
KENTUCKY LEPIDOPTERIST

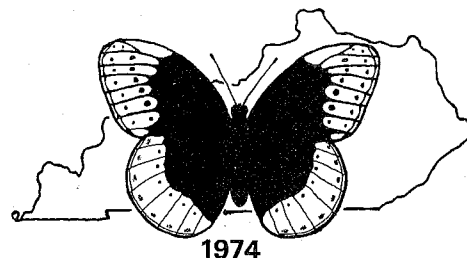
Newsletter of the Society of Kentucky Lepidopterists

VOLUME 17, NUMBER 4: OCTOBER 1991

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EDITORS' NOTES

I'd like to thank those of you who sent in items for the newsletter. A couple of articles must wait for the next issue. It would be nice to have even more. About a year ago I asked if there would be any persons interested in writing articles on specific taxa (large or small) so that we could run a regular feature. I've received a couple of requests for such articles but no volunteer authors. Are there any takers?

Take note of the annual meeting info immediately following this section. These plans were only recently finalized.

As always, submissions on any aspect of lepidopterology are welcome. Thoses using computers are requested to submit items on computer disk (either 5-1/4 or 3-1/2). The tentative deadlines for the next two issues are as follows:

18:1 January 15, 1992
18:2 April 15, 1992.

Please take note of the month change for 18:2. For items of a timely nature please keep in mind that the newsletter is delivered to the printer roughly one week after the deadline. It will then take about 4 working days to get into the mail.

PAUL OPLER TO HEADLINE 18TH ANNUAL MEETING

The 18th Annual Meeting of the Society will be held Friday night and Saturday, November 15-16. As usual, Friday night activities will be a party at the Covells', with informal slide fest. Time is 8-11 P.M. Place is 2333 Brighton Drive (Brighton at Montrose), Louisville, KY (Brighton Drive

intersects with Bardstown Rd., 2nd traffic light north of I-265 at Gardiner Lane Shopping Center). All family and significant others are invited! Bring any short slide program you wish to share.

Saturday morning at 9:30 AM we meet in Room 321, Life Sciences Bldg., at the University of Louisville. Bring items to be identified, and anything you wish to show, swap, or sell. Take the opportunity to view the University of Louisville Lepidoptera collection and things others bring. We will have coffee and doughnuts available.

At 1:00 we will have a short business meeting. President Roger Zebold will unfortunately miss the meeting, so it will be conducted by the Secretary/Treasurer. After a brief recess, we will proceed with a talk by Dr. Paul A. Opler, a "Kentucky Lepidopterist" since 1975. Paul will talk to us about "Difficult Identification Problems in Eastern North American Butterflies." He will also refer to progress on his totally rewritten and re-illustrated A Field Guide to the Butterflies of Eastern North America, which will replace the 1951 Klots edition. He is also an accomplished microlepidopterist, as well as author (with Dr. George Krizek, also a member of our club), of Butterflies East of the Great Plains. He was the pioneer entomologist in U.S. Office of Endangered Species before he moved up to another position with the Dept. of the Interior. Living in Fort Collins, Colorado, Paul is also an Editor of American Entomologist (magazine for members of the Entomological Society of America), a co-editor of the Xerces Society July 4th Butterfly Counts, an officer in AIBS, and a correspondent friend of Charlie Covell's dating back to the late '50s when we were budding bug enthusiasts.

Following Paul's talk and question, there will be our traditional open floor for short talks, slide presentations, and "show-and-tell" presentations by members present. We will also see a video about Butterfly World in Florida, thanks to Ron Boender. Then comes our annual Door Prize drawing (please contribute something for this). Afterwards we will adjourn to Masterson's Restaurant, where those wishing to will dine together.

This will be an excellent program, as any of you who have heard Dr. Opler before can attest. He, I, and others will be there to help you with any identifications or questions you may have about your butterflies and moths, or topics relevant to Lepidoptera. Please let me know of your plans to attend, and make every effort to join us! I will send maps and motel information upon request.

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A BUTTERFLY "BIG DAY"

by Mark Monroe and Burt L. Monroe, Jr.

In recent years, interest in butterflying (our term parallel to that of "birding") has increased to the point that the Xerces Society established the "Fourth of July" butterfly counts, with specifications and rules essentially the same as those for the Christmas Bird Counts. These bird counts were established almost a hundred years ago and have risen in popularity to the point that more than 1500 counts involving 50,000 birders are now taken annually during the Christmas vacation period; by comparison, the butterfly counts, centered around the Fourth of July, have been in existence only a few years, although we have taken at least one in Kentucky over the past three years.

