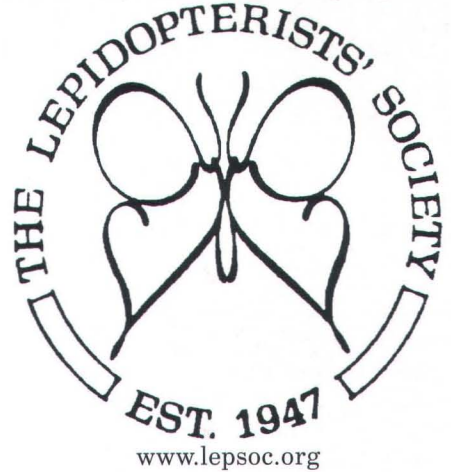


NEWS

OF THE

LEPIDOPTERISTS' SOCIETY

Volume 45, Number 1 Spring 2003



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NEWS OF THE LEPIDOPTERISTS' SOCIETY

Volume 45, No. 1 Spring 2003



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The Lepidopterists' Society is a non-profit educational and scientific organization. The object of the Society, which was formed in May 1947 and formally constituted in December 1950, is "to promote internationally the science of lepidopterology in all its branches; to further the scientifically sound and progressive study of Lepidoptera, to issue periodicals and other publications on Lepidoptera; to facilitate the exchange of specimens and ideas by both the professional worker and the amateur in the field; to compile and distribute information to other organizations and individuals for purposes of education and conservation and appreciation of Lepidoptera; and to secure cooperation in all measures" directed towards these aims. (Article II, Constitution of The Lepidopterists' Society.)

The **News of the Lepidopterists' Society** (ISSN 0091-1348) is published quarterly by The Lepidopterists' Society, c/o Los Angeles County Museum of Natural History, 900 Exposition Blvd., Los Angeles, CA 90007-4057, USA., and includes one or two supplements each year. The **Season Summary** is published every year as Supplement S1 and is mailed with issue 1 of the News. In even numbered years a complete **Membership Directory** is published as Supplement S2 and is mailed with issue 4 of that volume of the News. Please see the inside back cover for instructions regarding subscriptions, submissions to, and deadline dates for, the News.

Application to mail at Periodicals Postage rates is pending at Los Angeles, CA and at additional mailing office (Lawrence, KS).

POSTMASTER: Please send address changes to **News of the Lepidopterists' Society**, c/o Los Angeles County Museum of Natural History, 900 Exposition Blvd., Los Angeles, CA 90007-4057.

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Issue Date: Apr. 15, 2003

ISSN 0091-1348

Cover: *Acherontia atropos*, the Death's Head Hawkmoth. The larva and additional views of the adult are illustrated on the back cover. Photos by Axel Steiner. See *Tails & Tales* by Pat Durkin (pp. 15) for the whole sordid story!

The Fiery Skipper (*Hylephila phyleus* Drury) in North Central New York

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The fiery skipper (*Hylephila phyleus* Drury) is described as a denizen of subtropical and tropical habitats that appears northwards as an immigrant (Opler & Malikul, 1998). In Eastern North America this skipper has been regularly recorded in southwest Ontario and periodically occurs as far north as Toronto (Layberry, Hall & Lafontaine, 1998). The presence of *H. phyleus* in southeastern New York State is well-documented (Shapiro, 1974; Cech, 1993; Opler, Pavulaan and Stanford, 1995).

However, its presence in Central New York is uncertain. Shapiro (1974) cites only two occurrences in Central New York and *H. phyleus* is absent in the *Lepidopterist's Society Season's Summaries* in Central New York from 1979 to the present excepting for a record in 2000 submitted by MH. The distribution map in Scott (1986) includes their presence in central New York State while field guides such as Opler and Malikul (1998) and Glassberg (1999) do not. Here we report on consistent occurrences of *H. phyleus* in one location in northern Central New York.

The Rice Creek Field Station (RCFS) is a 130 Ha preserve located in the Lake Ontario Plain ecozone, 2.4 Km from the south shore of Lake Ontario, in Oswego County, New York. We have been systematically censusing 6000 M of transects by the Pollard (1977) method on the RCFS grounds since 1996, a total of 996 census hours.

We have documented *H. phyleus* on the field station grounds in each year since 1999 (Figure 1 (pp. 4), Table 1). The appearance in 1999 was also the year

Table 1. Relative Abundance (Count) of Fiery Skippers on the Rice Creek Station Grounds: 1999-2002. Dashes indicate dates not sampled.

Sample Date	-----Year and Count-----			
	1999	2000	2001	2002
8/21	-	-	-	0
8/22	0	0	1	-
8/25	0	-	-	0
8/26	-	-	0	-
8/27	-	0	-	-
8/28	-	-	-	0
8/29	0	-	-	-
8/31	-	0	-	-
9/1	-	-	-	0
9/2	-	-	0	-
9/3	-	0	0	-
9/4	0	-	-	-
9/8	-	-	0	0
9/10	-	0	-	-
9/12	6	-	-	0
9/14	-	0	-	0
9/16	-	-	0	0
9/17	-	0	-	-
9/19	6	-	-	-
9/21	-	-	-	0
9/23	-	-	1	-
9/26	5	-	-	-
9/28	-	-	-	0
9/30	-	-	1	-
10/1	-	1	0	0
10/2	8	-	-	-
10/3	-	-	0	-
10/6	-	-	-	1
10/9	2	-	-	-
10/10	-	-	0	-
10/12	-	0	-	-
10/13	-	-	0	-
10/14	-	0	-	-
10/16	2	-	-	-
10/20	-	0	-	-

of greatest abundance. The earliest occurrence was in mid-August; most records were clustered from mid-September to early October and none have been recorded past mid-October. These data are fairly consistent with *H. phyleus* phenograms for New York State given in Glassberg (1999). *Hylephila phyleus* has appeared at several locations on the RCFS grounds, but always in lawns or mowed fields.

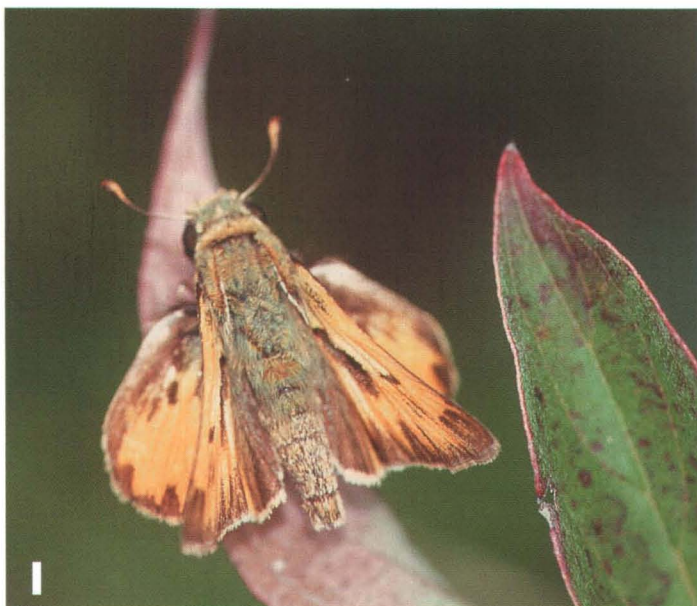
We tested the hypothesis that the number of *H. phyleus* was related to the general level of immigration by other species. Following Swengel's (2002) criteria we classified 13 species as immigrants. Table 2 compares yearly total counts for *H. phyleus* to that of the count of immigrants and immigrant species. *Hylephila phyleus* counts were positively related to the number of immigrant species (Kendall's rank correlation: $\tau = 0.714$, $N = 7$, $z = 2.253$,

continued on next page...

Table 2. Total Counts of Fiery Skippers, Immigrants and Number of Immigrant Species: 1996-2002.

Year	Fiery Skippers	Immigrants	No. of Immigrant Sp.
1996	0	8	4
1997	0	42	3
1998	0	32	3
1999	29	54	8
2000	1	180	4
2001	3	704	8
2002	1	25	6

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Fiery Skippers in Central New York

1. 19 Sept. 1999, male in middle field. 2. 1 Oct. 2000, female captured in lower field. 3. 23 Sept. 2001, male in lawn. 4. 6 Oct. 2002, male in middle field. Photos by Nicholas Weber.

$p = 0.024$), but not to counts of immigrants (Kendall's rank correlation: $\tau = 0.429$, $N = 7$, $z = 1.352$, NS).

The large majority of the field station is wooded: less than 2% (2.5 Ha) is in open habitat suitable to *H. phyleus*. These open areas provide a small target, relative to the extent of woods, for immigrating *H. phyleus*. In view of their regular appearance in the small patches of suitable habitat on the field

station grounds, it seems likely that this skipper is more widespread in the Lake Ontario Plain ecozone. If so, the general lack of records in Central New York might be due more to undersampling rather than to the actual species absence.

Acknowledgements

We thank Joseph LeFevre for converting our slides into prints and Ampalavanar Nanthakumar for statistical advice. Andrew Nelson

and Suzanne Weber read drafts of the manuscript, we are grateful for their comments. The study was supported in each year by a small grant from the Rice Creek Associates to PW and MH; we are appreciative of their support.

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continued on pp. 7



Texas Rarities...

