgments, and Anomalies. The later reminds us that all countries face problems in choosing appropriate common names. For example, *Maleuterpes spinipes* Blackburn (Curculionidae) bears two common names: "spinelegged citrus weevil" and "dicky rice weevil." The latter common name is misleading because the insect has never been recorded as associated with rice crops, but was included because it is well-known and is used frequently in the literature. (I also found "dicky" to be misleading, but the book didn't explain that.)

Furthermore, common names based on poor scientific names sometimes lead to problems. Consider these two species of ladybird beetles: *Epilachna vigintioctopunctata pardalis* (Boisduval) is listed as having the common name "twenty-six spotted potato ladybird" whereas *E. vigintisexpunctata* (Boisduval) is listed as the "twenty-eight spotted potato ladybird." The number of spots indicated by the common names and the scientific names in these two species are reversed. Apparently, the original describers of these two species (Fabricius and Boisduval, respectively) miscounted the spots and assigned inappropirate scientific names. Thus, here we have a case where the common names more accurately characterize the spot numbers of the two species than do the scientific names.

And now, a few of my favorite names. Some names invite endless speculation. How about the "bird-dropping spider" (does it look like a bird dropping, or does it drop birds?). Try "redshouldered ham beetle" (does it act up? or does it attack pigs?). Or the "black and white tit" (nope --- it's a lycaenid butterfly: Hypolycaena danis turneri). Or "yellow nightstalking sac spider" (use your imagination).

Some names apparently refer to habits or hosts of the insects: "sewage springtail," "sheep nasal bot fly," "scale-eating caterpillar," "ornate kangaroo tick." Other names indicate the foreign origin of the species: "Kenyan dung beetle," "European chicken flea," "American ribbed fluke snail." And this edition incorporates for the first time a number of Aboringinal names: "Noogoora burr seed fly," "Cootamundra wattle psyllid," and "kurrajong pod beetle" for example. A few names left me baffled --- for example, why should an organism be called a "Victorian predator mite"...?

In fact, what appears at first glance to be a series of tedius lists of names turns into an exciting reading experience. I found myself fascinated with (and bewildered by) the seemingly endless variety of common (and scientific) names --- a creative collection of epithets to match the dizzying diversity of Australia's insects and related organisms.

Boyce A. Drummond Natural Perspectives P.O. Box 9061 Woodland Park, Colorado 80866-9061

MORE PICTURE BOOKS FOR YOUR COFFEE TABLE?

THE ART OF THE BUTTERFLY, by Ed Marquand (Photographs by Michael Burns, Afterword by Robert Michael Pyle). 1990. Chronicle Books, 275 Fifth Street, San Francisco, California 94103. 120 pp., 130 color photographs. Hardcover, 25 x 26.5 cm, ISBN 0-87701-792-1. \$30.00. (Also available in softcover: ISBN 0-87701-784-0, \$16.95).

BUTTERFLIES: BEAUTY AND BEHAVIOR OF BRAZILIAN SPECIES, by Luiz Soledade Otero (text) and Luiz Claudio Marigo (photography). 1990. Published by Marigo Communicação Visual, Rua Leitao da Cunha, 48/302, 22251, Rio de Janeiro, Brazil for Banco Chase Manhattan S.A. 128 pages, numerous color photographs. Hardcover, jacket, 23 x 29.5 cm, ISBN 85-85352-02-7, about \$60.00 U.S.

BUTTERFLIES, Thomas C. Emmel. 1991. Mallard Press, 666 Fifth Avenue, New York, New York 10103. 143 pp., many color photographs. Hardcover, 26.5 x 36.5 cm, ISBN 0-7924-5509-6. Price unknown.

All of you bibliophiles out there know a simple truth: the number of "butterfly books" published worldwide each year is considerable. A second truth is that these books are expensive, often priced 50 to 100% higher than books of similar size and length on other subjects. The high prices stem primarily from the lavish use of color illustrations, but also from the relatively limited market for such "specialty" works. Of course the diversity of publications included in the category "butterfly books" is very broad, ranging from taxonomic revisions, multi-authored symposia volumes, and other scientific treatises, on the one hand, to field guides, introductory books, and other popular treatments on the other. Perusing my groaning bookshelves recently I noticed three recent works that exemplify one extreme of this spectrum of lepidopterological publishing --- butterfly picture books. None of these have been reviewed previously in the NEWS or the Journal --- indeed, such books rarely are --- so I decided to describe them here as a counterpoint to the more weighty books usually

reviewed in the Society's publications.

The three books listed above all share one important feature: they emphasize photographs over text, their purpose being to convey some sense of the beauty and diversity of butterflies. Thus, these books are designed to stimulate the esthetic centers in the right sides of our brains, with barely a thought given to the more hard-wired neural connections controlling rational thinking and logical sequences on the left side. In fact, "designed" is the correct verb to describe the way in which these books were conceived and produced --- the designer of each book exerted more influence over the content and its arrangement than did the photographer and writer. Actually, the three books themselves represent a continuum within this category of "right-hemi-sphere picture books." The Art of the Butterfly consists simply of photographs unaccompanied by explanatory text; Butterflies: Beauty and Behavior of Brazilian Species, consists of photographs briefly annotated; and Butterflies intersperses short, introductory-level essays on butterfly biology among the annotated photographs.

The Art of the Butterfly. Ed Marquand, an award-winning graphic designer who specializes in books on art, art history, design, and architecture, designed this book, using photographs taken by Michael Burns. All of the butterflies and moths depicted are pinned specimens photographed at the World Insectarium and Butterfly Park on Sentosa Island, Singapore. The book jacket declares "In this full-color volume Ed Marquand captures the stunning diversity, drama, and subtlety of nearly one hundred butterfly and moth species." True, the color photographs are superb and many of the specimens are stunning, but I fail to see any "drama" in the pinned specimens, however artfully the book is designed. Arrangement of the specimens varies from straightforward depiction in the center of the page, to canted angles with tips of wings cut off by the edge of the page, to multiple images of one or two species that seem to fly onto or off of the page. Artful or not, it is often disconcerting to see as much as a quarter of the specimen omitted, while on the same page expanses of white (which could have accommodated the specimen) remind us that this was a conscious choice. [Perhaps these serve as a painful reminder of Bernard D'Abrera's frustrating Butterflies of the World series, in which wing tips are often swallowed by the center binding, while wide exterior margins of the page are left unused.] Although each specimen is labeled as to family, scientific name, and general distribution, there is no text description or comment, nor any indication of the actual size of the specimens (which are reproduced at up to three times life size in some cases). The specimens depicted are grouped by origin and come from Asia, Indonesia, India, Africa, and South America. Each plate bears a red-bordered oval label inscribed in the center with the plate number in 19th century handscript, giving the book a Victorian feel. The only text in the book comes at the end in the form of a lovely quote from Vladimir Nabokov's autobiography, Speak, Memory, and an Afterword by Robert Michael Pyle, who, in four pages of graceful remarks about the ecological roles and conservation of butterflies, mentions the book only in his last sentence.

