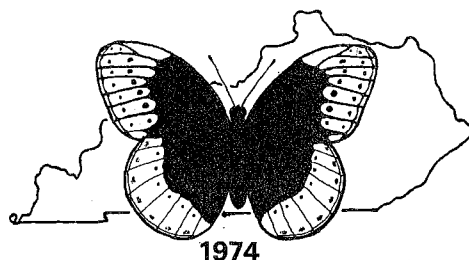

KENTUCKY LEPIDOPTERIST

Newsletter of the Society of Kentucky Lepidopterists

VOLUME 17, NUMBER 1: MARCH 1991

BARRY S. NICHOLS, Editor
7004 Ethan Allen Way,
Louisville, KY, USA 40272



EDITORS' NOTES

Nearly a third of the volumes of The Kentucky Lepidopterist have been indexed. I am still trying to determine what should be indexed and what shouldn't. It should be printed by June.

I still need to generate a backlog of articles for the newsletter. Many of you have discussed writing articles on taxa, habitats, collecting methods, etc. I welcome all contributions. The deadlines for the rest of Volume 17 are:

- 17:2 May 30, 1991
- 17:3 August 1, 1991
- 17:4 October 20, 1991.

Please note the deadline changes for 17:3 & 17:4.

The survey form mentioned in 16:4 has not been completed. In fact, I have received little input from members. It will be included with the next issue. Those of you with suggestions please write me at the address above or call (502) 583-5835.

Those of you submitting articles are encouraged to send your phone number (if available) to me with your article. I would also ask that those of you using computers send a disk copy. All disks will be returned.

NOTES ON THE USE OF HYPODERMIC NEEDLES

by Jonathan M. Kemp

Perhaps the single most useful piece of equipment that I use is the

small hypodermic needle. My favorite is the 3cc insulin needle that is available at any drugstore. Be prepared to explain what you are going to do with the needle because in this day and age the druggist is sure to ask! They are quite inexpensive and I recommend keeping several in your auto as well as one or two on your work table. You will most probably lose some needles in the field if you carry them in your shirt pocket as I do. The first and most obvious use is in fieldwork. A small shot of isopropyl alcohol in the thorax is a good way to kill a medium to large butterfly or moth. This method kills immediately and with no stiffening of the wings. Smaller specimens are best dealt with in another fashion as it is very hard to penetrate the proper depth with the needle and staining the wings is very easy to do. I have found that the best way to carry the needle in the field is in my teeth as this leaves both hands free to manipulate the net and corner the insect for the shot.

Another use for the needle is on the work table. I keep a needle charged with water at hand during all aspects of spreading. I have found that injecting a dried specimen with water before placing in a relaxing box will shorten the time in the box considerably. Also if a specimen has not relaxed quite enough to work, a little shot will soften him up enough to spread.

In addition, I use the needle as a tool for setting the wings with a little practice you can position the wings without piercing them or



damaging them in any way. If you notice that the needle is sharpened with a bevel on one side only, you can turn the needle different ways to obtain different results on the wings after pulling them to the board with paper or mylar or the material of your choice. Perhaps the most unusual use I have for the needle is in repairing antennae. If you push a tiny droplet of water out of the needle you will find that the club of the antenna will adhere to the needle. You can then apply a small amount of cyanoacrylate (super glue) to the insect and position the broken antenna to the insect. As the glue dries (usually quickly) it will overcome the light adhesion of the water and you can easily pull the needle off. This also requires a little practice but when done correctly works beautifully!. I hardly ever use tongs on my specimens when moving them or placing them in envelopes. If the insect is dried in the folded position, as most are, you can lightly push the needle into the thorax from the side, just below the base of the wing. This permits easy movement of the specimen for examination, classification, or just placing in an envelope. The needle can be easily removed by slightly twisting it out of the specimen. This technique works as well on fresh insects.

These are the uses that I have found for the hypodermic needles but I feel certain there must be more. If anyone has other uses I would love to hear from them.

YUCCA LOCALITIES NEEDED

by Olle Pellmyr

One of the finest examples of coevolution is the mutual dependence between yuccas and yucca moths (Tegeticula). The female yucca moth

collects pollen with special mouthparts, and painstakingly pollinates yucca flowers after having laid her eggs in them. The larvae rely on the resulting seeds for their development, but they only eat a small fraction of the developing seeds in a capsule. The remarkable behavior of the yucca moths was described by Charles Riley in the 1870s. It is a textbook example of coevolution. It is surprising then, to find that we actually have very little detailed information about the biology of these moths.

I am studying the biology of the yucca moths and their relatives, hoping to eventually understand the evolution of this highly specialized system. Although most yuccas grow in the southwestern deserts (where Jerry Powell has done some fine work), we actually have one species of yucca and two species of yucca moths here in the Midwest. Being new to this area, I need your help in locating yucca populations where I can start experiments next season. The yucca is introduced here, but the moth has colonized this and most other areas in North America where the plants are grown.

