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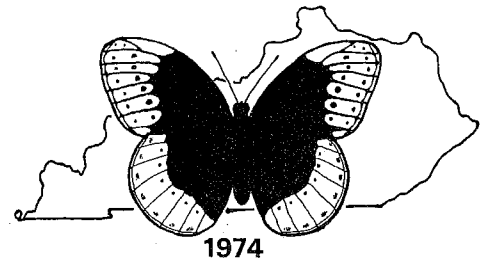
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# KENTUCKY LEPIDOPTERIST

Newsletter of the Society of Kentucky Lepidopterists

VOLUME 17, NUMBER 2: JUNE 1991

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



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## EDITORS' NOTES

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The writing of an index proceeds slowly. Some issues have a couple of hundred taxa listed. I hope to be finished this summer.

We are starting to receive some input for the newsletter. I really appreciate the help that many of you have given. We still don't have a backlog but we haven't had to combine issues yet either. Those of you who still contemplate writing an article or two are encouraged to do so. I would still like to have a regular column dealing with some taxon and describing identification characters, some life history, flight period, collection methods, and habitat. I think this would be extremely helpful and encourage some members to aid in increasing the knowledge of our fauna.

The deadlines for the rest of volume 17 and the first part of volume 18 (tentative) are as follows:

- 17:3 August 1, 1991
- 17:4 October 20, 1991
- 18:1 January 15, 1992
- 18:2 May 15, 1992.

Please note these dates for submission for the newsletter.

Due to the lack of interest (read that NO interest) the survey form mentioned in 16:4 and 17:1 was not printed. I'd rather not waste the paper if people aren't interested. If you have a differing opinion or would like to offer suggestions please write or call me at (502) 583-5835. My machine always answers so please speak after the tone and I'll pick up. It may shout some Monty Python at you first so be prepared.

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## FURTHER NOTES ON USING HYPODERMIC NEEDLES

by L.P. Grey

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Following on with J. M. Kemp's description of his uses of hypodermic needles (Ky. Lep. 17:1), I venture to add these personal notes:

The standard needle used by physicians in my area is 25 or 27 gauge, a bit large but good for relaxing sphingids, saturniids and other big game. The principal effort, I think, should be to avoid the almost inevitable staining and "soaking" which results if large and very dry specimens are left in a relaxing box until the wings become pliable. Legs and antennae will soften overnight but wings remain too stiff to work with. Then is the time the water injection "pays off". Hit "right between the eyes". With a bit of practice one will feel the needle entering the hollow area in the mesothorax. However, the injection can easily stain the specimen as would a long immersion in a relaxing box, so the technique requires care. Paper toweling should be used, grasping the insect's body after the injection to be sure any surplus water is absorbed. In addition, always pry open the wings a bit to be sure no drop has penetrated to the upper side of the thorax. If a drop has penetrated, puff away or remove with the toweling. Be very chary of the amount of water injected. Then put the specimen back in the original envelope for ten minutes or so. After this treatment, the largest, driest and most recalcitrant giants are amenable to be spread.

I never use a hypo on the smaller fry (noctuids, etc.); the old faithful relaxing box usually does everything needed to get out stored papered specimens with only occasional staining.



Skippers, blue butterflies and green geometrids need special expertise which might be aided by some injection technique (?) but I leave this to others, my expertise here being inconsequential.

For work with large specimens it might pay to buy a good glass plunger syringe, 2 cc. (Kemp's 3 cc. sounds like a biggie), to use exclusively for water injections.

Most of my work is done with 30 gauge needles. Pediatricians use them on small children. I would use 32 gauge needles if I could locate any. Also, I use the 1 cc. "throwaways" with rubber plungers. They can be used repeatedly if cared for properly.

This brings up the caution, omitted from Kemp's article. Hypodermic needles and syringes require some care. This is especially true when used, as I do, for work on genitalic dissections with various chemicals and dyes.

Contrary to what one might expect, the syringe should never be left to dry out, but always stored with fluid in the barrel. Even the all-glass types will "freeze". Any used with chemical solutions are also subject to clogging. These should be rinsed with a couple partial fillings of isopropyl alcohol and then partly filled with more of the same, for storage. This is all-important for the "throwaways" with rubber plungers. True, very fine wire cleaners are available from hypodermic supply houses, but the needles seldom clog if cared for as suggested.

My principal use of hypodermic needles, in making dissections for genitalic slides, is another topic. I hope to address this in an article to follow later.