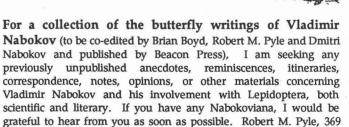
Butterflies: Beauty and Behavior of Brazilian Species. In contrast to the stylistic arrangement of pinned specimens in Marquand's book, this book on Brazilian butterflies consists entirely of live specimens, most photographed in their natural habitats. The photographs were taken by Brazilian nature photographer Luiz Claudio Marigo, whose company, Marigo Communicação Visual (under the direction of Cecilia Banhara Marigo), was largely responsible for the book's design. The text, consisting of a brief introduction to butterfly biology and thumbnail descriptions of the behaviors of the butterflies in the photographs, was written by Luiz Soledade Otero. a professor of entomology at the National Museum of the Rio de Janeiro Federal University. This book is one of several commissioned and sponsored by Chase Manhattan Bank, as part of their ongoing public relations effort to demonstrate corporate reponsibility to the environment (other

books include Mata Atlantica, Pantanal, and Natura). Most of the photographs were taken in natural light (no electronic flash) and are generally excellent, although the shallow depth of field resulting from the large apertures required by available lighting often leave the foregrounds and backgrounds out of focus. Photographs of adult butterflies are augmented by photographs of immature stages of several of the roughly 75 species depicted in the book, and there are excellent pictures as well of many of the diverse habitats to be found in Brazil, including restinga, cerrado, caatinga scrublands, Pantanal swamp, Araucaria forest, Atlantic forest, and, of course, tropical rain forest. The butterfly photographs are not arranged in taxonomic order, but seem to follow a loose ecological association by habit and habitat, as though selection of one picture led by some behavioral or ecological sequence to the next. The effect is like walking through Brazil with a well-informed butterfly expert at your side, who opportunistically points out species and comments on their characteristics.

Butterflies. The sheer size of this book (10-1/2 by 14 inches) almost guarantees that it will be a "coffee-table book" in many homes --- it is too tall to fit on most bookshelves! Designed by the Michael Friedman Publishing Group (Devorah Levinrad is listed as the Designer), Butterflies contains beautifully printed color photographs of living butterflies from North America, Europe, and Australia (the original plan called for North American butterflies only, but to broaden the book's appeal, a few species from Europe and Australia were added!). Most of the photographs are by Edward Ross and George Krizek, both well-known to Society members for their superb butterfly photography. Unfortunately, only a few photographs make use of the very large page size of the book to create spectacular enlargements of the butterflies. These include the Giant Swallowtail, Zebra, Viceroy, and --- best of all --- Western Pine Elfin, but not, alas, the communal roost of Monarchs that would have made a spectacular two-page oversize spread. Curiously, about a half-a-dozen or so photographs show butterflies covered with water-droplets. Presumably these represent individuals found in early morning covered with dew, but the fact that all were taken by the same photographer (John Gerlach) suggests that an atomizer was used to create the effect. distinguishs this book from other "designer butterfly books" is the text, written by Tom Emmel. Although the species accounts (76 species are illustrated and profiled) are perfunctory (with brief and standard descriptions of species distribution, adult color pattern, immature stages, and food plants), the introductory essays (on classification, life history, behavior, ecology, distribution, color patterns, etc.) are very well-written and the section on early philosophical, religious, and scientific perceptions of butterflies is fascinating.

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Research Notices



Loop Road, Gray's River, WA 98621; (206) 465-2539.

For molecular systematic studies of Heliothine Noctuidae, we are seeking alchohol-preserved specimens of species in the genera listed below. We will provide collecting supplies and instructions, and a modest cash reward for specimens obtained. Contact Charles Mitter, Department of Entomology, University of Maryland, College Park, MD 20742; Phone 301-405-3957; FAX 301 314 9290. Genera of interest include <u>Baptarma</u>, <u>Erythroecia</u>, <u>Pyrrhia</u>, <u>Derrima</u>, <u>Microhelia</u>, and Rhodoceia.

Arctiid Research WANTED: Ova, larvae, pupae, or adult Arctiidae for Behavioral Research, especially *Cosmosoma myrodora, Syntomeida ipomoeae*, and *Composia fidelissima*. Will buy or trade for Ecuadorian arctiids (papered). Please contact Bill Conner, Department of Biology, Wake Forest University, Box 7325 Reynolda Station, Winston-Salem, NC 27109. Phone 919-759-5023. FAX: 919-759-6008.

REQUEST FOR INFORMATION - Seeking insect stories: The BBC Natural History Unit in Bristol, UK has recently embarked on a major new six-part series exclusively about insects. The series will take a "science fiction" style look at the alien world of insects. Visually stunning computer effects mixed with live action are one strength of the series. The other is provided by the insects themselves extraordinary creatures carrying on extraordinary lives, most of which have never been previously filmed.

Our aim is to seek out the most new, exciting and bizarre insect stories to include in six programmes with the following themes: - insect design, reproduction, feeding, migration and dispersal, social insects and man/insect interactions. We are particularly keen to film mass migrations of butterflies other than the famous Monarch Butterflies of Mexico. We would therefore be pleased to hear from anyone who either has some good insect stories or could notify us of any visually spectacular butterfly migration they may be observing that we could get to quickly to film. If you are able to help with either of these requests please contact: Wendy Darke (Tel: 44 272 742164) or Ian Gray (Tel: 44 272 742428) FAX no: 44 272 237708. BBC Natural History Unit, Broadcasting House, Whiteladies road, Bristol, BS8 2LR, UK.

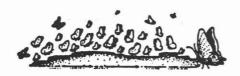
Research on Neotropical Riodinidae- I am presently preparing a monograph on the Neotropical Riodinidae, and would like information on riodinids observed en copula, inluding hour and locality, as well as data on life histories. I will be happy to identify specimens in exchange for distributional information. All inputs will be gratefully acknowledged. Curtis J. Callaghan, Av. Suba 130-25 Casa 6, Bogota, Columbia.