If you find a yucca stalk with seed pods, you can instantly tell if the true yucca moth, Tegeticula yuccasella (Riley) MONA 198, was there. About 45 days after flowering, the larvae leave the fruit to hibernate in the soil. The exit holes are a lasting legacy in the pods. In my experience, the moths are only missing from plants where obsessive-compulsive gardeners remove the flowering stalks before the larvae have completed their growth. (Note: one of the few stalks left over the winter in Cincinnati is located inside the tiger exhibit at the Cincinnati Zoo.

A bogus yucca moth (Riley's name), Prodoxus quinquepunctella (Cham.) MONA 200, usually accompanies Tegeticula. It does not pollinate flowers and the larvae feed and pupate in the flower stalk. In older stems, you may find many small exit holes in the upper section. This indicates Prodoxus was present. Obviously, if the stems are removed in the fall, sic transit gloria Prodoxus.

The adults are very easy to find. Look inside the flowers during the day and you may find the white moths huddling at the base of the flower parts. Tegeticula and Prodoxus are quite similar in general habit, and it will take some training to distinguish these species. Female Prodoxus lack the pollen ball and tentacle mouthparts and male Prodoxus are usually much smaller than conspecific females and all Tegeticula. The moths are active at dusk and early night, and will tolerate red light. How about joining the mere handful of people in our generation that actually have seen the behavior of these remarkable moths?!

My need is to get word of stands of accessible yuccas, perhaps escaped along a roadside, at an old homestead, etc. If the population has only a handful of flowering stalks, that is just fine, it will make some of the experiments easier to perform. You can rest assured that the moths will have found them even if there is just a single inflorescence. One obvious question is, how do they track down plants so well?

If you know of a patch of yuccas, however small, please let me know. If I hear about them before this summer, I can plan some experiments for June. Also, if members could keep their eyes open in

seasons to come, I'll always be interested in new localities. I can be reached at the Department of Biological Sciences, University of Cincinnati, Cincinnati, OHIO 45221-0006. My phone number is (513) 556-5696.

NOTES ON FLORIDA COLLECTING
RESTRICTIONS by Dave Baggett

I will try to provide updated information regarding the drastic shift in collecting policies which will severely restrict all collecting opportunities on most of Key Largo and Big Pine Key. Dr. Weems and I recently took time off from work to travel to Tallahassee to discuss the situation with District Biologists, whose current tack seems bent on making life miserable for insect collectors on all Florida parks in the near future. The sad thing is that they are aiming NOT at those who deserve blame for problems, but the ones who have gone through the trouble of obtaining proper permits and provided feedback.

The state has recently acquired much land in these areas. Collecting activity on all newly acquired state lands and existing Florida State Parks in the Keys is now strictly regulated by special permit only, and butterfly permits for this sensitive area will be next to impossible to obtain except for specialized research. No attempt has been made by Florida DNR to inform collectors about the policy and boundary changes. The Keys are sensitive not only because of rare butterflies, but also because they contain many additional restricted insects, other invertebrates such as the tree snails, rare mammals, and numerous rare plants. Park personnel have been besieged by all kinds of collectors. Keys rangers are upset

about the high level of illegal activity. Ignorance of the new regulations are not going to be taken lightly. If caught trespassing, fines will be given to anyone without the special permits. These permits must be obtained well in advance directly from the Keys Region District Biologist, Dr. Renate Skinner. No permits for simple insect collecting will be issued. Only permits for research purposes will be issued. No permits will be issued for the capture of restricted species. The reason for this is simple. Park personnel have no way of knowing friends from foes, nor do they have the time to accompany each collector to insure that truly restricted species are not being taken. Anyone on park premises in May is instantly assumed to be engaged in poaching activity for the Schaus Swallowtail.

The same basic policy is being applied to Big Pine Key and all adjacent federal or state owned public lands. A special research survey was performed by U.S. Fish and Wildlife Service on Big Pine Key to determine the status of Strymon acis bartrami and Anaea troglodyta floridalus at numerous sites containing plots of the host plant, Croton linearis, and the results showed a severe decline in the past two years for both species. As a result, diurnal insect collecting is viewed as aimed solely at these species, thus a policy similar to the one above is being adopted. The Key Deer Refuge manager is Deborah Holle, and again, permission to collect must be obtained well in advance and will not likely be given for butterflies.

If planning a trip to south Florida, I do not recommend including Key Largo or Big Pine Key in your plans. I hope to have maps of non-state owned properties as well as a

more precise update of the new rules and regulations.

NEWS AND NOTES

Loran Gibson is planning a field trip to south-central Kentucky during April. It is being planned for April 19-21 (weather permitting). There will be collecting Friday night in Holly Bay Camping Area at Laurel Lake Recreation Area. Collecting on Saturday will be centered around Blue Heron Campground at the Big South Fork Recreation Area. For more information contact Loran Gibson at 8496 Pheasant Drive, Florence, KY 41042.