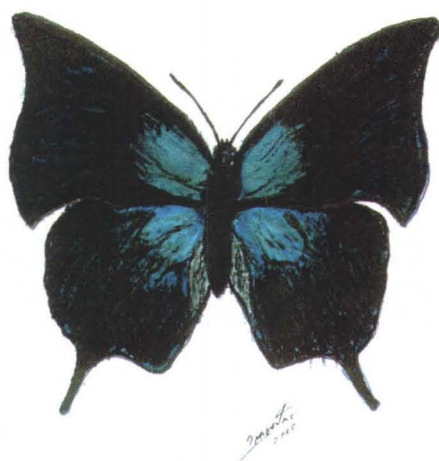
See Ro Wauer's article on the next page.

1. Brown-banded Skipper; 2. Dion Skipper; 3. Osca Skipper; 4. Gray Cracker; 5. Liris Skipper; 6. Purple Dingywing; 7. Double-spotted Skipper; 8. Pale-rayed Skipper. All photos by Ro Wauer, except 6 by Jimmy Jackson.



Memphis arginussa eubana, Costa Rica

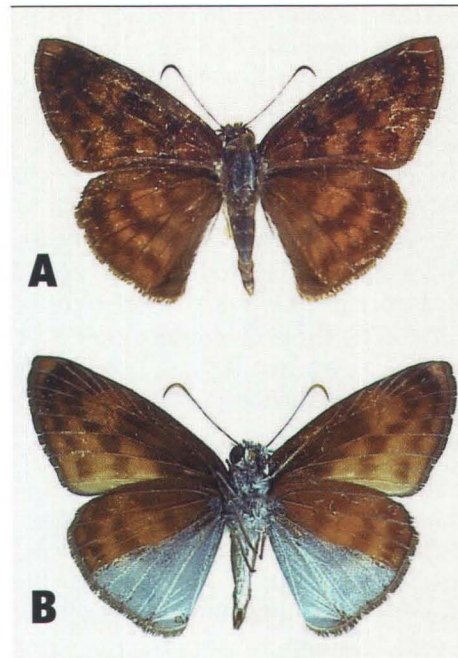
Photo by Eduardo Chumpitasi. The specimen was collected in a bait trap on his property at Los Angeles de Santo Domingo, Heredia, Costa Rica at 1260 M elevation.



Artwork:

Memphis lankesteri, Costa Rica

Ink and water color drawing by Jorges Montero-Moreno. See his article about this species on pp. 17



Anastrus sempiternus in Texas.

A. ups; B. uns. Photos by Ed Knudson. See the article on pp. 7.

Rare & Unusual Texas Butterfly Records

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While visiting numerous sites in preparation for a Texas butterfly site guide, I chanced upon several butterfly species that represented either range extensions or increased knowledge of little known species.

***Eunica monima* (Dingy Purplewing).**

There are three mid-summer 2002 records: On 11 July, I encountered this butterfly perched on a *Parkinsonia aculeata* on Magic Ridge, Calhoun Co. It flew before I was able to obtain a photo, and I was unable to relocate it, in spite of trying two other times during the day. Two days later, 13 July, Derek Muschalek discovered one near Yorktown, DeWitt Co.; it was photographed by Ken Mueller. Six days later, on 20 July, one was discovered by Paul Miliotis and photographed (Fig. 6, all figures are on pp. 5) by Jimmie Jackson in Live Oak County.

Eunica monima is a Mexican species that is known to have periodic migrations when it may reach Texas, but the majority of those records are from the Lower Rio Grande Valley in Cameron, Hidalgo and Starr counties. It also has been taken along the Rio Grande north to Maverick, Kinney and Val Verde counties, and there are lone records for Ector, Uvalde, Travis, Fayette and Dallas counties, in central and northern Texas (USGS website 1993). The three new records are from counties where it has not been previously reported.

***Hamadryas februa* (Gray Cracker).**

An individual photographed (Fig. 4) in my back yard near Mission Valley, Victoria Co., on 3 Aug. 2002, represents the northern-most record of this Mexican species. It initially appeared at a bait station and remained about 3 hours before flying away. The species is considered an uncommon but regular

stray in Cameron, Hidalgo and Starr counties, and there also are lone records for Nueces and LaSalle Counties (Stanford and Opler 1993).

***Timochares ruptifasciatus* (Brown-banded Skipper).**

One photographed (Fig. 1) at Hazel Bazemore Co. Park near Corpus Christi, Nueces Co., on 30 Oct. 2002, is only the fourth record north of Cameron, Hidalgo and Starr counties. The other northern records include those from Kleberg, Kerr, and Brazoria counties (Opler, Sanford & Pavulaan USGS website). The Bazemore individual, along with five *Achlyodes thraso*, was nectaring on *Salvia ballotiflora*.

***Vidius perigenes* (Pale-rayed Skipper).**

One photographed (Fig. 8) at Santa Ana Natl. Wildlife Refuge (SAWR), Starr County, on 28 June 2002, provides an additional record of this Mexican species that has been recorded in the United States less than 20 times (Stanford and Opler 1993). According to Ed Knudson, this skipper is "locally common in the appropriate habitats around bunch grasses growing along canals and on clay lomas near Brownsville" [Cameron Co.].

***Lerema liris* (Liris Skipper).**

One photographed (Fig. 5) at SAWR on 28 July 2002, represents only the fourth U.S. record of this Mexican species. The photograph was identified by Andrew Warren. Previous records include those from Hidalgo and Starr Counties, and there also is a lone more northern record for Brazoria County (Opler, Sanford, and Pavulaan USGS website).

***Rhinthon osca* (Osca Skipper).**

One photographed (Fig. 3) in my yard near Mission Valley, Victoria Co., represents a significant range extension for this Mexican species. All other U.S.

records are from Hidalgo County (Stanford and Opler 1993, USGS website). My photograph was identified as a male *Rhinthon osca* by Andy Warren in February 2001. He wrote that "it makes the first record for Victoria Co., and one of apparently only 2-3 records from the USA." Hostplants for this species include grasses; Knudson (pers. com.) took a specimen from near a sugar cane field in Hidalgo Co.

***Decinea percosius* (Double-spotted Skipper).**

One photographed (Fig. 7) at Sabal Palm Audubon Sanctuary, Cameron County, 30 Nov. 2000, adds to the database for this Mexican stray. According to Ed Knudson, the species is "not rare, but seems to have defined spring and fall broods in Cameron County." All earlier records are from Cameron and Hidalgo Counties, except for one from Nueces County (Opler, Sanford, and Pavulaan USGS website).

***Euphyes dion* (Dion Skipper).**

Two of three individuals photographed (Fig. 2) in McLennan County on 1 Oct. 2002, represent range extensions west of their already known range. This species has been recorded on many occasions in northeast Texas, from Tarrant County east to the Louisiana border (Stanford and Opler 1993). These individuals were found on *Carex* sp. along the Brazos River in Waco's Cameron Park.

Acknowledgements

The image of the DeWitt Co. Eunica monima was verified by Nick Grishin, Ed Knudson, Mike Overton, and Mike Quinn. The images of Vidius perigenes, Lerema liris, Decinea percosius, and Rhinthon osca were identified by Andy Warren. The image of Euphyes dion was verified by Knudson. Their assistance was very much appreciated.

continued on pp. 9

Butterfly Murals

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I've been a dedicated entomologist for as long as I can remember but these days I pursue my passion as an amateur conducting mark-release-recapture studies on eastern tiger swallowtails. In my youth I made extensive trips to the tropics amassing a considerable collection, much of which is now at the Peabody Museum of Natural History at Yale University.

For a living, I am a painter. I own a company that not coincidentally is called Monarch Painting (our motto is "metamorphosis is our business"). With my helpers we specialize in decorative painting techniques including historic stencil replication for the state of Washington and wood-graining a National registry house for the National Park Service.

Many years ago I took to signing my jobs with a Monarch butterfly painted somewhere in a clients home. This conceit generated considerable enthusiasm that evolved into requests for full-blown butterfly rooms, featuring the native flora and fauna of Connecticut. The style is not scientific illustration but is naturalistic in intent, accurately portraying individual species and their life histories. The migration of Monarchs is a favorite theme.

My projects are quite educational since they have several times been featured in articles in regional and local newspapers that, in turn, generated public awareness of the Monarch problem. It is a tremendous personal gratification to express my love of Lepidoptera with a brush, share it prolifically and also educate people.

Editor's Note: Victor would be happy to accept commissions for painted butterfly rooms, can travel anywhere, illustrate any fauna and work in public or private spaces. He says the murals are durable and color fast. See more of his artwork at www.monarchpainting.net or contact him at victormonarch@yahoo.com

Anastrus sempiternus Butler & Druce, a New Record for Texas and the USA

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Anastrus sempiternus is a fairly widespread tropical American skipper, which was originally described from Costa Rica. The nominate subspecies is distinguished by having blue on the posterior third of the hindwing underside. It occurs from Mexico to Brazil, mostly in seasonally dry tropical forests. The Hispanolan subsp. *dilloni* Bell & Comst., has been reared on Guava (*Pisidium guajara*), Myrtaceae and in Brazil, it has been reared on this and *Eugenia* sp. (same family). Roy Kendall, 1978, found larvae on Tropical Almond (*Terminalia catappa*), Combretaceae, at Cd. Mante, Tamps. Mexico, and reared some to adults. This species has been referred to in the literature as the "Tropical Duskywing" (Warren & Llorente, 1999).