Skippers WANTED for genitalia photography. I am dissecting and photographing the genitalia of male North American (primarily N of Mexico) skippers, with a view to preparing a book on the subject. All specimens loaned will be returned, intact except for part of the abdomen, plus the dissected genitalia preapration and a Book Plate showing the species loaned. I need Thorybes valeriana, T. drusius, Celaenorrhius stallingsi, Timochares ruptifasciatus, Erynnis scudderi, Pyrgus xanthus, Piruna haferniki, Yvretta carus, Polites mardon, Atrytonopsis lunus, Amblyscirtes linda, Megathymus cofaqui harrisi, Stallingsia maculosus, and Panoquina fusina. I can exchange, buy or borrow. Please contact Roderick K. Clayton, 4176 Inglewood Blvd. Apt. 9, Los Angeles, CA 90066.

Swallowtail Parasitoids: I would like any information from members on their rearing records of parasitoids from papilionid pupae, including locality, habitat and host-plant data. I am a graduate student studying the chemical ecology of parasitic wasps in the genus *Trogus* (Ichneumonidae), which specialize on various species of Papilionidae, and I am especially interested in variation in host use and host-finding behavior among the North American species and races of this genus. Accounts of the natural history of these parasitoids and adivce on good collecting locations would be most

welcome. Please contact Karen Sime, Dept. Entomology, Cornell University, Ithaca, NY 14853; phone (607) 255-3093 and e-mail krs1@cornell.edu.

WANTED: Specimens and information about specimens of Axenus arvalis from Colorado or anywhere in the Rocky Mountains. I do not need specimens from California. Axenus arvalis is a small gray day-flying noctuid that is figured in Holland's Moth Book, plate 27, figure 57. Only three specimens are currently known from Colorado, all from Park County. They were collected in July at 10,000 feet. Please reply ASAP to Eric Metzler, 1241 Kildale Sq. N., Columbus, Ohio 43229-1306. USA.



Forthcoming Meetings

New York Natural History Conference III will be held Wednesday April 13 and Saturday April 16 1994 at the New York State Museum in Albany, New York. Featured are natural history workshops for educators, students, researchers, and other. Some workshops will be given on both days. Topics include Air-born Pollen and Mold Allergens, Aquatic Oligochaete and Chironomid Identification, Caterpillar Identification, DNA Extraction, Fish Identification, Liverwort Identification, Northeastern Freshwater Snails, Northeastern Orchid Identification and Wildlife Rehabilitation. Workshop fees range from \$15 to \$50. If interested contact The New York Natural History Conference III, The New York State Museum, 3132 Cultural Education Center, Albany, NY 12230 or call (518) 474-5812.

Pacific Slope Section of the Lepidopterists' Society will meet beginning Friday evening, 10 June 1994 through 12 June. Sessions will be held at Circle X Ranch in the Santa Monica Mountains National Recreation Area.

Circle X Ranch is situated in a rich chapparal habitat in the still pristine western end of the Santa Monica Mountains just below Sandstone Peak, the highest point in the mountains. The ranch offers meeting facilities, adjacent group camping in a chapparal area, and individual camping sites in a riparian habitat. The meeting dates coincide with the new moon, and collecting permits have been obtained for both diurnal and nocturnal collecting in the National Recreation Area. Other accommodations will be available for those who do not wish to camp.

The program will include a symposium on the Lepidoptera and ecology of the Santa Monica Mountains and nearby Channel Islands. the Santa Monica Mountains range from the heart of Los Angeles to Ventura county, with the northern Channel Islands extending beyond. The mountains are surprisingly poorly studied, considering they lie within one of the largest metropolitan areas in the world. Papers on other Lepidopteral subjects are encouraged, including conservation, protection and student papers.

While you are in Los Angeles, visit the Los Angeles County Museum of Naural History. An alternate kids' nature program is planned for Saturday.

Enjoy a June weekend in Malibu, with fun, camaraderie, parties, field trips, mothing and interesting presentations. For further information and a registration package, write Paul and Sandy Russell, 4244 Avenida de La Encinal, Malibu, CA 90265, FAX (310)457-4149.

•••• Due to a major fire in Santa Monica Mountains, the location for the meeting will be changed to another location in the area. Dates will remain the same.

5th European Congress of Entomology will be hosted by the Royal Entomological Society, 29 August through 2 September 1994 at the University of York, United Kingdom. Broadly interpreted themes include: Insect life histories; Habitat management, creation & restoration, Population processes & spatial dynamics, Biodiversity: Does taxonomy matter?, Management of pests & beneficial insects and Insects as indicators of environmental quality. Offers of papers and workshops welcome. The European Congress takes place at four year intervals and is the only forum to cover Entomology in its widest sense across Europe. For details and further mailings contact IFAB Communications, Institute for Applied Biology, University of York, York Y01 5DD, UK. Phone: +44 (0)904 432940 FAX: +44 (0)904 432917

1994 - The 9th European Congress of Lepidopterology is scheduled for 5 - 9 September 1994. The Congress will be held at "Lednice na Morave", Czechoslovakia.

The Council of the Societas Europaea Lepidopterologica kindly invites all SEL members to attend the 9th European congress of Lepidopterology to be held in Lednice na Moravě (Czechiha) from 5 to 9 September 1994. The site of the congress is Faculty of Horticulture, University of Agriculture, and is situated about 10 km westward from the traffic crossway Břeclav, southern Moravia.

The address for correspondence: Department of Zoology and Bee Keeping, University of Agriculture, Zemědělská 1, 613 00 Brno, Czechia (Tel. +42-5-5164, Telefax +42-5-578427 or +42-5-576392). The address of the congress site (about 60 km southward from Brno): Faculty of Horticulture, University of Agriculture, 691 44 Lednice Na Moravě (Tel. +42-627-98210, Telefax +42-627-98411).

The preliminary congress fees amount to 150 - 200 DM. Definite fees will be announced to participants according to 1994 prices (possible price changes up to 1994).

Sections and workshops will be arranged according to registration of papers sent. The following topics are specially invited: General and special problems of taxonomy and evolution; Ecology, endangered species and species protection; Holarctic zoogeography and local faunistics; New discoveries in Micro-lepidoptera; Applied lepidopterology.

The deadline for sending abstracts and posters is 28th February 1994. the instructions together with a letter of information will be sent to the individual contributors in January 1994.

The excursions and collecting excursions. In the environment and surrounding of the congress site numerous monuments of both culture and history are found. Observation and collecting of Lepidoptera will be possible in a wide variety of local habitats (steppe-like treeless habitats of xerothermic character, rocky habitats, dry and lowland forests, meadows, swamps etc.)