#### SOME ADDITIONAL COMMENTS ON THE USE OF HYPODERMIC NEEDLES by Roderick R. Irwin

In Illinois the sale and use of hypodermic needles and syringes, and their possession, is rigidly controlled by state

statute. Exception is made for those engaged in "scientific research," but I don't know if the mere collecting of insects qualifies as such. A first conviction is a misdemeanor, but a second is a felony. As a research affiliate of the Illinois Natural History Survey, I've always believed (and hoped) that my own case fell within the research provisions of the law, but I hope it is never put to the test. I'm afraid that the definition of such research would be the prerogative of law enforcement authorities who might not be "gung-ho" vis-a-vis drug laws, but would also be ignorant of the nature of legitimate uses such as were ably put forth by Mr. Kemp. I'm particularly leery of the idea of the idea of "keeping several in your auto". As [Ky Leps] membership extends beyond the state of KY, this may well be a matter to consider.

[Ed. note: I too have been using hypodermics for some time. I must admit that I never thought that the possession and use of them may be illegal. It would be a good idea to check with the officials in your state before stocking up on needles for the collecting season. Remember too that many states have very broad laws regarding the possession of "drug paraphernalia". I called the state police here in KY and was told that while it may spark some concern with some officers that the use and possession of hypodermics for use such as that in Jonathon Kemp's article shouldn't cause major problems. I have been pulled over late at night in rural areas. Usually when I have told officers of my collecting activities it has raised a few eyebrows. Keep in mind that to many, "bug" collecting is an unusual activity.]

#### SPRING COLLECTING IN THE NEW JERSEY PINELANDS by Ira Nadbourne

The state of New Jersey has a diverse lepidopterous fauna. Habitats range from the Northern mixed pine-deciduous forests of the highlands, to the coastal plains, with its sand dunes community. Perhaps the most interesting is New Jersey's Pine Barrens.

The name Pine Barrens is really a misnomer, for this area is anything but barren.

The New Jersey Pine Barrens is a broad expanse of relatively level land covering approximately one and one third million acres (533,200 ha.). The Pine Barrens are actually located on the coastal plain between the tidal strip and the piedmont. The area is roughly eight miles (13 km.) long and 30 miles (48 km.) wide. It includes most of Ocean and Atlantic counties, much of Burlington county, and portions of Cape May, Cumberland, Gloucester and Camden counties. Fringes of Pineland extend into Salem and Monmouth counties.

The Pine Barrens has long attracted the interest of professional and amateur botanists. It is a major botanical treasure chest. Among its flora, are three of the four species of Pine in the United States that have the ability to sprout after being cut or burned. They include Pitch Pine (*Pinus rigida*), Short Leaf Pine (*P. echinata*), and the rare Pond Pine (*P. serotina*). Mixed in with the pines are another major feature of this area, oaks. Scrub Oak (*Quercus quilicifolia*), Blackjack Oak (*Q. marilandica*) and Post Oak (*Q. stellata*) are all to be found here. Another noteworthy feature in the pinelands is the presence of large stands of Southern (Atlantic) White Cedar (*Chmaeyparis thyodes*) and Eastern Red Cedar (*Juniperus virginiana*). The former is actually a southern species making inroads in a northern state. It is usually found in swampy localities. Other trees in the pinelands include Sour Gum (*Nyssa sylvatica*), Red Maple (*Acer rubrum trilobum*), and Sassafras (*Sassafras albidum*).

Of the many shrubs found here, there are four species of Blueberry (*Vaccinium* spp.), Sheep Laurel (*Kalmia augustifolia*), Mountain Laurel (*Kalmia latifolia*), Huckleberry (*Gaylussacia baccata*), Sweet Pepperbush (*Clethra alnifolia*), Steeple Bush (*Spirea* sp.), and Cranberry (*Vaccinium macrocarpon*). Flowering plants also abound in the pinelands. Twenty-six species of

orchids bloom here during the growing season. To mention all of the other plants would take a volume unto itself.

With this vast botanical diversity in mind, it would follow that a rich insect fauna would also be present. The lepidoptera are well represented. Each season produces its characteristic groups. Late Spring to early Fall is quite productive for moths (especially for night collecting). However, it is early spring that promises the most interesting butterfly collecting in the pinelands. Such classic collecting localities as Sandy Hook State Forest (Monmouth Co.), Lakehurst (Ocean Co.), Bass River State Forest (Ocean Co. & Atlantic Co.) Lebanon & Wharton State Forests (Burlington Co.), Warren Grove (Ocean Co.), and Assunpinck Wildlife Area (Monmouth Co.) all come alive with butterflies from late April to mid May.