On Oct. 29, 2002, a fresh male, nectaring on *Eupatorium odoratum* (Blue Boneset), Asteraceae, was collected at Ft. Ringgold, Rio Grande City, Starr Co., TX., by Charles Bordelon (see photos on pp. 5). The species perches much like the common *Achalarus tamnund*. A second specimen was collected

at the same locality on Nov. 10, by Leroy Koehn. This would seem to indicate that there is probably a temporary breeding population, or a fairly large migratory influx. Since there are no native plants in the above-mentioned families in the area, either this species could be breeding on introduced plants (mainly Guava), or utilizing a completely different native host. There also were several other tropical skippers collected or sighted in the general area in the same time period. These included *Aguna asander*, *Aguna metophis*, *Aguna claxon*, and *Proteides mercurius*. Although all of these are previously recorded from this region of Texas, the fresh condition of the specimens suggests breeding populations of these seldom seen species existed.

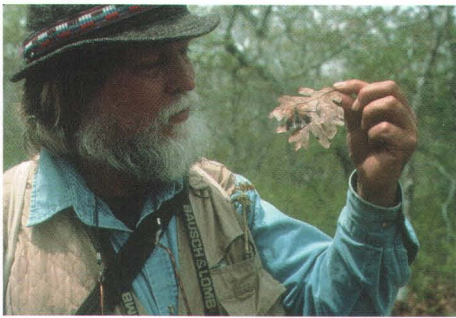
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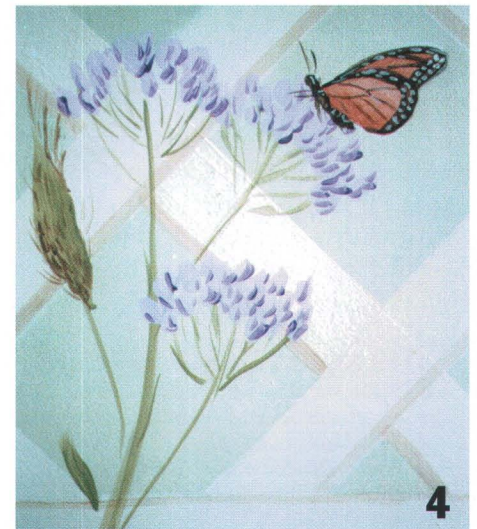
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Butterflies and Beetles...

Upper left: the author, Tor Hansen. Above two, and left: various photos of the interaction between green June beetles and a question mark butterfly feeding at a beetle wound on the stem of a Queen Anne's lace. Photos by Tor Hansen.



Butterfly Murals... The functional artwork of Victor Demasi

- 1. Trellised butterfly room with Monarchs migrating across the ceiling.
- 2. Monarch butterfly larva on milkweed.
- 3. Eastern tiger swallowtail on thistle.
- 4. Monarch on milkweed. See the short article on the previous page.

Butterflies and Beetles

Tor Hansen

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Homeward bound to Englewood, NJ, to attend my father's 80th birthday, I received an unexpected answer from a question mark imbibing sap at a Queen Anne's lace. On the road to Cape May on August 2, 2000, returning from the eventful Lepidopterists' Society meeting at Wake Forest, I had good luck photographing the fauna—including buckeye, gulf fritillary, sachem and fiery skippers—sipping sweet nectar at the flowers at the Botanical Garden in Norfolk, VA. Crossing Delaware Bay on the ferry, I reflected on where Jersey diversity might be in reach, and did I have time to diverge into the vacant weedy fields that still exist at Cape May? Sure enough, my efforts were rewarded while trekking through open fields, decked with Queen Anne's lace, that still perpetuate Jersey's bounty.

So I drove here and there to find a few weedy acres all but saturated with a composite potpourri brimming with tall Queen Anne's lace, red clover, purple loosestrife, and occasional thistles. Thanks to those folks that know to leave well enough alone, the natural succession of weeds yielded assorted genera on the wing. After a fruitless stealthy encounter with an evasive spicebush swallowtail, and getting a clear photo of a single snout, I watched an anglewing flit deliberately down the stem of a tall Queen Anne's lace, not stopping to imbibe nectar from the blossoms, but alighting mid-stem. Inching forward on my knees, I was able to photograph one question mark flashing its wings intent on obtaining a sappy substance oozing from a small gash already servicing two green and gold scarab beetles!

The photos (opposite) reveal what had intrigued me from the start—the two shimmering green June beetles, *Cotinus notida* (Coleoptera), prepared the sap well that attracted a species of a

different order, *Polygonia interrogationis* (Lepidoptera), to search for and quaff the nourishing liquid so easily imbibed by the tubular proboscis of the question mark. Interspecific interactions were demonstrated as the butterfly proceeded upside-down to search for and extract the oozing sap from a chafed wound about a centimeter square, but only after its uncoiling proboscis had repeatedly probed the posterior region, the anal end, of the nearest beetle! The open surface wound revealed the liquid-bearing layers where the beetle had scraped off the cuticle and tough epidermal tissue of the stem with its mandibles. This is characteristic of chafing beetles, e.g. rose petal chafers, Dutch elm beetles, and Mexican bean beetles.

At first I thought the beetle was exuding some solution rich in nutrients, like a morpho butterfly that is attracted to the hind end of a browsing cow, but it quickly became evident that the exuded sap of the plant had rubbed off onto the abdominal segments of the scarab. Interestingly, the beetle offered no resistance to the intruding butterfly, but complied with the search and sequester, not yielding its stance. Blister beetles are known to eject a jet of acid when threatened but no such action resulted from this contact. The anglewing had likely zeroed in on the source of the sap through keen chemoreception and subsequently confirmed by the specialized cells of the tarsi, antennae and proboscis. Intriguingly, no imbibing events were noted at the nearby oaks.

Scarabs and chafers are known to be pests on cash crops like beans, corn and figs, with the larvae feeding underground on roots and stems. Taking its time, the butterfly snaked its agile proboscis around the stem eventually tapping the oozing wound. My in-

trusion, more so than the butterfly's, seemed to frighten away the opulent scarabs, which retreated as the question mark quaffed. The butterfly's proboscis is a source of wonder, so adept at sensory perception at the tip, coilable like an old watch spring, utilized like a stout tool when piercing cells, yet so flexible in sipping sweet serendipity. Imagine how puffed up I felt, so reminded of **The Three Princes of Serdip** (formerly Ceylon, now Sri Lanka), a fairy tale by Horace Walpole, in which the princes experience great happiness upon a series of unexpected encounters!

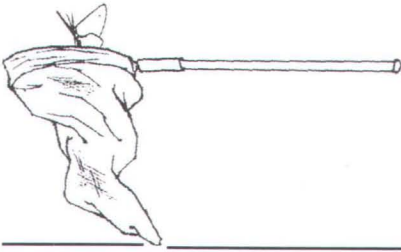
No more contacts of proboscis to cloaca duct were seen but this potential adaptation to obtaining nutrient rich food might be yet another of the daily commensal encounters that are played out in evolutionary time. No doubt both species benefit from imbibing sap and feeding at the same table, but that the scarabs benefit in some way from the presence of the question mark is doubtful, thus this encounter does not presage symbiosis.

What undisclosed secrets await discovery in the obscure veil shrouding the wild weedy oases like those at Cape May? Despite the lucrative attraction of developing these last wild fields, aware stewards seek to preserve them in an unaltered state to keep alive these questions that espouse a halcyon grandeur on such a small but essential scale.

Texas...continued from pp. 6

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Mailbag...

Dear Editor

Great article ("The Chiricahua Mountains" by Kelly Richer, News 44(2): 92-93, 85). It really captured the feel of the place. But please note that the South Fork of Cave Creek (which is, of course, full of leps) is a "Biologically Sensitive Area"—and the rangers can be nasty if they catch you collecting here. South Fork is along the good road that leaves the main road at the sharp curve before the Research Station. It is well signed. For those of you who wish to combine a butterfly count with your collecting trip, please join us on July 26. Contact me at azbutterfly@earthlink.net if you are interested.

Hank Brodtkin
Carr Canyon,
Cochise County, AZ



This photo (taken by Owen Perkins, July 16, 2002) shows that our friend Mo Nielsen has moved up in the world (or down depending on your point of view). The last photos of him (News 40(5): 121) showed him in both Hell and Paradise! Mo writes that Hesperia, MI is located in Oceana-Newaygo counties in west central Michigan. He also notes that within 20 miles of the community they encountered *Hesperia metea*, *H. sassacus*, *H. ottoe* and *H. leonardus* and wondered whether this bit of trivia would be of interest to our "skipper" members...he thought that, at the least, John Burns would have a good chuckle!

To the Editor:

Perhaps I should be flattered that Paul Goldstein spends four valuable pages of the *Journal of the Lepidopterists' Society*, attacking me and the North American Butterfly Association (NABA) in a skewed diatribe barely masked as a book review of *Butterflies through Binoculars: The East* (BTB). Goldstein, an Assistant Curator at the Chicago Field Museum, probably would have preferred a treatise on how to identify museum specimens. He disapprovingly remarks that "There is no discussion of proper vouchering..." perhaps not fully understanding that this book is a field guide—a book intended to enable enthusiasts (including professional lepidopterists) to identify butterflies in the field. Goldstein says "BTB is likely to surpass previous guides' popularity..." but the reader of his "review" would not have a clue as to why. John Shuey, of The Nature Conservancy, gave

a good reason why when he reviewed *BTB: East*: "Historically, the various titles of butterfly field guides could be found in a good dictionary under the term Oxymoron—self-contradictorily titled books that have little or no use in the field... Glassberg sets out to change this ...to actually identify butterflies in the field—a novel and surprisingly controversial concept to many lepid-

pterists...I will soon be carrying a field guide with me in the field—for the first time in over 20 years."