Within the scope of the 1994-Congress, a Computer-Workshop will be organized. the aim is to discuss the impact of the use of computers in entomology. In order to plan and organize ahead, we now already ask for contributions to the discussions. In order to allow technical and chronological planning, we need the following information from all participants who wish to contribute to the discussions: Author, title (at least the title of the work of the communication), summary of the communication, Technical needs (development system, hardware, capacity, etc.) These communications should not exceed 15-20 minutes to allow time for as many contributions as possible. The persons

interested should contact us at one of the follwing addresses: Ulf Buchsbaum, Öko-Service-Institut, Schlossgasse 8, D(O)-5305 Kranichfeld, Germany [Tel: Kranichfeld 2301] or Ugo Dall'Asta, Musée royal de l'Afrique Dentrale, Steenweg op Leuven 13, B-3080 Tervuren, Belgium, [Tel: +32-2-769.53.73 (direct line)].

If you are interested in attending the Congress at all, please contact the above address as soon as possible. Include your name, address, phone#, Fax#, names of accompanying person(s), indicate whether you wish to present a poster or paper of twenty minutes long, sign it and date it.

An international symposium "Butterfly Ecology and Evolution" will be held 10 - 12 October 1994 at Stockholm University, Sweden. Preliminary list of speakers include Carol Boggs, Mamuro Watanabe, Konrad Fiedler, Richard Vane-Wright, John Thompson, Paul Brakefield. For details write to Dr. Bengt Karlsson or Dr. Sören Nylin, Department of Zoology, University of Stockholm, S-106 91 Stockholm. FAX: +46-8-167715.

1996 - 20th International Congress of Entomology will be held in Florence, Italy, August 25-31, 1996. The scientific program will be arranged in sections including Systematics and Phylogeny, Zoogeography, Morphology, Reproduction and Development, Cell Biology, Physiology and Biochemistry, Insect Neurosciences, Insect Immunity, Genetics and Evolutionary Entomology, Insect Molecular biology and Genetic Engineering, Ecology and Population Dynamics, Special Environments Entomology, Ethology, Social Insects, Apidology and Sericulture, Agricultural Entomology, Forest Entomology, Tropical Entomology, Urban and Stored Products Entomology, Ecology of Pesticides, Resistance and Toxicology, Entomophagous Insects and Biological Control, General and Applied Insect Pathology, Integrated Pest Management, Medical and Veterinary Entomology, Biodiversity and Conservation, History of Entomology, Entomology for the Third Millenium - Critical Issues. There will also be workshops, plenary symposia, audio-visual sessions, poster sessions. If you are interested in more information write to the Congress Organizing Secretariat O.I.C., Via a La Marmora, 24; 50121 Florence (Italy). (Telephone + +39-55.5000631 or FAX + +39-55.5001912.

Corrections and Minor Changes to the 1992 Membership Directory

(make appropriate changes in Alphabetical List of Members)

NAGANO, CHRISTOPHER D.: change room number to "E-1924" ALFARO VELAZQUEZ, JOSE A.: change street address to "c/Rey Francisco 14; 5 D"

New & Reinstated Members

(NOT included in 1992 Membership Directory; all in U.S.A. unless noted otherwise)

AUSTIN, TIN: Box 155, Tillsonburg, Ontario N4G 4H5, CANADA. BARRETTE, DAVID W.: 513 Edgewood Avenue, Stillwater, MN 55082-5361.

BERENBAUM, MAY R.: Dept. of Entomology, University of Illinois, 505 South Goodwin, Urbana, IL 61801-6975.

BRADY, HAROLD R.: P.O. Box 1673, Southern Pines, NC 28388-1673. CALDAS, ASTRID (Dr.): Depto. de Biologia Animal e Vegetal - IB, Universidade do Estado do rio de Janeiro, rio de Janeiro, RJ 20550-013, BRAZIL.

CECH, RICHARD B.: 174 Pacific Street, #2D, Brooklyn, NY 11201.

COCKRELL, JERRY W.: 29 Biscayne Hills, Northport, AL 35476. COE, FRANCES: 3965 Lynn Ora Drive, Pensacola, FL 32504. DERDERIAN, BERG R.: 777 Grape Street, Riverside, CA 92507.

DEVINE, JOSEPH: 27 Brook Lane, Fredericksburg, PA 17026. DICKEY, DAVID DALE: P.O. Box 11831, Knoxville, TN 37939-1831.

FULLER, STEPHEN E.: 1938 Harris Road, Charlotte, NC 28211. GARRAHAN, WILLIAM D.: 29 Balmoral Avenue, Providence, RI

GIBSON, NATE: 3401 East 18th Street, Casper, WY 82609. GRKOVICH, ALEXANDER: 8 Tree Top Way, Peabody, MA 01960. GUTHRIE, GEORGIANNA: 3 Grey Birch Place, The Woodlands, TX

HAMER-PINERO, RORY PATRICK: Rural Route 02, Box 129, Tickfaw, LA 70466.

HOBBS, JOANNE: 1724 Alberta Avenue, San Jose, CA 95125. HORROCKS, JOHN T.: Granada Gallery, 1809 East Colonial Drive, Orlando, FL 32803.

HRABOVSKY, MILAN: Morpho Ventures, 175 Humphrey Street, Marblehead, MA 01945.

HUNOLT, SYLVIA: 147 East Court, Ottumwa, IA 52501-2641.

ITOH, TAKAO: Kanto Junior College, 625 Oya-cho, Tatebayashi, Gunma 374, JAPAN.

KATANO, HITOSHI: Gochi Kokufu 3234-4, Jouetu-City, Niigata-ken942, JAPAN.

KIRKPATRICK, TED: [address omitted by request]

KRIVDA, WALTER: P.O. Box 864, The Pas, Manitoba R9A 1K8, CANADA.

LEAR, KATHY: 30 Marion Road, Montvale, NJ 07645.

LIND, HEATHER M.: [address omitted by request]

LIND, JIM: [address omitted by request]

MASSICOTTE, GEORGE: 103 Acton Street, Lowell, MA 01852-5403. MARTIN, NEAL: 1721 Tinkers Cove, Charlottesville, VA 22901.

MEARS, KATHLEEN M.: 503 Hill Avenue, Langhorne, PA 19047. MILLER, HETTIE: Box 487, Hydro Road, Clearwater, British Columbia V0E 1N0, CANADA.

MITRE, OSVALDO: Padre Fahy 2855, C.P. 1417, Buenos Aires, ARGENTINA.

MOORE, ALAN: Alan's Organic Gardening & Landscaping, 1021 North Main Street, Allentown, PA 18104.

MOSER, ALFRED: Av. Wilhelm Rotermund, 1045, 93030-000 Sao Leopoldo, Rio Grande do Sul, BRAZIL.