Lycaenidae head the list of spring butterflies including five elfins (*Incisalia* spp.), four hairstreaks (two *Mitoura* spp., one *Calycopsis* sp. and one *Strymon* sp.), three blues (two *Celastrina* spp. and one *Everes* sp.), and one copper [(*Lycaena phyleus* (Dru.)(4013)]. The Falcate Orangetip [*Falcapica midea annickae* dos Passos & Klots (4207)] is to be found here but in smaller numbers than in more mountainous localities. Early Orange Sulphurs [*Colias eurytheme* Bdv. (4210)] are quite common. *Erynnis* species include Sleepy Duskywing [*E. brizo* (Bdv. & Leconte)(3946)], Juvenal duskywing [*E. juvenalis* (F.)(3947)], and Icelus duskywing [*E. icelus* (Scudder & Burgess)(3945)]. Early Pearl Crescents [*Phyciodes tharos* (Dru.)(4481)] are found along swamp edges. Two choice species, the Indian Skipper [*Hesperia sassacus* Harr. (4033)], and the Cobweb Skipper [*H. metea* Scudder (4027)] alight on bare patches amongst the grasses. Add to this, the occasional early swallowtails and hibernating nymphalids; i.e., *Nymphalis antiopa* (L.)(4432), *Polygonias comma* (Harr.)(4421), *Polygonias interrogationis* (F.)(4420) and *Vanessa atalanta* (L.)(4437), and you have the makings of a productive collecting trip.

Hessel's Hairstreak [Mitoura hesseli Rawson & Ziegler (4319)] is one of the prizes to be collected in the pinelands in early May. This species was discovered as recently as 1950 by the amateur collector, Sidney Hesel. For years, it was confused with its cogenor, the Olive Hairstreak [Mitoura grynea (Hbn.)(4318)] which it closely resembles. M. hesseli feeds on White Cedar and thus is to be found near the White Cedar Swamps. Such swamps are to be found near Chatsworth in Burlington Co. (8 mi. SE of the junction of State Roads 72 & 532). Adjacent to this swamp is a huge field of blueberries. The year 1990 saw a population explosion of M. hesseli at this locality. The warmer than normal temperatures produced an early hatch. From April 27 to May 2, this butterfly flew in record numbers. They actively feed when the sun is low in the sky (from 3 to 6 p.m.), with blueberry being the choice nectar source. When feeding, M. hesseli is docile and quite easy to capture and photograph. This same locality held both typical and atypical Celastrina ladon (Cram.)(4363) forms, marginata and violacea, and some curious forms which approached C. neglecta-major. The latter have pale, almost white undersides with prominent black spotting. It should be remembered that C. neglecta-major, called the Appalachian Blue, is supposed to fly between the broods of C. ladon (Spring Azure). These individuals are almost an exact match with C. neglecta-major individuals in my collection.

About two miles due south of the junction of State Roads 72 & 532 are huge stands of pines with a ground cover of Bearberry (Arctostaphylos uva-ursi). It is here that one may encounter the Hoary Elfin (Incisalia polios) as it swarms over its food plant. In 1990, this species was more prevalent than in previous years.

As you travel south along State Road 539, you eventually arrive at the typical pinelands town of Warren Grove. On either side of this quiet town are two excellent collecting sites. Two miles north of Warren Grove is yet another vast White Cedar swamp, with large stands of blueberries and Sand

Myrtles (Leiophyllum buxifolium) forming the understory. At this site, specimens of P. tharos, E. b. brizo, E. juvenalis, and more of the Celastrinas (all forms) may be found. Also present is a nice colony of the Brown Elfin [Incisalia augustus (Kby.)(4322)]. Two miles south of Warren Grove, just off Route 539, is a unique Pine Barrens feature, the dwarf or elfin pine forests. And, to no surprise, this is the haunt of yet another elfin, the Pine Elfin [Incisalia nippon (Hbn.)(4328)]. As one approaches the stunted pines (8 to 10 ft. in height), one may see male Pine Elfins on the lower branches. Startled into activity as you walk by, these butterflies fly in endless circles only to re-align on the same branch tip. The females are to be found higher up near the apex of the trees. Numbers of Pine Elfins come down to feed on the low growing flowering plant, Pyxie (Pyxidantha barbulata). On one such patch, of about one square foot, as many as 25 individuals were observed in a feeding orgy!! (It made a nice photo.) Here too several E. brizo were seen feeding.

At Sandy Hook State Park in Monmouth Co., one enters the largest Holly forest on the east coast. Red Cedar is also present in substantial stands. This area holds a large colony of Henry's Elfin [Incisalia henrici (G.& R.)(4326)]. The larvae feed upon the American Holly (Ilex opaca). Also present is a nice colony of the Olive Hairstreak (Mitoura grynea) whose larvae feed on Red Cedar.

The town of Lakehurst, off Rt. 70 in Ocean Co., is famous for its aviation history. This is the home of the once majestic zeppelins. However, they are not the only flying objects to come from Lakehurst. The local lepidoptera are quite numerous. About one mile north of the tragic Hindenberg crash of 1937, is a vast field of Red Cedar. Mitoura grynea literally swarms here. On April 27, 1990, Harry Zirlin (A fellow KY LEPS member) and myself, counted over 200 individuals happily nectaring on one Sand Myrtle Bush.