Goldstein's overt hostility toward me and NABA causes him to ignore the book and make emotion-laden and egregiously misleading statements such as "BTB's strident indictments of collecting..." So far as I remember, the only reference to collecting in *BTB: East* is one sentence prefacing a one-paragraph recitation of the extirpation of Mitchell's Satyr in New Jersey: "A third activity capable of harming butterfly populations is the continued killing of rare and local butterfly species by some immoral collectors." If the reader doesn't believe that killing every individual one sees, day after day, year after year, of a highly endangered butterfly is immoral, then we disagree. Moreover, with regard to butterfly collecting, the world-renowned entomologist E. O. Wilson wrote an approving forward to the first *Butterflies through Binoculars* (1993) in which he said "...to be free in a world without destruction or pollution, an aurelian again! But not to kill and pin specimens...The game now is to find, identify, enjoy – and leave alone." And noted Stanford University conservationist Paul Ehrlich recently reviewed *BTB: West* for *Science*, perhaps the most prestigious scientific journal in North America saying: "I hope the book, with its emphasis on observing butterflies, will divert people from starting collections and instead help enthusiasts to enjoy butterflies as living, behaving organisms" (Ehrlich, P. R. 2001. *Science* 293: 2007-2008).

Goldstein saves some of his most blistering comments for nomenclature. Goldstein apparently believes that anyone but NABA can use whatever

nomenclature they deem most appropriate in their publications. He is appalled that NABA believes it is in the best interests of the public for the names of butterflies to be standardized (meaning that the great majority of field guides will use the same names) and characterizes this desire as “belying a fundamental misunderstanding, or a disregard for the scientific process.” To the contrary, it is Goldstein who seems to have a fundamental misunderstanding of taxonomy and the scientific process. The reality is that there are serious disagreements among taxonomists about the best systems to use to describe taxa and about the definitions of species. Thus, while some taxonomic formulations are certainly wrong, there are multiple right answers. The entire taxonomic endeavor is fraught with uncertainty and a fair degree of subjectivity and arbitrariness. Which is exactly why, when dealing with the public, one needs a standardized system. This has worked fairly well for the American Ornithological Union, but perhaps Goldstein considers that they also have a disregard for the scientific process, as he sees it. Far from disregarding the scientific process, the NABA Names Committee considered all published information while making its decisions about the appropriate scientific name for a species. And, it continues to consider all published information on an ongoing basis. Standardization does not mean, as Goldstein implies, a taxonomy that does not change in response to convincing published data.

Goldstein says “In certain cases (e.g., p. 153), taxonomic progress is explicitly ignored and excused only in order to remain consistent with the NABA checklist.” Contrary to Goldstein’s statement, it would not be “taxonomic progress” to change the widely used scientific name *Achlyodes thraso* on the basis of unpublished data—which may, or may not, upon examination prove to substantiate such a change. The data arguing for a change were not readily available to other scientists to examine, comment upon, and possibly refute. The

use of unpublished data to support taxonomic changes (e.g., my good friend Bill says it’s so, so it must be true) is inherently unscientific. The scientific process depends upon a community of shared data. In scientific publications, it is the data themselves that are important, not the conclusions the author(s) draw from the data. The conclusions may be wrong, but the data, if collected and presented correctly, are there for all scientists to interpret in the light of other evidence. In fact, in most areas in which serious scientists are working, results are not really accepted until they are *repeated* by other scientists.

It is often difficult to understand what Goldstein means. For example he states “...a series of misleading comments... Among the more *disingenuous* [emphasis added] are those directed at the use of prescribed burning...” Now, you may or may not agree with my statements about fire (but, for example, Marc Minno has documented that the USFWS burned Arogos Skipper habitat in Florida and that this candidate for endangered species listing has not been seen there since), but I don’t see how they can be characterized as disingenuous, which is defined as “lacking in frankness, candor or sincerity.” Does Goldstein mean that I didn’t really mean what I was saying? Or does he simply enjoy throwing around pejorative words. He also says “...most disturbing and disingenuous aspect of Dr. Glassberg’s agenda is his stance on conservation.” In contrast, Paul Ehrlich, in his *Science* review mentioned earlier, says “*Butterflies through Binoculars* has a wonderful section on conservation.”

Goldstein claims that my statements lack balance, but he fails to mention that it has been NABA members who have found the last known colony of *Hemiargus thomasi bethunebakeri*, who are responsible for the current survival of *Speyeria idalia* in Pennsylvania (having blocked the Army’s plan to convert its habitat into a tank maneuvering area), who discovered a major colony of federally endangered

Neonympha mitchelli in Alabama, who rediscovered a population of *Poanes viator* in Oklahoma, who discovered the first *Lycaena hyllus* in New Mexico and who continue to document the occurrence of what were once thought to be extremely rare strays throughout North America and especially in the Lower Rio Grande Valley. He also fails to mention that dozens of the most respected scientists and conservationists who work with butterflies have published articles in NABA’s *American Butterflies*.

Goldstein states that the “anti-collecting agenda... of... NABA, is well known.” Really? By whom? And more importantly, on what basis? In ten years of publishing a quarterly magazine and newsletter, the only time, to my knowledge, that collecting has been discussed in a NABA publication (or even on our web site at www.naba.org) is in the first issue of *American Butterflies*, published in February 1993. There it was stated “Because a number of people have asked about the position of NABA in regard to collecting butterflies, the board voted to adopt the following policy statement: 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.”

Although NABA has not addressed the issue of collecting, I personally have no problem with collecting any group of organisms when it makes good sense to do so for scientific reasons. Goldstein alludes to a similarity between butterflies and birds, but then dismisses the connection saying “Do we really have a complete enough understanding of butterfly variation, even in the conterminous United States, to stop studying it?” To my knowledge, no one has proposed that we stop studying it. Rather, I, and others, hold the view, from long experience on both sides of the issue, that observing butterflies through binoculars is a far more satisfactory activity for the great majority of people then is wielding a net and that the scientific information we will gain from the tremendously greater

number of data points collected by hundreds of thousands of observers completely swamps any possible inaccuracies, which are generally easy to weed out in any event. Just because someone reports a Red-cockaded Woodpecker from New Jersey does not mean that it is incorporated into any important database. But please note that although I am of the opinion that field observation of butterflies, for most purposes, results in better scientific information than does collecting, neither I, nor NABA, have ever proposed, either publicly or privately, banning collecting.

The first widely-used field guide to birds was published in 1934. At that time there were only a handful of people interested in most birds. Please note that these first *field* guides did not discuss the historical importance of bird collectors nor did they recommend obtaining "voucher" specimens. Now, there are literally millions of birders and this large and influential group has created a constituency that supports extensive conservation of, and research on, birds. Since 1934, collecting of birds in the United States has greatly diminished. However, this has not stopped the continued study of birds, including studies of population variations that have led to many changes in accepted taxonomies. We know so much more about birds than we do about butterflies, not in spite of the huge public interest, but because of this public interest.

NOTICE:

Send me an e-mail!

Is your e-mail address in the latest (2002) Membership Directory? If not, then the Society does *not* have a current e-mail address for you. Before preparing the Membership Directory I tested all the e-mail addresses we had on file, and deleted from the membership database (and from the Membership Directory) all the messages that bounced back as undeliverable.

Goldstein crudely slurs me as opposed to "science." (For those readers who may not be aware of it, I have been a member of the Lepidopterists' Society since 1971 [my collection of neotropical hairstreaks now resides at the U. S. National Museum], have a Ph.D. in Biology from Rice University, was a post-doctoral fellow at Stanford University, worked at Rockefeller University and then co-founded a biotechnology company that developed DNA fingerprinting technology). In my long experience in the scientific community, I find that scientists rarely make proclamations as Goldstein does about "science." Rather, they try to explain what they are doing. Butterflying without nets is part of the scientific endeavor, and the explosive growth and embrace of butterflying, driven by NABA, will result in vast increases in our scientific knowledge of butterflies—of their biology, distributions and taxonomy—and in efforts to conserve them. The latter is already happening as the State of Florida, directly because of NABA, is now undertaking serious efforts to conserve Miami Blues (*Hemiargus thomasi*).

Jeffrey Glassberg, Ph.D.

President, North American Butterfly Association (NABA)

P.S. Goldstein states that Dragonflies through Binoculars, was "published under the auspices of NABA." This is incorrect. There is no connection between NABA and any of the through Binoculars series.

The easiest way to ensure that the Society has your correct, current e-mail address on file is to send me an e-mail (Julian@Donahue.net); you don't need to write an extensive message, just identify yourself and include "Lep. Soc." in the subject line, so I won't think that it's spam. You may also use this opportunity to add or revise your telephone and FAX numbers or notify me of an impending address change. Thanks for your help.

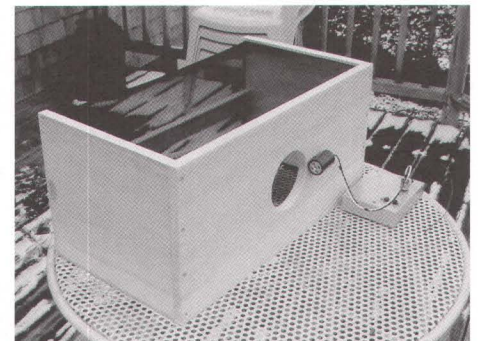
*Julian Donahue,
Asst. Secretary.*

More on Saturniid Breeding Cages

Don Adams

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Bridgewater, MA 02379*

The photo below shows the Saturniid breeding cage that I designed in the 70's, and have been using with good success ever since. It is a simple and inexpensive construction of wood and screening. Called males find their way to the cage opening, then inside where both sexes are afforded good protection from predators. Virgin females placed inside very rarely become active enough to escape from the cage opening. Recently I have discovered this design is especially effective for the brief pairing *Automeris*, since the cage will retain called males even though they may not be in direct company with the female the next morning.