MULLICAN, DAVID E.: 223 Echo Hills Drive, Rossville, GA 30741. NAGEL, JERRY W.: 1603 Chickees Street, Johnson City, TN 37604. O'DONNELL, MICHAEL W.: 962 North Alan Court, Chandler, AZ 85226.

OKA, YOSHIKATSU: Co. Katokenchikukenkyujo, 2-12 Kagurazaka, Shinjuku-ku, Tokyo, JAPAN.

OLIVE, JOHN: 22 Warrnambool Street, Trinity Park, Queensland4879, AUSTRALIA.

PARKER, OTIS: 9441 High Point Road, Laurel Hill, NC 28351. RIAL, JAMES F.: 1419 Hamilton Avenue, Yakima, WA 98902. RIAL, MARIA R.: 1419 Hamilton Avenue, Yakima, WA 98902.

RICHARD, GILLES J.: 6 rue J.C. Bezanier, F-78360 Montesson, FRANCE.

ROMANUL, VICTOR: 807 Maple Street, Mansfield, MA 02048 ROSS, CHARLES L.: Ecology & Systematics, Corson Hall, Cornell University, Ithaca, NY 14853-2701.

RYAN, LLOYD C.: 20218 Skylark Drive, Sun City, AZ 85375-3348. SCHEUERELL, CLARE: 435 AW-LGC, PSC 05 Box 3087, APO AE 09057 [USA].

SCHMELZER, SHAWN MARIE: [address omitted by request] SCRUGGS, EDWARD D., Jr.: P.O. Box 333, Ellijay, GA 30540. SHULTZ, STEPHEN W.: 14 Johns Canyon Road, Rolling Hills, CA 90274.

SIME, KAREN R.: Dept. of Entomology, Comstock Hall, Cornell University, Ithaca, NY 14853-0999.

SLATER, CHARLES P.: P.O. Box 22, Central City, CO 80427-0022. STEADMAN, RICHARD: Gingerland P.O., NEVIS (West Indies). TWARDUS, CHRIS: 490 Springhill Drive, Morgan Hill, CA 95037.

WHITE-NISSENBAUM, KATHLENE: 1928 Old Huntingdon Pike, Huntingdon Valley, PA 19006.

WHITNEY, JOHN P.: Florida Power Corporation, 3201 34th Street

South, St. Petersburg, FL 33711.

WILLIAMS, JAMES J.: 600 Coralberry Drive, Richmond, VA 23236. WRIGHT, J.A.: Windrome Cottage, Drove Lane, Coddington, Newark, Nottinghamshire N924 2RB, ENGLAND.

YOUNG, FLORA: 2802 27 Avenue North, Texas City, TX 77590-3961.

Address Changes

(all U.S.A. unless noted otherwise)



NEW POSTAL CODES FOR GERMANY. On 1 July 1993 Germany completely revised its system of postal codes. We thank Stefan Naumann for thoughtfully providing the new postal codes for all Society members in Germany. The number should precede the city name, replacing all numbers and letters before or after the city name as published in the 1992 Membership Directory.

BENTZ, Gerd: 66540; BOPPRE, Michael: 79252; EGER, Uwe: 44801; EITSCHBERGER, Ulf: 95168: FIEDLER, Konrad: 97074; HAEUSER, Christoph: 61476; HEINBOCKEL, Thomas: 21684; HESSELBARTH, Gerhard: 59356; KRUEGER, Juergen: 40822; KUDRNA, Otakar: 97616; LAMPE, Rudolf: 90489; NAESSIG, Wolfgang: 63165; NAUMANN, Clas: 53113; NAUMANN, Stefan: 10777; PLAUK, Jen Juergen: 28816; PROBST, Helmut: 86842; SCHNEIDER, Dietrich: 82319; SCHROEDER, Stefan: 50997.



ADAMS, JAMES K. (Dr.): 521 Cambridge Drive, Rocky Face, GA 30740.

ALBU, VALERIU (M.D.): 6 Kit Road, Charleston, WV 25304-2768. ANDREWS, MIKE: 16260 Beverly Road, Beverly Hills, MI 48025. ARMSTRONG, WILLIAM E.: 3410 South Shore Road, Hadley, NY 12835.

BAGDONAS, KAROLIS C. (Dr.): Dept. of Biological Sciences, Sam Houston State University, Huntsville, TX 77341.

BALCAZAR L., MANUEL A.: 2903-8 SW 13th Street Gainesville, FL 32608-3034.

BANKS, JAMES C.: P.O. Box 798, , Kensington, P.E.I. C0B 1M0, CANADA.

BARRETTE, DAVID W.: 4110 Durham Court, Eagan, MN 55122-2147. BARRY, DON: 729 Stillwater Avenue, Old Town, ME 04468.

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BRENNAN, HEATHER ANNE: 182 Monmore Road, London, Ontario N6G 3A6, CANADA.

BRUSO, JOSEPH P.: 61 South Mill Street, Hopkinton, MA 01746. DERDERIAN, BERG R.: 111 South Barranca Street, #43, West Covina, CA 91791-2255.

DeVRIES, PHILIP J. (Dr.): Museum of Comparative Zoology, Harvard University, Cambridge, MA 02138.

DINGUS, EVE: 440 Cross Park Drive, Building 1002, Jackson, MS 39208-8984.

DUSSOURD, DAVID: Dept. of Biology, The University of Central Arkansas, Conway, AR 72035-0001.

ELY, CHARLES A.: 314 West 7th Street, Hays, KS 67601.

FINKELSTEIN, JORDAN W. (M.D.): 1112 25th Street NW, #6, Washington, DC 20037-1455.

FOWLER, VANCE G.: 113 Purefoy Road, #E, Chapel Hill, NC 27514-4861

GOODIN, FOREST: 849 Almar Avenue, #C180, Santa Cruz, CA 95060-5848.

GROCOFF, MARC WILLIAMS: 2199 14-mile Road, #204, Sterling Heights, MI 48310.

GUNNING, WILLIAM J.: 3001 Lititz Pike - FC242, P.O. Box 5093, Lancaster, PA 17606-5093.

GUPPY, CRIS: Box 2, R.R. 7, Pioneer, Quesnel, British Columbia V2J 5E5, CANADA.

HARDWICK, DAVID F. (Dr.): 1 Rosamond, Unit 311, Almonte, Ontario K0A 1A0, CANADA.

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HARP, CHARLES E.: 3218 Dove Court, Great Falls, MT 59404-3834. HAWTHORNE, LYNN: 1090 Continental Street, #2, Redding, CA 96001.