For a good portion of the decade, we have traveled about Kentucky attempting

to cover all counties for butterflies. Generally, we cover two counties per day in the field, driving back roads at random looking for good butterfly spots. A good day in the early fall, and perhaps also in early summer, will yield a count of species in the 40's, similar to that achieved by several groups during the Fourth of July counts. It has occurred to us that about the only fun and competitive activity in birds that has not be duplicated in butterflies has been the birding "big day." During the peak of the spring migration in early May (the time of year with the potential for the maximum number of species of birds in Kentucky), individual groups attempt to list the greatest number of species in one day. The basic rules are that you must choose one calendar day, stay within the state, and stay together. A birding group will usually consist of 2-4 persons in one car, so that the "95%" rule can be met (every individual in the group must see or hear 95% of the total species, else the count total is reduced accordingly). This prevents the event from becoming a group affair like the Christmas counts by keeping the participants together. It is a most enjoyable and highly competitive event. Currently, the Kentucky record stands at 163 species of birds in a single day, set in May 1990.

August 3, 1991, started just like every other day that we were in the field butterflying. Our goal was to get a fall coverage for Logan and Todd counties in southwestern Kentucky. We early on suspected that the day might be special when the second butterfly of the day (following an early-flying Monarch at 8:30 a.m.) was an Olive Hairstreak that we collected crossing the road in Logan County. Shortly after that, following an expected individual Spicebush Swallowtail, the fourth butterfly of the day was a female Enodia creola sitting in the road that we also collected.

By noon we had finished our run through Logan and Todd counties and decided to drive into Christian County to have lunch at one of the favorite butterfly spots in Pennyrile State Forest (the well-known "Calephilus

muticum" spot, although it was too early for that species). By 2 p.m. our daily list was well into the 40s, and our plans had been to drive on to Fulton, Kentucky, spend the night, and bird and butterfly in southwestern Fulton County the next day. Instead, we decided to go to the Bayou de Chien spot east of Cayce, Fulton County, and see what was out at this date. By 3:30 p.m., the list was indeed impressive. So we spent the remainder of the evening along the levee south of Hickman, Fulton County, just to see what our daily total might be. The last species of butterfly, a Checkered Skipper, was added so near dusk that if it had been an Erynnis, we never would have seen it at all! The final total was 53 species, by far the highest we ever amassed in two days, let alone a single day. Other highlights of the day included two sizeable colonies of Erynnis baptisiae in Todd County, a high number of Atrytone Logan (9 individuals, recorded in all four counties), a beautiful Giant Swallowtail and a female Bronze Copper in one field in Todd County, and a remarkable array of satyr species (the only Kentucky species we did not record were Little Wood Satyr and Common Wood Nymph)!

So we are suggesting that a butterfly "big day" competition be started in Kentucky, using our total from August 3 as the initial goal. The following rules should be followed to insure fair competition: 1) parties must stay within sight or sound of one another when in the field; 2) all butterfly species must be positively identified, captured and viewed in the hand if necessary for identification, collected if an extreme rarity (collecting unknowns and identifying them later is permissible); 3) efforts must be made by party members to allow all other members to see each species (collecting in a net and allowing others to view the species alive is permissible); 4) the 95% rule must be met or the species total will be reduced accordingly (e.g., for the total of 53 to stand, each of us had to see at least 50 of these, which was the case); 5) any day may be chosen but all records must be within a single calendar day; 6) travel by any means is permissible (car, foot, boat, even

airplane), but all counting must occur within the state of Kentucky; 7) these rules must be read to all participants before the count begins, and each must sign an affidavit when complete that the rules were followed and the count is accurate. Big Day lists should be submitted to the editor of the Kentucky Lepidopterist; list totals, and if space permits, the lists themselves, will be published. At the moment, we believe the Kentucky records stands with this 53 total, which is higher even than group efforts on the Fourth of July counts. We challenge all Kentucky butterflyers to take a shot at the "big day" record!