The Frosted Elfin [I. i. irus (Godt.) (4325)], is the most elusive and local of the pinelands elfins. After three years of searching, with the help of yet another KY LEPS member, Chuck Bergson, we were able to locate an active colony of this spring beauty. Assunpinck Wildlife Area in western Monmouth Co., is a fringe pinelands area with mixed oaks, maples and birch. There are large open fields with bare patches of ground. Along the sandy trails is tall Beach Grass (Andropogon sp.). Both Wild Indigo (Baptista tinctoria) and Lupine (Lupine pereanis) grow here in large clumps. These are the food plants of I. irus. The Indian Skipper (Hesperia sassacus) and the Cobweb Skipper (H. metea) may be found on the bare sandy patches. The larvae of both species feed on Beard Grasses. This colony has done quite well here. The numbers of I. irus here have increased over the past three years.

As you can see, the New Jersey Pine Barrens are an excellent choice for early Spring collectors. For those of you who can't wait for summer, the following species have been taken at these respective localities:

Lakehurst Bogs = Euphyes bimacula (G. & R.) (4077)  
E. conspicuus (Edw.) (4075)  
Neonympha areolata septentrionalis Davis (4576)  
Satyroides appalachia (R. Chermock) (4569)  
Epidemia epixanthe (Bdv. & Leconte) (4260)

Lakehurst Red Cedar Fields = Hesperia attalus (Edw.) (4029)

Assunpinck Wildlife Area = Euphyes dion (Edw.) (4072)

#### NEWS AND NOTES

We are sorry to hear of the recent death of Patrick Lawler's mother.

Cecropia moths have been emerging from cocoons which resulted from larvae reared at U. of Louisville last summer. Several wild individuals have also turned up in the Louisville area, most recently on May 29.

This seems to be a very "buggy" year so far; so get into the field.

Speaking of the field, Covell is planning to conduct the 5th Xerces Society Butterfly Count at the Horner Wildlife Area near Brownsboro, Oldham Co., KY on Saturday, June 22. HE NEEDS PARTICIPANTS. If it is rainy, the alternate date is the following Saturday, June 29. If interested, contact Charles Covell at (502) 456-6122 (home, after 6:30 PM) or (502) 588-6771 (University of Louisville). Tentatively, we will meet at the General Store at Brownsboro, off Interstate 71 (Crestwood-Pewee Valley exit, #14) at 9:30 AM and collect until 4:00 PM. Butterfly watchers and photographers welcome. Let's have a good turnout. There will also be blacklighting for moths at night for those interested.

Loran Gibson was not joined by anyone when he had his April 18-19 field trip in Laurel Co., KY. He had fine luck, adding Orthofidonia flavivenata (Hulst) (6430), to the state list. He also recorded the following butterflies in Laurel Co. that weekend: Epargyrus clarus (Cram.) (3870), Erynnis juvenalis (F.) (3947), Amblyscirtes vialis (Edw.) (4105), Battus philenor (L.) (4157), Eurytides marcellus (Cram.) (4184), Papilio glaucus L. (4174), P. troilus L. (4181), Falcapica midea (Hbn.) (4207), Pieris virginensis Edw. (4196), Colias philodice Godt. (4209), Incisalia augustus (Kby.) (4322), I. nippon (Hbn.) (4328), Parrhasius m-album (Bdv. & Leconte), Calycopis cecrops (F.) (4299), Celastrina ladon (Cram.) (4363), Vanessa virginiensis (Dru.) (4434), Phyciodes tharos (Dru.) (4481), Cylopsis gemma (Hbn.) (4573), and Danaus plexippus (L.) (4614). He also took some Feralia comstocki (Grt.) (10008) at light, and found the sphingid Amphion floridensis B.P. Clark (7873) nectaring on Pinxter-flower azalea. He also collected 43 species of Tortricidae (Olethreutinae) at his mother's home in Booneville, Owsley Co., on one night this spring!

Jim Bess has left the University of Louisville to attend graduate school at the University of Montana. Before leaving, he

recorded the skipper Hesperia metea Scudder (4027) in Bullitt Co., at the newly formed Pine Creek Nature Preserve, a remnant prairie habitat near Shepherdsville.

This is T-shirt weather, and we have the official KY LEPS T-shirts in orange with decal design on the upper left. Sizes M, L, XL are available. The price is \$8.00 post paid surface mail in the U.S. Order from Covell at the University of Louisville.

News concerning the annual meeting will be included in the next (17:3) newsletter.

#### 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.

**NEW MEMBERS**

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Clell Peterson  
901 N. 18th St.,  
Murray, KY 42071  
(502) 753-3505

**NEW ADDRESSES**

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Vincent Golia  
5250 Jog Lane,  
Delray Beach, FL 33484

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**  
Barry S. Nichols, Editor  
Department of Biology,  
University of Louisville,  
Louisville, Kentucky USA 40292

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