HOFFMAN, CHRISTA L.: P.O. Box 1154, Eddyville, KY 42038-1154. HOLY, E. MICHAEL: 4068 Rusty Pine Lane, Liverpool, NY 13090-1109.

JENSON, CHRIS: 120 Burnish Court, Silverdale, PA 18962.

JUMP, PETER M.: 12727 Koenigstein Road, Santa Paula, CA 93060. KANSTRUP, MICHAEL: 79 Park Avenue, Ottawa, Ontario K2P 1B1, CANADA.

KENNEY, ROBERT P.: 721 Jones Parkway, Brentwood, TN 37027. KOFFEL, KEVIN K.: 2044 Myrtle Avenue, #9, Eureka, CA 95501. KONDAL, NORBERT G.: Box 762, McBride, British Columbia V0J

2E0, CANADA. KUROKO, HIROSHI (Dr.): 1 - 4 - 3 Mai, Hannan-shi, Osaka Pref.,

599-02 JAPAN. LACEY, WILLIAM: 2001 North 58th Street, Lincoln, NE 68505.

LAKE, JOHN: 1911 Macdonald Drive, Swift Current, Saskatchewan S9H 1M1, CANADA.

LEES, DAVID C.: Biogeography & Conservation Lab., Departement of Entomology, Natural History Museum, Cromwell road, London SW7 5BD, ENGLAND.

LENCZEWSKI, BARBARA: 1214 N.E. 6th Street, Gainesville, FL 32601.

LOGAN, HARRIETT R.: 508 West Green Street #2W, Champaign, IL 61820.

MACE, STEVEN D.: P.O. Box 122, New Haven, WV 25265-0122.

MACY, RALPH W. (Dr.): 1018 Cascade Way, McMinnville, OR 97128.

McCONNELL, JOHN A. (CPT): U.S. Army Environmental Hygiene Agency, ATTN: HSHB-BR-E, Aberdeen Proving Ground, MD 21010-5422.

McWILLIAMS, GERALD M.: 3508 Allegheny Road, Erie, PA 16508. OGATA, MASAMI (Dr.): 10-76, Kurakuen-ichiban-cho, Nishinomiya-shi 662, JAPAN.

OLSEN, LONNIE E. (Dr.): 3255 Ash Hopper Lane, Colorado Springs, CO 80906-6213.

PAVULAAN, HARRY: 494 Fillmore Street, Herndon, VA 22070. PAYNE, TROY (M.D.): 1620 Mason Lane, Charlottesville, VA 22903-5112.

PETERSON, STEPHEN E., Jr.: 4400 Horizon Hill Blvd., #3107, San Antonio, TX 78229-2246.

PRATT, GORDON F. (Dr.): Department of Entomology, University of California, Riverside, CA 92521.

RICE, RILEY W.: 1816 Trembath Street, Antioch, CA 94509-2144. RICE, VIRGINIA RUTH: 1816 Trembath Street, Antioch, CA 94509-2144.

SHAW, DAVID P.: 22715 SE 20th Street, Issaquah, WA 98027.

SHUEY, JOHN A. (Dr.): The Nature Conservancy, 1330 West 38th Street, Indianapolis, IN 46208.

STOUT, TODD LEWIS: 1456 General Drive, Salt Lake City, UT 84116-4306.

VECSEY, TIBOR: 3811 Prospect Avenue, Yorba Linda, CA 92686. WEHLING, WAYNE F.: 2220 Fairfax, Lansing, MI 48910. WHITE, VICKI: 2001 North Perkins Road, #N167, Stillwater, OK 74075-2928.

YOUNG, JAMES JOHN: Flat 9B, Dor Fook Mansion, 126 Pokfulam Road, HONG KONG.

The Market Place Buy • Sell • Exchange • Wants

BUY - SELL - EXCHANGE: POLICY STATEMENT

Items submitted for inclusion in this section are dealt with in the manner set forth on page 20 of the Jan/Feb 1993 NEWS. Please note that in keeping with the guidelines of the Society, henceforth no mention of any species on any threatened or endangered species list will be accepted in these items. This will include all Ornithopterans now and for the forseeable future. Items will be accepted from members only and will be printed only once unless entry in the maximum of two successive issues is requested. Please keep items short. A maximum of 100 words is allowed. SASE in an ad stands for self-addressed stamped envelope. Ads may request bids by mail on a time-limited "best-offer" basis. OBO in an ad stands for "or best offer". For example: "Watching Washington Butterflies, by Pyle, 1974. \$10 OBO received by 1 Dec 1992".

The Society, as always, expects all notices to be offered in good faith and takes no responsibility for the integrity of any advertiser. Any disputes arising from such notices must be resolved by the parties involved outside of the structure of the Society. However, aggrieved members may request information from the Secretary regarding steps which he/she may take in the event of alleged unsatisfactory business transactions.

Note: U.S. Department of Agriculture (USDA) may require permits for transport of live lepidoptera in any stage. Please inquire.

FOR SALE: Butterflies from California and Arizona - 115 species + . Business size S.A.S.E. please for free lists. Robert Wuttken, 9506 National Blvd. Palms CA 90034-2820.

FOR SALE: Colophon westwoodi &, Cheloderus peñai &, Cyclommatus elaphus & 8.5 cm, Lucanus parryi &, Neolucanus sinicus &, Chrysocroa tonkinensis (Vietnam), Odontolabil spectabilis, O. gracilis, Prosopocoilus moinieri, Dorcus moinieri, Aegus lunatus, A. amictus, Chalcosoma caucasus belangeri, C. c. crassicornis, anoplophora birmanica, A. elegans. Also WANTED: All species of US Lucanidae and Prioninae. Chris Adamson, 5010 Solano Ave., Richmond, CA 94805. Phone: 510-233-3098.

WANTED: I would like to exchange butterflies and moths for same with people from other parts of the world. Write Bob Anderson, P.O. Box 3, Sandy Hook, Manitoba, Canada ROC 2W0.

FOR SALE: Pupae: A. io, A. luna, A. polyphemus, A. selene, B. philenor, C. promethea, C. regalis, E. imperialis, H. cecropia, and S. pyri. Others may be possible. Send SASE to Mark D. Schmidt, 8780 Red Lion --Five Points Rd., Springboro, OH 45066. Willing to trade.

FOR SALE: All kinds of Iranian butterflies such as: Papilio machaon & iranicus, - alexanor - archon - apollonius - hypermnestana etc. I am ready for cooperation with all members interested. Please contact: A. Karbalye, Darvazeh Shemiran Baharastan Ave. No. 365, Teheran, IRAN.