Attached beside the cage opening is my optional electronic/infra-red sensor that alerts me to the presence of called males that approach the cage (or escaping females, which can frequently be found nearby). This is great for precise calling data or simply enjoying the sight of the arriving males without having to stay up all night.



Mid-Winter Gathering held at U.C. Davis

Kelly Richers

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The annual mid-winter gathering of lepidopterists from northern California and beyond was held at the University of California, Davis campus, on January 25, 2003. The Bohart Museum was the center of attention as over 30 lepidopterists visited the museum and listened to presentations in adjoining rooms.

Winter fog and impending storms weren't enough to dissuade lepidopterists from as far away as Los Angeles from attending the annual Pacific Slope winter gathering, hosted this year by Steve Heydon and John DeBenedictis at the Bohart Museum of Entomology at the University of California, Davis campus. Beginning at ten in the morning and lasting until five, students of lepidoptera pored over specimens, traded information and ate the doughnuts until they magically disappeared.

Photos and slides were examined, and a lively discussion was held concerning government regulations pertaining to lepidoptera, especially in the area of endangered species law.

Much of the time was spent in the museum collections, with many drawers inspected and compared to specimens saved from the summer collecting of the attendees. Some attendees even stayed beyond the normal hours of the museum, recording information from the museum collection, through the courtesy of the hosts.

Part of the afternoon was given over to the presentation of a special award, assembled through the efforts of many friends, students, former students and professional acquaintances, and presented to Dr. Jerry A. Powell. The year 2003 commemorates fifty years of his work since coming to the University of California, Berkeley, and though the award was not only from members of the Lepidopterists' Society, most



Metamorphosis...

Douglas C. Ferguson, Ph.D

Silver Spring, Maryland, on 4 November 2002. Dr. Ferguson had recently retired from his position as a U.S. Department of Agriculture research entomologist working out of the National Museum of Natural History in Washington, D.C. At the time of his death he was working on another Geometridae fascicle for the *Moths of America North of Mexico* series (he had previously published fascicles on the Geometrinae, the Lymantriidae, and the Saturniidae).

Although Ferguson specialized in the Geometridae and arctiine Arctiidae, his knowledge of North American moths was vast, with publications ranging from the moths of Nova Scotia to the moths of Bermuda. He recently co-authored (with D.L. Wagner, T.L. Mc

attendees contributed to the plaque presented to D. Powell. The highly unusual presentation was culminated by an actual speechless moment from Dr. Powell, but it soon passed and all returned to normal!

The only shortcoming was that, since this is the usual gang of idiots, so to speak, that gathers, there naturally was no one to take a picture, so the event and meeting will have to remain without a photo to remember it unless someone secretly took a picture without telling anyone. Many thanks to the hosts and to those that attended.



Cabe, and R.C. Reardon) the magnificent *Geometroid Caterpillars of Northeastern and Appalachian Forests* (USDA Forest Service, FHTET-2001-10, 2001). Dr. Ferguson was a Charter Member of The Lepidopterists' Society and, in recognition of his outstanding contributions to the study of Lepidoptera, was elected an Honorary Life Member of the Society in 1990. His family has suggested that donations in his memory may be made to the American Lung Society or the Wedge Entomological Research Foundation (publisher of the *Moths of America* series).

Dr. Laurent Schwartz

of Paris, France, on 4 July 2002. Dr. Schwartz had been a member of the Society since 1978.

Formalism...cont'd from pp. 14

Nice, C. C. and A. M. Shapiro. 1999. Molecular and morphological divergence in the butterfly genus *Lycaeides* (Lepidoptera: Lycaenidae). *J. Evol. Biol.* 12: 936-959.

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Art vs. Science regarding species concepts:

A Comment from “the abyss of empty formalism.”

Andrew V. Z. Brower

Oregon State Arthropod Collection, Oregon State University, Corvallis, OR 97331

Professor Shapiro, whose essays I greatly admire, made some insightful points about the legal ramifications of splitting and lumping species-level taxa in his rather lengthy **News** item (Shapiro 2002). However, he also took advantage of the non-peer reviewed nature of the **News** to vent some incorrect and rather vitriolic opinions about cladistics and the phylogenetic (not “cladistic”) species concept (PSC) of Nixon and Wheeler (1990). I will briefly address these here.

The statement that species require an autapomorphy for recognition under the PSC is false. Nelson and Platnick (1981) and many others have stated that species are recognized on the basis of a unique combination of character states. One of a pair of otherwise identical sister taxa may be recognized by possessing a symplesiomorphy with respect to the other, which possesses a complementary autapomorphy (see Brower 1999).

The suggestion that the PSC converts all subspecies into species, and thus inflates the number of recognized species taxa (and therefore, the number of potentially “endangered species”), is likewise false. Cracraft (1997) pointed out that claims by biological species concept (BSC) advocates regarding cladistic species inflation are greatly exaggerated. Indeed, by disregarding subspecies, the PSC actually reduces the number of named taxa by eliminating all the intraspecific entities that are vaguely defined under the “75% rule” (Amadon 1949) or other arbitrary criteria (see Brower 2000). Shapiro’s own phylogeographic studies have not resulted in a great proliferation of species in *Lycaeides* or *Oeneis* (Nice and Shapiro 1999, 2001). The evidence in

these papers suggests to the contrary that traditionally-recognized subspecies are not cladistically distinct from one another. And even if the PSC did result in the recognition of many more species, the species-inflation criticism would be irrelevant in regard to the Endangered Species Act, since species and subspecies alike fall under its umbrella of potential legal protection.

That said, it seems to me that the PSC is extremely useful and applicable to the ESA’s definition of species as quoted by Shapiro:

“The term ‘species’ includes any subspecies of fish or wildlife or plants and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.”

I will not address the unfortunate point that this definition, like the BSC, excludes clonal and parthenogenetic taxa (which do not interbreed when mature). What I like about it is the emphasis on the act of distinction, which implies that decisions about species are based upon observation of distinguishing features by taxonomists. By happy coincidence, I used the same term in Brower (1999) to label basal cladistic units separated by one or more character state transformations. Instead of “reverting to typology,” testing the distinctness of cladistic species requires explicit empirical evidence that hypothesized populations are the same or different. The PSC makes claims about our knowledge of particular taxa (in which growth and change are considered good), not about the essential natures of the taxa themselves or taxa in general, as does the BSC. Under the BSC’s “actual or

potentially interbreeding” criterion, the “real’ biological entities” include such implausibly polytypic butterfly chimeras as *Limenitis arthemis+archippus*, *Heliconius melpomene+cydno+heurippa+pachinus+ethilla*, *Papilio machaon+polyxenes+xuthus*, etc. That is, unless we discount such observed instances of interbreeding as “interspecific,” which means that we are really relying on a separate, unspoken, a priori definition of species.

Such exceptions make the adjudication of the BSC completely arbitrary and up to the authority of experts (or the man in the street) who know “good species” when they see them. With all due respect, I’d rather go to court with evidence.

I presented some of these ideas in my talk at the symposium on lepidopteran species and speciation (Lep Soc. 52, Sierra Vista AZ, 1999).

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continued on pp. 13...



The Lives of Butterflies: Tails & Tales

Pat Durkin

I had thought that Clothes Moths were the black sheep of the Lepidoptera until I read Pat Durkin's scary piece on the Death's Head Sphinx. Despair, ruin, depression, fear, and worse have been associated with this poor insect. Talk about an image problem! But we are passionate about our scaly insects, and in this case, the Death's Head Sphinx has fascinating aspects to its biology, so read on...



The Unnatural History of the Death's Head Moth, *Acherontia atropos* (Linnaeus, 1758)

The Death's Head Moth is about as sweet a bug as there is. It doesn't sting, nibble sweaters, threaten forests, populate out of control or gum up your muesli while you're on vacation. Even as a crop pest *Acherontia atropos* barely registers. About the only place this large hawk moth is capable of raising a fuss is in a beehive, where it goes for honey. But leave it to the human inclination to sensationalize.

Prominently displayed on the insect's dorsal thorax is an uncanny likeness of a human skull and crossbones, a virtual poisonous-substance label that

has guaranteed the moth its considerable presence in the annals of horror.

Even Linnaeus, inventor of modern taxonomy, couldn't resist. When he first described the moth in 1758 he dubbed it *Sphinx atropos*—Atropos, the eldest of the three Fates who is always pictured with a veiled face and carrying scissors with which she severs the thread of life. Later taxonomists couldn't resist, either. A half-century later the species was grouped under the genus, *Acherontia*, which refers to Acheron, the mythological river of sorrows that flows through hell. This Old World genus includes only two other species: *A. lachesis* (Fabricius, 1798) and *A. styx* (Westwood, 1847).

Acherontia atropos is an Afrotropical species whose range extends to parts of southern Europe. During summer, the moths migrate in small numbers into Northern Europe. Their offspring joined by more migrants make up the generation seen by northern Europeans in July and August. Northward migrations may have become more pronounced—or more frequently noticed—during the 18th century when the potato, one of the many Solanaceae used by the species as larval hosts, became a common agricultural crop in northern Europe. Then as today, the larvae are found mainly by potato farmers. Legend has connected the Death's Head moth to pestilence, war, and death to man and beast. The large numbers of moths that occur in some years have caused alarm. A sizable invasion in Brittany caused a public panic.