The list, August 3, 1991: Epargyreus clarus, Achalarus lyciades, Thorybes bathyllus, T. confusus, Erynnis baptisiae, Pyrgus communis, Pholisora catullus, Ancyloxypha numitor, Hylephila phyleus, Polites themistocles, P. origenes, Wallengrenia egermet, Pompeius verna, Atalopedes campestris, Atrytone logan, Poanes zabulon, Euphyes ruricola, Battus philenor, Papilio polyxenes, P. crespontes, P. glaucus, P. troilus, Pontia protodice, Artogenia rapae, Colias philodice, C. eurytheme, Phoebis sennae, Hylolycaena hyllus, Mitoura grynea, Strymon melinus, Everes comyntas, Celastrina ladon, Libytheana bachmanii, Polygonia interrogationis, P. comma, Vanessa cardui, V. atalanta, Junonia coenia, Euptoieta claudia, Speyeria cybele, Phyciodes tharos, Charidryas nycteis, Basilarchia arthemis, astyanax, B. archippus, Asterocampa celtis, A. clyton, Enodia portlandia, E. anhedon, E. creola, Satyroides applachia, Clylopsis gemma, Hermeuptychia hermes, and Danaus plexippus. Notable misses: Erynnis horatius, Polites coras, Eurytides marcellus, Eureme nicippe, Vanessa virginianensis, Megisto cymela.

PRELIMINARIES TO STUDIES OF
LEPIDOPTEROUS GENITALIA by L. P. Grey

Responding to inquiries and requests I start here an informal review of techniques and materials used in preparing genitalia of

Lepidoptera. The topic, as a whole, would far exceed the space one could expect this Newsletter to provide. Broken up into a series, the subject of this first article will be confined to the preservation of data. Further notes on all the major procedures are planned to follow in later issues.

Although extensive literature is available, by leading experts such as McDunnough, Klots and numerous others, I have the temerity to think I can explain things better to beginners. My experience has been acquired the hard way, by many trials, mistakes and failures, over a long span of years. I find that the experts slight many things, perhaps as too obvious to mention, but nevertheless easy for an inexperienced amateur to stumble over. So, then, I shall try to be detailed, step by step, as I wish such guidance had been offered to me in the distant past. Details of labeling and notebook keeping, as a beginning, will risk seeming redundant or trivial to some members, but I am addressing the "never haves," who would "like to."

Any serious investment of time in this very time-consuming pursuit should result in permanent specimens, either on standard microscope slides (far to be preferred, in my opinion) or liquid-stored in vials (and thus adapted for three-dimensional manipulation). Scant attention will be given this latter methodology, which I personally detest. Plenty of information can be found in the literature and all desired examination of structures can be handled during and after dissections, before embalming in a slide. The point emphasized herein is that all acquired skill, and labor invested, will be wasted if specimens and their associated data, plus the genitalic preparations made from each cannot be reliably and quickly brought together.

At the very beginning, then, two types of labels should be prepared and ready, one to be added to the pin, on the abdomen-robed specimen, and the other to the finished slide or vial. These can be typed and reproduced in quantity on a copier, or

made on a word processor. To meet desirable requirements a method of reduction to 4-point type size or thereabouts will be needed.

The specimen labels should finish approximately 10 x 20 mm., conventionally not white (usually yellow), with fill-in spaces allowed for (1) the student's own catalog number (about this, more anon), (2) date when dissection was made, (3) the MONA number (for identification and filing) and (4) name of the preparator. In addition I usually write the genus and species name, and sex symbol on the reverse side of these specimen labels.

Slide labels should be printed on white gummed paper available at print shops. Additional to information just cited for the pin labels, spaces for customary data regarding derivations should be added, i.e., locality of capture, date and collector. In size, somewhat under 25 mm. (slide width) and ideally under 25 mm. in length, to allow ample room for specimen(s) and cover glass(es). Most workers apply these labels to the right-hand corners of their slides.

Having before one an insect ready for slaughter, the first step is to endow it with one of the described pin labels, on which has been entered the catalog number. Remaining data can be added later, when both insect and genitalia slide are done with and ready to file away. The catalog number is the linchpin on which all else can be hung. It ties with the slide label and equally importantly to a looseleaf notebook, the latter to be preserved as a lifetime record of every specimen one dissects, from number 1 onward. My personal, now very battered, notebook is snarled by reason of many donations and giveaways with substitutions made to fill empty niches in storage boxes. If starting anew I would follow my own present advice and keep strictly to consecutive numbering of every specimen dissected, labeled and cataloged. Arrangement in slide boxes now seems to me best handled by following the MONA numbering to which any scientific collection should be arranged.

In the notebook the entries from number 1 onward, should cite catalog number and sex, MONA number, genus and species (written out in full), some locality data (a minimum of STATE or Province, county and/or nearest town), date of capture, name of collector, name of preparator and date of dissection (to match that on the pin label). This information likely will not give all data available on the specimen labels or card indexes, but it will be sufficient for its purpose as a record. If slides are discarded or otherwise disposed of, their fate should be added here. Most of all, the notebook reaffirms and pulls together the data of slides and specimens, assuring correct associations when later studies and comparisons are to be made.