WANTED: Contact with someone in the South or West who has a Lepidoptera flight cage. Purpose: to exchange flight cage livestock. Contact Kenneth R. Knight, 433 Brady NW Comstock Park, Michigan 49321 or Phone (616) 784-6243 or Wally Buttrick 6440 East Fulton, Ada, Michigan 49301 Phone (616) 957-3748.

FOR SALE: Bait traps in local and tropical forms available. Inquire Wm. Ward, 1474 Melbourne Dr. SE, Girard, Ohio 44420-1332. Phone 216-539-5374.

FOR SALE: Cocoons of H. cecropia, Actias luna, A. selene, Antheraea polyphemus, Samia cynthia,, etc. SASE to Jeff Frey, 364 Oaklyn Rd, Lebanon, PA 17042 or phone (717) 272-6597.

FOR SALE: One copy of John Adams Comstock's <u>Butterflies of California</u>, 1927. In excellent condition with all plates intact. This is the black book with the butterfly embossed on the front cover. Price: \$350 + \$5 for shipping costs. Send check or money order to Richard Priestaf, P.O. Box 14203, UCSB, Santa Barbara, CA 93107.

FOR SALE: Large selection of Coleoptera - Lucanidae. I have about 6000 specimens of worldwide Lucanidae (500 species) including all *Colophous* South Africa (13 st.) Good prices. For more information contact Uwe Eger, P.O. Box 100604, D. 44706 Bochum - GERMANY Phone & FAX +0234/705164

FOR SALE OR TRADE: Catocala ova including C. relicta, C. piatrix, C. ultronia, C. grynea, C. innubens, C. amatrix, C. mira, C. obscura, C. luciana, C. concumbens, and C. nuptialis. Also cocoons of S. cynthia a and A. luna. SASE please. James Mouw, 245 Sarah Ave., Iowa Falls, IA 50126.

FOR SALE: A1 papered specimens of butterflies from Indonesia, Thailand, P.N.G., Brazil, Peru, Russia, China, India, etc. *Parnassius, Papilios, Graphium, Charaxes, Polyura*, etc. Free price list. David Hall, 6 Rule St. Cambridge Park, N.S.W. 2747, AUSTRALIA.

FOR SALE: Cocoons of *Attacus* moth and other Asian imports. Send SASE to Ken Deitcher M.D., Box 5162, Albany, NY 12205-0162.

FOR SALE: <u>Butterflies of the Malay Penninsula</u>, a revised 4th ed. by J.N. Eliot, recently published, 595 pp. plus 64 color plates by D'Abrera illustrating all recorded species. \$96 per copy including book postage and & packing in USA. Cheques to Horan & Devlin, 1300 Post Oak Boulevard, Suite 2200, Houston, Texas 77056, USA.

FOR SALE: Pupae of *H. cecropia* from wild stock. contact Mike Matheson, 69 Detroit Ave, Wheatley Ontario, CANADA.

FOR SALE AND/OR EXCHANGE: Pupae of *C. regalis, E. imperialis, S. cynthia, a. luna* and several others. (Sorry, no *C. angulifera* this season). All obtained from wild parents in or around Philadelphia area. Send SASE to Edward J. Somers, 81 Foster Ave., Sharon Hill, PA 19079-1908 or call at (215) 461-0737.

WANTED: Any and all Saturniids for my collection. New collector seeks as many new species of Saturniidae as he can find. Looking for A. selene, C. hercules, A. mimosae, A. mylitta, A. excreta, A. naranja, C. brissotti, L. katinka, etc. any other you may know. Contact Wm. David Garrahan, 29 Balmoral Avenue, Providence, RI 02908-2201, or (401) 274-7693 after 4 pm.

FOR SALE: Cocoons of *H. columbia, A. polyphemus, C. promethea and A. luna*. Ova of many species in the spring. Papered specimens of many butterflies and moths. Literature on rearing butterflies and moths. Send SAE to Gardiner Gregory, Star Route 79, Box 259, Orland, Maine 04472.

FOR SALE: Valuable Butterfly Collection. Many rare specimens. 7,400 items plus vault. Contact: Ron Lasky, 240 E. Palm #309, Burbank, CA 91502 or call (818) 563-4511.

NEW PUBLICATION ON <u>AGAPEMA</u> FOR SALE Copies of "A review of the genus *Agapema* (Lepidoptera: Saturniidae)" (1993, Proc. Denver Mus. Nat. Hist., Series 3, No. 3: 1-22) by R. S. Peigler and R. O. Kendall, may be obtained for \$5.00 each postpaid for Archives Department-Proceedings, Denver Museum of Natural History, 2001 Colorado Boulevard, Denver CO 80205-5798. Make Checks payable to Denver Museum of Natural History. In this paper a new species is described from Texas and some nomenclatural changes are made for other species in the genus.

WANTED: *Papilio International* (A Journal of Entomology) (Denmark) 1983-1989? complete set. I need 5 sets. Contact Hiroto Hanafusa, 6888-2, Tashima, Tottori-shi, Tottori, 680 Japan.

FOR SALE/ TRADE: Livestock A. polyphemus, H. cecropia, C. promethea, A. luna, P. troilus, P. cresphontes, P. polyxenes, L. archippus (hibernaculums), Anisota senatoria (pupae). SASE for prices. Wally Buttrick, Bx. 367, Ada, Michigan 49301 (or phone: 616 957 3748)

FOR SALE OR EXCHANGE: Specimens of Sasakia funebris (bred - ex pupae), Agrias phalcidon including itaituba, fournierae, viola and other forms. Write to John McFeely, 90, Stonechat Avenue, Abbeydale, Gloucester, GL4 9XF. England.

FOR SALE: Cocoons of A. luna, A. io, and probably S. cynthia, C. promethea, and Papilio glaucus. SASE for prices. Larry J. Kopp, R.D. 1 - Box 30, Klingerstown, PA 17941-9718.

WANTED: Seeds or healthy rootstock of the following aquatic/water plants: Quillwort (Isoetes engelmanni), Giant Bur-Reed (Sparganium eurycarpum), Reed Grass (Phragmites communis), Saw Grass (Cladium jamaicensis), Mud Plantain (Heteranthera dubia), Water Oak (Quercus nigra), Sweet Gale (Myrica gale), Black or Red Mangrove (Avicennia officinalis?Rhizophora officinalis and Stratiotes aloides). ALSO WANTED: Seeds/Acorns of Evergreen Oak species. Especially myrtle oak (Quercus myrtifolia) and laurel oak (Quercus laurifolia). Contact: Randy Robinette, 4528 Hatfield Street, Ashland, KY 41102-9154 USA

FOR SALE: Light Traps, 12 volt DC or 110 volt AC with 15 watt or 8 watt black lights. Portable, easy to use traps. Rain drains and beetle screens protect specimens from damage. Request free brochure and price list. ALSO FOR SALE: Custom made light fixtures for permanent and/or stationary light traps. Stainless steel design; Mercury vapor, sun lamp, Black light and black light Dark; together or any combination; Electrical control with photo-cells and/or timers. Includes plans for enclosures with rain drains and sorting trays. For more information contact: Leroy Koehn, 6058 Campbell Rd., Mentor on the Lake, OH 44060; Phone 216-257-0796.