Several Death's Head Moths made an appearance in George III's bedchamber in 1801 during one of his most acute attacks of madness. (This is the same

English king, you will remember, who wrote that nothing of note happened on July 4, 1776.) George never recovered from that attack; it cost him his throne. The mad king died deaf and blind at Windsor Castle in 1820. Two specimens of *A. atropos* collected from his bedchamber are still among the entomological collections at the University Museum of Zoology Cambridge.

Given its reputation for trouble, the Death's Head Moth inevitably came to the attention of Edgar Allen Poe, father of the modern horror tale. The moth figured prominently in "The Sphinx," a short story published in 1850 about a New York City man who flees to a friend's country cottage to avoid a cholera epidemic sweeping through the city. Alone in the cottage one night and distraught about continuing news of dying friends and relatives, the man imagines a gigantic insect-like monster lurking outside. He sees wings the length of two football fields, metallic scales the size of dinner plates, and a huge death's head emblazoned on the creature's breast. The "monster," it turns out, is merely a Death's Head Moth crawling across the window pane.

"I have to agree, it's not very plausible," says Chris Semtner, exhibits manager at Richmond's Edgar Allen Poe Museum. "'The Sphinx' isn't one of Poe's better stories. Try the 'The Gold Bug.' That's a really good one."

Plausibility wasn't Poe's only problem with "The Sphinx." He must have learned about the Death's Head Moth as a student in England, but one wonders if he ever saw one. The telltale skull mark is topside.

continued on next page...

This article continues a series of light-hearted columns about the lives of Lepidoptera (and Lepidopterists). Contact the author of this installment, Pat Durkin at 23 Logan Circle NW, Washington, D.C. 20005. Contact series editor, Bob Robbins, at the Department of Entomology, NHB 127, NMNH, Smithsonian Institution, Washington, DC 20560-0127, (202) 357-2353, butterflytales@hotmail.com

Tales...*continued from pp. xx*

"Not only did he not visualize the death's-head moth, but he was also under the completely erroneous impression that it occurs in America," complained Vladimir Nabokov a century later in a letter to a colleague. The Russian-born literary genius was an unabashed admirer of Poe, but also a self-educated expert in lepidopterology with 22 North American butterfly species named either by or for him.

However, Poe was correct in some respects. Whether searching for food or mates, *A. atropos* is active from dusk until midnight and is, indeed, attracted to light. And the moth can make sounds, although hardly, as Poe described in his story, a roar "so loud and so expressive of woe" that it could cause a full-grown man to faint with fear. The real-life sound—closer to a mouse squeak—is made when the moth rubs its palpi against its proboscis. Disturbed moths, especially males, react by raising their wings, hopping about, and emitting high-pitched squeaks, a performance thought to ward off predatory bats. Ironically, the same sound soothes honeybees, a distinct advantage when a moth enters an active hive on a honey raid. While *A. atropos*, also known as the Bee Robber, is busy piercing honeycomb with its short, stout proboscis, the moth is further protected by the cutaneous fatty acids of its host plants, which render the moth chemically invisible to bees.

But even Nabokov could not have guessed when making his comments a half-century ago that *A. atropos* is among the sphingids that can hear ultrasound. In 1991 European investigators published research showing that moths of the tribe *Acherontiini*, which includes *A. atropos*, use modified mouthparts to detect the echolocation frequencies of some large bat species. Moths in the study responded to bat sounds with evasive flight tactics and, in the case of *A. atropos*, emitting squeaks that startled the attacking bats. The close tuning of the moths'

ultrasound-detection abilities to the bats' echolocation frequencies suggests the moths' hearing abilities evolved in response to predatory pressure from bats.

It's not surprising that *A. atropos* became something of a totem for the mentally ill. Chronically depressed artist Vincent van Gogh painted "Death's Head Moth" in 1889 while committed to a sanatorium in Saint-Réme, France. His coarsely rendered insect, seemingly on the verge of sinking into a bed of sticky-looking green leaves, may have been prophetic. Only a year later the desperately discouraged painter, who had no idea his work was destined for worldwide acclaim, set his easel against a haystack and put a bullet through his chest. "Death's Head Moth" is among the permanent collections of the Van Gogh Museum in Amsterdam

Ironically, Van Gogh's conception of the moth was even less accurate than Poe's. The painted moth is more saturnid-like than sphingid, and its garish markings don't come close to the real thing. Van Gogh's moth has two sets of electric green wings with prominent eyespots. *A. atropos*' forewings are mottled gray to brown and marked only with a small white discal dot. Its brilliance is limited to the bright yellow of its hindwings, usually concealed under the forewings. To compare, view Van Gogh's painting at www.vangoghgallery.com/painting/p_0610.htm and a scientifically accurate illustration of *A. atropos* at tpittaway.tripod.com/sphinx/a_atr.htm.

Toward the end of the 19th century the Death's Head Moth made a cameo appearance in "Dracula," Bram Stoker's horror novel about a vampire that haunts Transylvania, now Romania. Dracula's deranged acolyte, Renfield, ate only living things, believing they maintained his life force. During Renfield's institutionalization, Dracula sent him care packages of *A. atropos* and other insects. But for sheer terror and perversion, nothing comes close to the insect's role in "The Silence of the

Lambs," the 1991 Hollywood blockbuster about a hunt for a sexually deranged serial killer whose trademark is a cocoon stuffed into the throats of his victims. But again, we find artistic license. The pupa in the film, which has a long, jug-handled proboscis, is misidentified by the museum curator as a *A. atropos*. Instead, it is *A. styx*.

Fortunately, *A. atropos* is unaware of all of this cultural baggage. The moth has to contend with enough real-life horrors. Numbers of *A. atropos* are dwindling, presumably because of widespread pesticide use.

Good thing the bug doesn't write about us.

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A New Locality for the Endemic Charaxine *Memphis lankesteri* in Costa Rica

Jorge R. Montero-Moreno

P.O. Box 1913-1000, San José, Costa Rica

The Charaxines of Costa Rica include some 27 species in the genus *Memphis* Hubner 1819, but may contain more since some species are difficult to determine with precision, especially the blue forms. In Costa Rica, *Memphis* inhabit forest and secondary growth habitats with some few montane species, however, the highest diversity occurs in lowlands and mid-elevations.

Memphis lankesteri (Hall, 1935) is endemic to Costa Rica and is considered to be rare with a very restricted distribution, occurring locally from 1000 to 1500 M in premontane wet forest (DeVries, 1987). DeVries also states (pp. 122) that "virtually all known specimens come from the mountains near Tres Ríos and Patarrá" in the southwestern Meseta Central, and concludes, "This species is very rare in Costa Rica collections."

I have taken a male specimen at Bebedero de San Antonio de Excazú, near radio transmission towers, 1400 M in the northwestern mountains of Meseta Central, Province of San José, January 26, 2000. The specimen is in the Montero-Moreno Collection, Pavas. This specimen represents a new locality for *M. lankesteri*, a disturbed zone with patches of the original premontane wet forest and secondary growth. The life zone is similar to previously known localities, and has similar Geological origins (J. Flott, Museo La Salle de Ciencias Naturales, pers. comm.). It is about 35 km northwest of the known range.

Because so little is known of this species I include some of my observations. The specimen was taken along a rustic road that runs up to the radio towers at the forest edge, the day was sunny and the butterflies were active at

about 12:30 hrs. The flight pattern was sailing but erratic and fast, perches were at approximately 2 M on the upper surface of the leaves of a small tree, likely Lauraceae, with alternating opening and closing of the wings. The date of capture was early in the dry season. Trees of the zone were predominately Lauraceae, Moraceae, Anonaceae and Euphorbiaceae. Other Charaxines flying with *M. lankesteri* included *M. glycerium*, *M. arginussa eubaena* and *Consul electra*. Typical other butterflies included *Dione moneta poeyii*, *Heliconius clysomimus montanus*, *Hypanartia lethe*, *H. godmanii*, *Adelpha tracta* and *A. demialba* (Nymphalidae), *Pereute charops*, *Pieriballia mandella noctipenis* and several species of *Catasticta* (Pieridae), the papilionids *Papilio polixenes stabilis*, *P. anchisiades idaeus* and *Eurytides prote-silaus*, and the Pronophilina satyrids *Drucinna leonata* and *Pronophila timantes*. The area is very cloudy and rainy for much of the year but with sunny mornings. The apparent disjunction between new and previous localities is probably due to the area being poorly known. It is possible that this species lives in the zone of Cerro El Cedal and Alajuelita, which have similar characteristics.

Acknowledgements

I dedicate this paper to Hno. Eduardo H. Fernández Barcena, founder of Museo La Salle de Ciencias Naturales, pioneer of Ambiental education in Costa Rica, and to J. Flott of the same institution who provided me with information and discussion about this paper.

Literature Cited

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New Book

A Revision of the Silkmoth Genus *Samia*

by Richard S. Peigler and Stefan Naumann. 2003. ISBN 0-9728266-0-2. University of the Incarnate Word, San Antonio, TX.

This detailed taxonomic revision resolves much of the long-standing confusion pertaining to the nomenclature of this genus of beautiful moths. The text covers all 19 known species giving complete synonymy, descriptions, hosts, immature stages, all known localities, habitats, flight times, and parasitoids, and the 148 color figures depict the adults of all species and the caterpillars of several. Additional color figures show samples of textiles made from ailanthus silk of *Samia cynthia* and eri silk of *Samia ricini*. Black & white photos depict the male and female genitalia of all species.

The book has lengthy summaries in Chinese, French, German, Indonesian and Japanese, is about 288, 8.5 x 11 inch pages, and contains an exhaustive bibliography of almost 800 citations. A chapter on silk culture, another on hybrids, an appendix providing a list of all known plants used by *Samia* in nature and captivity, and a complete phylogeny of the tribe Attacini are also included.