To conclude this subject of data preservation, small slips of bond paper are inscribed with specimen catalog numbers, using a firmly applied dark lead pencil. These slips accompany each abdomen through the first bath, of KOH, and all subsequent ones, or else are kept positively along with the proper abdomens in one way or another. This provides the indispensable tie to all the previously advised recording. One then is ready for the real business of preparing, dissecting, staining, etc., to be discussed in articles to follow.

A FEW FIELD NOTES FROM SUMMER 1991

By Brainard Palmer-Ball, Jr.

While engaged in field work for the Kentucky State Nature Preserves Commission during the summer of 1991, I recorded notes on some of the more interesting butterfly observations.

Autochton cellus was fairly widespread along Peyton Branch, several miles southeast of Pikeville, Pike County on 8 July. It was nice to see a half-dozen or more individuals of a butterfly I rarely see in Kentucky.

Heraclides cresphontes seemed particularly numerous during 1991. I saw individuals in the following counties in

June and July: Fayette, Franklin, Jefferson, Meade, and Trimble.

Phoebis sennae seemed to be widespread in the state this summer. An individual seen in Cumberland County on 18 June may have represented a new county record.

On June 25, I encountered a melanistic sulphur butterfly (Colias sp.) sitting on a road on the west side of Buck Creek, ca. 2.0 miles southeast of Valley Oak in eastern Pulaski County. The individual was so dark, that I could not determine its specific identity, but the entire underside of the wings was a dark, charcoal gray, with only the slightest hints of pale yellow. The uppersides were not seen clearly, but when the butterfly took wing, the entire upper wing surface appeared as dark as beneath. I suspect that the butterfly was C. philodice, but a few C. eurytheme were also present in the area. This is the first time I have ever knowingly encountered a melanistic butterfly.

On June 28, I was hiking along a logging road running beside Hawk Creek, some miles west of London, Laurel County and observed a hybrid Limentis archippus x arthemis astyanax. The individual was quite similar to a specimen I recall seeing in the University of Louisville collection some years ago. It was basically most similar to a Viceroy, but the orange of the uppersides of the wings was suffused with dusky color and the white spots at the apices of the forewings were orange and stood out as brighter than the orange of the rest of the forewings. The undersides were not seen well.

I observed Speyeria diana at numerous locations in southeastern Kentucky in June and July. A male observed along an old logging road ca. 2.0 miles SW of Powersburg, Wayne County on 20 June seemed a bit west of the normal range. In all of my previous observations of this species, I had never seen males and females on the wing in the same area during the same time, but this year I twice observed both sexes in the same area. On 27 June, I observed a male chasing

a female along an old logging road along Roaring Paunch Creek in southern McCreary County and another male was seen nearby along Otter Creek. On 28 June, I had the great fortune to find a somewhat worn male nectaring on the same milkweed flower as a fresh female and hopefully obtained photographs!

The summer of 1991 seemed to be a good one for Charidryas nycteis with good numbers present in the Bluegrass. On 5 July, I observed an impressive mudpuddle convention of 250-300+ C. nycteis with lesser numbers of swallowtails, sulphurs and Celastrina ebenina in rural farmland a couple of miles west of Millersburg, Bourbon County.

On 22 June, I saw something I had not seen for at least several years, lots of Clossiana bellona. The species was common in pastures and meadows on rural farmland west of Paris, Bourbon County. One was also seen near Ruddels Mill, Bourbon County on 5 July.

NEWS AND NOTES:

We are sorry to hear of the death of Bryant Mather's wife, Katharine, in February of this year.

John Fales writes that he has been tagging the silverspotted skipper, Epargyreus clarus, this summer, and got 8 and 10 day returns at his home in Maryland.

Dave Ahrenholz and Jeanne Marie Granberg were married in Long Lake, MN, on September 1. We wish you long and happy life together.

John Calhoun in Florida writes "I hope all is well up north. I wish I could attend your annual meeting (I really miss them). Tell everyone I said 'hello'."

A number of Kentucky Lepidopterists were among the 180 attendees at the 42nd annual meeting of the Lepidopterists' Society, Aug. 1-4, in Tucson, AZ. They include Karolis

Bagdonas, Charlie Covell, Tom Dooley, Tom Emmel, Irving Finkelstein, Olaf Mielke (Brasil), Jackie and Lee Miller, Paul Milner, Stan Nicolay, Bob Robbins, and Ben Ziegler.