A lycaenid, Icaricia icaricoides fenderi (Fender's Blue), thought to be extinct for more than 50 years has been rediscovered in the Willamette Valley in Oregon. The butterfly has not been seen since 1937. The decline of this species coincided with the decline of its foodplant, Kincaid's Lupine. The first colony rediscovered was found by Dr. Paul Hammond outside Corvallis. The colony has been estimated to contain about 600 individuals. Six small populations have since been found in Western Oregon.

Dr. Richard L. Brown has forwarded the following notice:

Correction to "Additions to the Kentucky List" in The Kentucky Lepidopterist 16 (3). Two species of Tortricidae, Pseudexentera escala Cho and Pseudexentera creta Cho, were reported as new to Kentucky. These two names were manuscript names in a dissertation that is in preparation for publication. The names of these species are now invalid as they have been published without a description,

and they must be removed from the Kentucky list. New names will replace creta and escala in a forthcoming publication on Pseudexentera. As borrowed material is sometimes returned before the publication is printed, it is essential that reports of new records or additions should be based on names that have appeared in publications rather than on names appearing on specimen labels.

A new society has been formed. The Association for Tropical Lepidoptera is dedicated to the biology, systematics, and conservation of tropical and subtropical Lepidoptera of the world. They publish TROPICAL LEPIDOPTERA which has fantastic color photography and highly informative articles. Dues are \$25.00. For more information write John B. Heppner, Association for Tropical Lepidoptera, c/o Florida State Collection of Arthropods, P.O.Box 1269, Gainesville, Florida 32602 or call (904) 372-3505.

Ron Boender wrote to say Butterfly World has formed an international Passiflora Society for those interested in that family for rearing Heliconius butterflies. For more information write to Ron Boender, 3431 N.E. 17th Terrace, Ft. Lauderdale, FL 33334.

You can now own a "diana orange" T-shirt (M, L, XL sizes), emblazoned with the Great Seal of the Society of Kentucky Lepidopterists. Steve Loftin, who did the Lepidopterists' Society shirts, made these. Material is a blend (he couldn't find all cotton in orange). To order, send \$10 to Charles V. Covell Jr., Dept. of Biology, University of Louisville, Louisville, KY 40292. Make check payable to Society of Kentucky Lepidopterists, and state quantity and sizes desired. You may wish to

include your order along with your 1991 dues.

NOTICES

Wish to EXCHANGE for specimens of Calephelis muticum, particularly females. Can offer numerous species in return. Ronald R. Gatrell, 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 \$1.80 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 (cocoons & 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.

NEW MEMBERS 17(1):

Becker, James W.
P.O. Box 13005
Hamilton, OH 45013

Becker, Larry
5903 Milburne Dr.
Milford, OH 45150

Bergson, Chuck
2206 Mt. Vernon St.
Philadelphia, PA 19130
phone: (215) 765-4365

Braeunig, Margaret
1028 Pritz Ave.
Dayton, OH 45410
phone: (513) 256-4715

Herig, Ted
8719 Shepardsville Rd.
Laingsburg, MI 48448

Pellmyr, Olof (Olle"), Ph.D.
Dept. of Biological Sciences
University of Cincinnati
Cincinnati, OH 45221-0006
phone: (513) 556-5696

Rockwell, Ronald F.
2700 Washington Ave., Apt. 1004
Cleveland, OH 44113
phone: (216) 696-2352

Mark Rzeszotarski
12811 Vincent Drive
Chesterland, OH 44026

phone: (216) 729-8102

81531 Curitiba, Parana
Brasil

Gary Wayner

Route 3, Box 18
Ft. Payne, AL 35967-9501
phone: (205) 845-7828

Kathy Wildman

3977 Condit Rd.
Sunbury, OH 43074
phone: (614) 965-2133

REINSTATED MEMBERS:

Alan D. Barron

2460 Maciel Lane
Crescent City, CA 95531
phone: (707) 464-9683

Thomas W. Carr

6626 Weckerly Dr.
Whitehouse, OH 43751

David K. Parshall

4424 Rosemary
Columbus, OH 43214
phone: (614) 262-0058

NEW ADDRESSES:

Dirig, Robert

P.O. Box 891
Ithaca, NY 14851
phone: (607) 272-0313 (H)255-7978

Kluesener, Andrew

2956 Harrison Ave., #4
Cincinnati, OH 45211

Gregory Miller

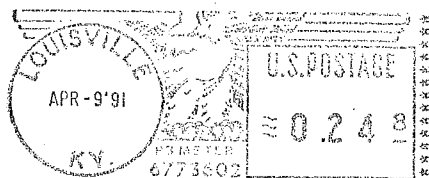
6509 Glendale Rd.
Louisville, KY 40291
phone: (502) 239-2048

Olaf H.H. Mielke (& Mirna Casagrande)

Depto. do Zoologia
Universidade Federal do Parana
Caixa Postal 19020

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.

KENTUCKY LEPIDOPTERISTS PRESORTED
Barry S. Nichols, Editor
Department of Biology, **FIRST-CLASS**
University of Louisville,
Louisville, Kentucky USA 40292



Loran D. Gibson
8496 Pheasant Drive
Florence, KY 41042
pd91