The authors are well-known specialists on saturniid moths and have collaborated to produce this authoritative and beautiful book. Together they have assembled data from the labels of hundreds of pinned specimens of *Samia* in museums, and accessed much of the rare and historical literature about these moths.

Price is \$36 USD per copy (\$4 USD postage and handling fee for US and Canadian buyers; \$7 USD (surface) or \$20.30 USD (airmail) postage and handling fee for Overseas buyers). TX residents must include \$3.15 state sales tax. Order from: University of the Incarnate Word, Campus Box 301, Attn.: Margaret Preston, 4301 Broadway, San Antonio, TX 78209-6397.

How to Purchase Used Lepidoptera Books on the Internet

Eric H. Metzler

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If you, like me, are a bibliophile, or you just need a couple of books to help with your favorite subject, the internet is an excellent place to look. Before the internet, finding a used book meant waiting anxiously for the most recent catalogue from your favorite antiquarian dealer, and visiting many used book stores on every vacation, often placing a strain on your family relationships. The nostalgia of these tactics can bring tears of joy or frustration. The internet may also bring tears and strains, but for the intrepid book searcher, the internet can bring a listing of the literature for sale from the used book shops of the world to your finger tips.

The internet, with its new marketing techniques, is a bust for some retailers, and a boon for others. I discussed the opportunities of the internet with some dealer friends, and it completely changed their business strategy. The sellers list more of their items for sale on the internet, and many sellers print fewer catalogues. The sellers spend less time marketing to persons on their mailing list and more time marketing to the World. The sellers view prices of like items from other sellers, and because similar items with higher prices don't sell, prices tend to come down. Sellers get to remain current with market trends. Stock moves faster, and more items are sold. The internet helps dealers make a profit on low volume items, thus the variety of offerings is increased. Some sellers can stay in business without the overhead costs of a retail shop. I have three friends in Columbus, Ohio who sell out of their homes, no visitors allowed. These sellers have excellent items at very cheap prices. Overall, the sellers I talked to like the internet, once they get used to it.

The internet brings new challenges and opportunities for the buyers. Fewer catalogues are printed, and the listings on the internet come and go quickly. Archiving sales lists is difficult. Book searches happen almost instantly, and the buyers get to see many more choices. Buyers get to see items they didn't know were available, and at prices that are either surprisingly affordable (or so expensive it defies imagination). Buyers are no longer vying for a limited number of items with other customers on sellers' mailing lists; buyers are comparing prices with anyone in the world who has an internet link. More books are sold, and more books are offered for sale. The variety of offerings is increased. A few years ago it was difficult to buy obscure Russian journals or books from inaccessible countries, such as mainland China; now it is easy. For me, I spend more time and money, to the chagrin of my spouse, than before the internet, and I buy more items, but I find competition brings prices down leaving dollars left over for a few of the expensive items.

Learning to trust the internet for making payments can be a concern. Working out payment is different for each dealer. Some dealers accept payment from internet payment services, such as PayPal. Most dealers accept FAXes with payment information. Some dealers in the USA and Canada have toll free telephone numbers. Most dealers accept credit card payments, and for the buyer credit cards take the guess work out of currency exchange rates. Direct comparison of different currencies is up to date at internet sites. I usually send my credit card information, via email, in a series of three messages, each message

separated by several minutes to several hours, and each message has part of my credit card number. I never send digits in my credit card number, rather I spell out the number. VISA 1234 5678 9123 4567 translates to "veesah one two three four space five six seven eight etc." Sometimes I write the number out as "one thousand two hundred thirty four space five thousand six hundred seventy eight etc." I've never had a problem. And I send payment with checks or money orders in the tried and true method of the mail. Bank to bank wire transfers of money are often available.

Work out all shipping details with the seller. Make sure the shipment is insured, or use something like certified or registered mail, to ensure safe delivery. A lost shipment between countries is gone, along with the money, forever. Ask the seller to use a mailing label inside the package as well as on the outside of the package. I also ask for shipment via Economy Air Mail because both the seller and I can quickly confirm delivery. These added services cost a little extra. Experience taught me the added expense is worth the money.

I found three useful internet tools to help me communicate with dealers. The first is using web sites for international communication, such as country telephone codes, time zones, and currency exchange rates. For example, if you are not sure of the relative values of foreign currencies when buying from dealers in other countries, the web sites allow you to quickly compare prices in different currencies. The second tool allows you to send FAXes via the internet. If you have a modem, you probably have a built-in FAX for sending messages. You can rent a FAX number

(less than from the phone company) to receive FAXes free, and for a small fee, that is less expensive than the price of a long distance phone call to a foreign country, you can send FAXes. I also like to send payment via PayPal if the sellers accept such payment. You register with PayPal and give them your credit card number on a secure server. On secure servers all information is encoded for safety. Once registered on PayPal, you can quickly send money, and the payment is charged against your credit card. PayPal is a secure way to use your credit card number. The seller never sees your credit card number, and just like all credit card transactions, the seller pays the fees. I really like PayPal.

I found three ways to search for literature on the internet. The first is eBay auctions, the second is web sites maintained by sellers, and the third is databases, maintained by associations, pooling the stock of many dealers. All three search methods work well.

To buy from eBay you have to register as a buyer, no cost for registering, at www.ebay.com and you visit the eBay web site on a regular basis to see what books are for sale. The eBay site allows you to maintain favorite searches which makes each visit to eBay go quickly. I use the search terms "butterfly book," "butterfly bk," "moth book," and "moth bk." With some experience you'll develop quick ways to browse and search, but always experiment around a bit. Not all sellers use the same method for making listings, and you don't want to get stuck in a rut.

Some sellers have their own web sites where they list their stock. Not all these sellers use association databases. Over time you'll learn. I give you the web sites from dealers who do not consistently list with search engines. Many of the dealers emphasize different kinds of literature. Some of these dealers have only expensive books—look and drool. Others specialize in reprints and inexpensive items. A few have long listings of journals. Some specialize in new books with a few used books, and others have mostly used books.

Experience will soon teach you where to look for which items.

Many book sellers, including hard to find book shops, list their books for sale on large databases run by associations. In these cases, dealers list their stock on a common database, and when you search for something, you get to see what's currently available from many dealers around the world. Experience will tell you which associations you like best. I prefer www.ABEbooks.com and www.ilab-lila.com, but I always check the others. Be sure to use the advanced search option if it is available. For example, at ABEbooks (and others) you can use the advanced search to have the items listed in order of most recently offered for sale. This option means that you don't have to search all 4,400 books with the keyword butterfly to see what was listed yesterday. Just ask for the books to be shown in order of listing, and you can do a daily check to see what's new. One site, www.addall.com, claims to search all the other sites and give you a composite listing. The listings from addall.com are usually incomplete, but it's fun to look anyway.

One site, Alibris, lists books from many dealers. When you order a book from Alibris, Alibris orders the book from the dealer. The book is sent to Alibris, and Alibris sends it to you. For this reason, a book ordered from Alibris takes longer to be delivered, and costs more than the same book ordered directly from the same dealer on ABEbooks. Alibris rarely has items not on the other sites. Shop around.

For those of us who speak only English, knowledge of a few other words for Lepidoptera works wonders. For example, at the French site, everything will be in French. Use the internet to buy a cheap French dictionary, and have fun. Not all dealers use the same keywords. I use 6 keywords every time I visit the sites. My favorite search terms on the general sites are "Lepidoptera," "butterflies," "moths," "schmetterlinge," "insects," and "entomology." Alibris is in English where

schmetterlinge is almost useless, but at the Scandinavian site, on ABEbooks, and ilab-lila.com, the term schmetterlinge is very useful. On the Scandinavian site fjarilar is an important key word.

Many dealers, including those participating with association databases, often have special sections of their web sites where they list new arrivals. These are books not yet available on the association databases. Be sure to check these lists of new arrivals. E.W. Classey LTD maintains a database listing of books for sale by private individuals. You can find the addresses, phone numbers, email addresses, accepted payment methods, and FAX numbers at the web sites for each dealer. The association databases also include contact information for each participating dealer.

Many dealers accept lists of items from you that you want to buy. These are called lists of desiderata. Some of the association databases, i.e. ABEbooks and the used book section of Amazon, allow you to list items that you want to buy. The computer is supposed to let you know as soon as one of the items on your want list is available for sale. I've made good use of this feature.

Be sure to use a universal search engine to look for new dealers and association databases. I like to use the site www.google.com where I enter the search phrases "used books," "antiquarian books," and "book dealers."

I have an addresses for one dealer who does not sell at a website. Please contact him for a listing of what he has for sale.

I share this information because over the years many lepidopterists generously shared their information with me. I want to pass along useful information. I don't feel we are in competition with each other for the books. No one of us can buy everything. I want you to enjoy your book hunting as much as I enjoy my searches. I'm also thinking ahead. Someday I'll sell my books and the dealer will use the internet to sell them to you. I need you,

as experienced buyers, to help me get the highest prices possible :-).

Please use the NEWS to share your experiences, and to add information I overlooked, or notify me and I'll compile an addendum. We are here to help each other. Good hunting, and good buying.