Brian Scholtens wrote that he has "just started a new job as lab coordinator for the introductory biology labs this year so I still fell a bit snowed under. I think that will change as the term gets underway.

Rick Ruggles wrote recently to say he enjoyed Covell's reminiscence of collecting his first Speyeria diana female. The legendary aspects of female diana stem from William J. Holland's similar story found in his The Butterfly Book. That anecdote, plus equally fine ones in The Moth Book (especially that about "Sugaring for Moths,") have made Holland's books as enjoyable as they have been helpful to collectors and observers of Lepidoptera for nearly a century.

NOTICES

Wish to EXCHANGE for specimens of Calephelis muticum, particularly females. Can offer numerous species in return. Ronald R. Gattelle, 126 Wells Rd., Goose Creek, SC 29445.

I would like to obtain a copy of TREE & SHRUB INSECTS OF THE PRAIRIE PROVINCES by W.G.H. Ives and H.R. Wong. 1988. INFORMATION REPORT NOR-X-292. It was published by the Northern Forestry Centre, Canadian Forestry Service. It is no longer in stock. If anyone knows of a copy please contact Barry S. Nichols, 7004 Ethan Allen Way, Louisville, KY 40272.

Fine bait traps for sale. Normal, cone-type traps and a "tropical" type with a wide lip instead of a cone. They are 3 ft. high, 15 in. in diameter, and have a 22 in. access zipper and a 16 sq. in. plywood base. Those with cones have a cone opening of 4 inches. Cost is \$35.00 (plus \$3.00 shipping). Contact Chris Ward at 1474 Melbourne Dr. SE,

Girard, OH 44420, or call (216) 539-5374 for more information.

I wish to buy (or trade for) specimens of the following: Speyeria diana, Speyeria idalia, Celastrina ebenina, Celastrina neglecta-major, Polygonia faunus smythi, Sphinx franckii, Sphinx eremitus, Sphinx eremetoides, Sphinx lucitiosa, Sphinx drupiferarum, Callosamia securifera (cocoon & papered specimens of both brood forms), any Amblyscirtes spp., Lethe creola, Lethe portlandia. If interested please reply to Ira Nadborne, 1793 Riverside Dr. 2 I, New York, NY 10034, or call collect (212) 942-5721 and identify yourself as a Kentucky lepidopterist.

PUBLICATION FOR SALE: Buggy Books: A Guide to Juvenile and Popular Books on Insects and their Relatives by Gary A. Dunn. This unique reference provides information on 736 of the most significant "bug books" written for youth. The guide is invaluable to teachers, parents, naturalists, librarians, and entomologists. It includes titles, authors, publishers, dates, number of pages and illustrations, ISBN, price, age-appropriateness, contents, and quality/usefulness ratings. The titles are cross referenced by age-appropriateness, author, and subject. Cost is \$12.95, plus \$2.00 S&H. Make checks payable to the Young Entomologists' Society. Write Y.E.S., 1915 Peggy Place, Lansing, MI 48910-2553.

BUGGY TOYS FOR SALE: Don't be a humbug! We have a unique line of toys for girls and boys of all ages. Items include; books, resource guides, handbooks, project and collection aides, educational games, puzzles, insect puppets, stuffed animals, insect gliders, butterfly jewelry and crafts, and much more. For a free catalog write YOUNG ENTOMOLOGISTS' SOCIETY, 1915 Peggy Place, Lansing, MI 48910-2553.

PUBLICATION FOR SALE: International Entomology Resource Guide (Third Edition) is completely revised and updated. This guide includes over 550 businesses and organizations offering collecting equipment and supplies, insect traps, insect pins,

collection storage equipment, rearing equipment and supplies, microscopes, insect displays, insect gifts and novelties, and more. It also includes a worldwide listing of insect zoos, butterfly houses, and entomological organizations. Send US \$7.95 (foreign orders add \$2.95 for airmail delivery) to the Young Entomologists' Society, 1915 Peggy Place, Lansing, MI 48910-2553.

Back issues of the Kentucky Lepidopterist may be ordered by Volume # (or year) for \$5.00 per volume.

NOTICE: Society T-shirts are available still (sizes M, L, & XL). The cost is \$8 if mailed, \$7 if bought here at the meeting or during a visit. Order from Covell, address above.

NEW MEMBERS

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REINSTATED MEMBER

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The KENTUCKY LEPIDOPTERIST is the quarterly newsletter of the Society of Kentucky Lepidopterists. Membership dues are \$5.00. Contact: Charles V. Covell, Jr., Treasurer, University of Louisville, Louisville, Kentucky 40292.

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