WANTED: Old entomology and/or biology books by such authors as the following: Eleazor Albin, William Distant, Dru Drury, Pliny (Natural Historie), Thomas Say, Adalbart Seitz, Otto Staudinger, Herman Strecker, Jan Swammerdam, James Thomson, and John Westwood. Other well-illustrated books considered. Also old herbals. Contact Tom Taylor, P.O. Box 8042, New Haven CT 06530.

FOR SALE OR EXCHANGE: *H. cecropia* cocoons . Call Nathan or Bob Barry 716-682-4285 Albion NY.

FOR SALE/EXCHANGE: Ova of the following *Catocala* species: *C. residua, retecta, relicta, grynea, gracilis, insolabilis, blandula, ilia, ultronia, andromedae,* and many others. Send SASE to Darryl Willis, 145 Westfield Drive, Holliston, MA 01746 for price list, or call 508-429-5378, or send fax to 508-429-0374. Ova will not be available after 5/10/93.

FOR SALE: Reared cocoons of Utah *Hyalophora gloveri* collected as last stage larvae on coyote willow and reared to pupatiuon on the same host. Also cocoons of *Eupackardia calleta* - fine cocoons from Eastern

Arizona stock. They were reared in late summer on Cheyenne privet which they consumed with mucho gusto. Write Bruce Duncan, 10132 Buttercup Drive, Sandy, Utah 84092 or phone (801) 571-6772.

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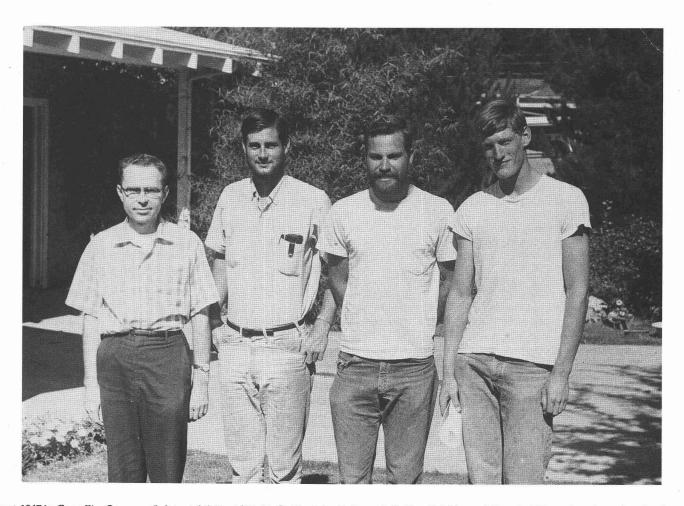
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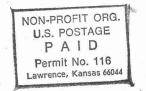
A Blast From the Past - Summer Safari



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DEADLINES: Material for the Jan/Feb issue should reach the NEWS EDITOR by 1 Dec of the previous year, and that for the Mar/Apr Issue by 15 Feb, for the May/June issue by 15 Apr and for the July/Aug issue by 1 June, the Sept/Oct issue by 15 Aug and the Nov/Dec issue by 15 Oct. Reports for the Season Summary must reach the Zone Coordinators listed on the front cover no later than 5 January. The NEWS Editor accepts articles in any format, but appreciates double-spaced typewritten copy accompanied by a computer disc in any DOS format. NEWS EDITOR is Stephanie McKown, 650 Cotterell Drive, Boise, Idaho 83709, USA. Phone (208) 323-9547. NEWS FROM EUROPE EDITOR is W.O. De Prins, Diksmuidelaan 176, B-2600 Antwerpen, Belgium. Phone 03/322.02.35 (from USA use 011/32.3.322.02.35). BOOK REVIEW EDITOR is Dr. Boyce A. Drummond, Natural Perspectives, P.O. Box 9061, Woodland Park, Colorado 80866, USA. Phone (719) 687-6596.

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, Robert J. Borth, 6926 N. Belmont Lane, Fox Point, WI 53217, USA, phone (414) 351-3816, the full dues for the current year, \$25.00 US, together with mailing address and a note about areas of interest in Lepidoptera; student membership (must be certified) \$15; sustaining membership \$35; life membership \$500. Remittances must be in US dollars, payable to the Lepidopterists' Society. All members will receive the JOURNAL (published quarterly) and the NEWS (published bimonthly). A biennial membership directory will comprise the last issue of the NEWS in even-numbered years.

Changes of address (permanent ones only), Additions or Changes in Telephone Numbers or Areas of Interest and Information about Mailing List Rental: Contact the ASSISTANT SECRETARY, Julian P. Donahue, Natural History Museum of Los Angeles County, 900 Exposition Blvd, Los Angeles, California 90007-4057, USA.

Information on Membership and other aspects of the Society must be obtained from the SECRETARY, Dr. William D. Winter, Jr., 257 Common Street, Dedham, Massachusetts 02026-4020, USA. Home phone (617) 326-2634.

Requests for Missed Issues (i.e. those not delivered although dues have been paid on time) should be sent to the TREASURER, Robert J. Borth, address above, or the PUBLICATIONS MANAGER, Ron Leuschner, address below. Defective issues will also be replaced by the TREASURER. <u>Do not request these of the NEWS or JOURNAL editors.</u>

Manuscripts submitted for publication in the JOURNAL are to be sent to Dr. John W. Brown, EDITOR, JOURNAL of the Lepidopterists' Society, San Diego Natural History Museum, P.O. Box 1390, San Diego, California 92112, USA. Work phone (619) 942-5147, home phone (619) 422-1846. See the inside back cover of a recent issue of the JOURNAL for editorial policies. Book reviews for the JOURNAL should be sent to Dr. Boyce A. Drummond, Book Review Editor (address above).

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- 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, \$8; non-members, \$12.
- 1992 MEMBERSHIP DIRECTORY (current to October 1992). Biennial directory of members and their addresses, with geographic and interest indices. Not available for commercial use. (NEWS #6 for 1992). \$5.00.
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