These sites provide quick information on world currencies:

www.oanda.com/converter/cc_quotes
www.xe.net/currency/

Use this site for international telephone country codes:

www.studyabroad.com/telcodes.html

Use this site to learn time zone formation for making phone calls:

www.econofinance.com/time.htm

Use this site to sign up for sending FAXes by email:

www.efax.com

Use this site to sign up for PayPal:

www.paypal.com

Use these sites to search association databases:

www.abebooks.com

www.ilab-lila.com

abaa.org

www.addall.com

www.antiqbook.com/books/

www.bibliofind.com

www.bibliology.com

www.bookfinder.com

www.franceantiq.fr/books/cata_uk.htm

www.svaf.se/en-sok.htm

www2.alibris.com/cgi-bin/teaxis/bookstore

Some of these dealers list on association databases, and they maintain their own excellent sites:

A. Asher & Co. B.V.:

www.asherbooks.com

Andrew Isles Natural History Books:

www.andrewisles.com/

Antiquariaat A.Kok & Zn:

www.nvva.nl/kok/index.htm

Antiquariaat Jan Meemelink Flower Garden & Botanical Books:

www.meemelink.com

Antiquariaat Junk B.V.:

www.antiquariaatjunk.com

Antiquariat Goecke & Evers: www.sdirektnet.de/homepages/entomology/

Apollo Books Aps.:

www.apollobooks.com

(Note: the Apollo site does not show used books. Send an email to apollo-books@vip.cybercity.dk asking for used book listings.)

Backhuys Publishers:

www.euronet.nl/users/backhuys/

Barnes and Noble:

search.barnesandnoble.com/oopbooks/oopsearch.asp

Bow Windows:

www.bowwindows.com

Dieter Schierenberg b.v.:

www.schierenberg.nl/

Dr. Hildegard Winkler:

exotics.net/winkler

E.W. Classey Ltd.:

www.classeybooks.com

(Note: When at the Classey site, click on BookMart for listings from private individuals)

Flora & Fauna Books:

www.ffbooks.com

Frank Mikesh:

www.netvista.net/~natscibooks

Gary Wayner: www.wayner.com

Hillside Books:

www.insects.demon.co.uk

Koeltz Scientific Books:

www.koeltz.com/indexSecure.cfm

Librairie de Latude:

www.franceantiq.fr/slam/latude

Librairie Cart-Tanneur:

www.franceantiq.fr/slam/cart-tanneur/

Lowendahl Rare Books:

www.lowendahl.com/

Lubrecht & Cramer:

www.lubrechtcramer.com/

Maggs Bros. Ltd: www.maggs.com

Messrs Berkelouw:

www.berkelouw.com.au/

Pemberley Books:

www.pembooks.demon.co.uk

Pensoft Publishers:

www.pensoft.net

Powell's Books: www.powells.com

Raymond M. Sutton, Jr. Books:

www.suttonbooks.com

Rob Kok Old Books and prints:

www.xs4all.nl/~rorostef

Wheldon & Wesley, Limited:

www.users.dircon.co.uk/~wheldwes

Xerxes Books: xerxesbooks.com

The next list of good natural history dealers use association databases to list their stock.

Donald E. Hahn: www.abebooks.com/home/Hahnsnatural/

Jeff Weber Rare Books: bookmarque.net/abaalinks.cfm?Dealer=weber

John Johnson Natural History

Books: www.abebooks.com/home/133757/

Larry W. Price: www.abebooks.com/home/Larrywpricebooks/

Rudolph Wm. Sabbot:

www.abebooks.com/home/Sabbotbk/

Watkins Natural History Books:

www.abebooks.com/home/Watkinbk/

As far as I know, the next dealer does not use the web to sell books. Contact him to receive his catalogues:

W. P. Heppener, Grote Str. 9, 7478 AA Diepenheim, The Netherlands, +31 (0) 547 352089.



Editor's Note: This article is available in Acrobat PDF format, with "live" clickable links, on the News website at www.esb.utexas.edu/philjs/news/news.html.

Lance-leaved Violet (*Viola lanceolata*), the Presumed Hostplant for Silver-bordered Fritillary (*Boloria selene myrina*) in central New Jersey.

Guy Tudor and Michael Gochfeld

111-14 76th Ave, Apt 107, Forest Hills, NY 11375 and
EOHSI Building, 170 Frelinghuysen Rd, Piscataway, NJ 08854

Violets are the predominant host plants for the larger fritillaries (*Speyeria*) and some of the smaller *Boloria* species as well. For most eastern fritillary species, however, very few host plants have been identified in the wild, although in the laboratory larvae will accept and apparently thrive on a variety of violets. The eastern species of *Boloria* fall into two general categories: *Salix*/*Polygonum* feeders such as Frigga Fritillary (*B. frigga*) and Bog Fritillary (*B. eunomia*), and the violet feeders. The various fritillaries in New Jersey have been associated with only one or a few species of violets, but for Silver-bordered Fritillary (*B. selene myrina*), listed as a threatened species in New Jersey (NJDEP 2002), no host species were identified (Gochfeld and Burger 1997). In the western United States the Silver-bordered Fritillary is reported to use several species of violet (Scott 1986) that do not occur in the east, and Opler (1984) could only report "Violets are probably the chief larval hosts, but other plants are suspected..." (including willows, strawberries and blueberries).

We have been surveying sites for Silver-bordered Fritillary in central New Jersey, where four sites are known in Monroe Twp and South Brunswick Twp of Middlesex County. On 27 May 2002 we found *B. selene* ranging along a wide gas-line cut through Monroe Twp, the low-lying sections of which provide grassy, wet meadows. At one

site at least 35 individuals were flying. At all three swales where we encountered *B. selene* it was associated with Lance-leaved Violet (*Viola lanceolata*). No other violets were found. *Viola lanceolata* was also the apparent host choice at nearby Pigeon Swamp where *B. selene* were courting and mating, but we couldn't detect any actual egg-laying.

Lance-leaved Violet is widespread in the East, and is a characteristic violet on sandy soil of the coastal plane, around pine barrens bogs and swales. Shapiro (1974) reports that Aphrodite (*Speyeria aphrodite*) uses *V. lanceolata* as well as other species. The artificial meadows created along the gasline cut, appeared very suitable and sustained the largest numbers yet encountered in New Jersey in modern times. This is at a time when several former *B. selene* colonies seem to have disappeared.

We believe that on the coastal plain of New Jersey, this violet is the likely host, but on the Piedmont where other violets predominate other hosts must be used.

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Shapiro, A.M. 1974. Butterflies and Skippers of New York State. Search 4:1-60.

New Black Light Bulb

Leroy C. Koehn

202 Redding Road, Georgetown, KY
40324-2622, Leptraps@aol.com

There is a new black light bulb available that is more effective than the 350 black light bulbs that are currently used in light traps and night collecting lights. The new Quantum Black Light Bulbs are the first major advancement in UVA technology in over 50 years. The Quantum Black Light Bulb was designed around new Phosphor technology that generates extra attraction for pest control in the food service industry. These bulbs are 100 percent more effective and 40 percent more powerful than standard 350 Black Light Bulb. Quantum Black Light Bulbs peak at 365 nanometers wavelength. Depreciation of UVA is also significantly reduced resulting in a 40 percent increase in output over standard 350 Black Light Bulbs.

I have field-tested the Quantum Black Light bulbs over the last two years in my light traps and can attest to their effectiveness. Even during a full moon, they will attract more moths to the trap than a 350 black light bulb. I have provided a number of active field workers with Quantum Black Light Bulbs for their traps and their comments and successes with the Quantum Bulbs were extremely positive.

There is no scientific method for determining and/or compare the effectiveness of these bulbs when used in light traps or in night collecting lights. It is only through years of continuous use of light traps in the field that I have been able to determine that there is a noticeable increase in the number of insects attracted to my light traps by the Quantum Black Light Bulbs. However, the manufacture of the Quantum Black Light bulbs, Sylvania International, states that the Quantum bulbs preserve their output at 70% over

continued on pp. 31



The Marketplace

IMPORTANT NOTICE TO ADVERTISERS: If the number following your advertisement is "443" then you must renew your advertisement before the next issue! Remember that all revisions are required in writing.

Books/Videos

Used Books for Sale: Used books and some journals, mostly Lepidoptera, i.e. Strecker, Packard, Fabricius. For a printed list send SASE #10 business envelope with \$.80 US postage. For faster access, the list is available at: my.ohio.voyager.net/~spruance/booksale/booksforsale.txt or I will send the list via email. Send request to: spruance@infinet.com. Thanks for your interest. Eric H. Metzler, 1241 Kildale Sq. N., Columbus OH 43229-1306. 451

For sale: Seitz, A., Macrolepidoptera of the World. German edition. First division: Palaearctic Regions, Volumes I, II, III, IV. Plates and German text are bound separately in 1/2 morocco. First Volume (1909) 89 plates/3470 specimens; Second Volume (1912/1913) 56 plates/2489 specimens; Third Volume (1914) 75 plates/4338 specimens;

Fourth Volume (1915) 25 plates/1977 specimens. All books in firm binding without damage to spines and corners. Best offer over US\$ 2,500. Dr. Balhard Falk, P.O. Box 315, Belvedere, CA 94920-0315, falktibrn@aol.com. 451

For sale: Books on Lepidoptera and other orders. Have a number of D'Abrera's books, plus pins, vials, nets, etc. Send SASE to Dr. Eugene J Gerberg, 5819 NW 57th Way, Gainesville, FL 32653, genejg@aol.com 443

Livestock

Cocoons of *Hyalophora cecropia*. Large numbers available for research purposes, US only. Joseph W. Markowicz, 343 Summer St., East Bridgewater, MA 02333, marko217@attbi.com, 508-587-8658 443

For Sale (US only): Cocoons of *Antheraea polyphemus* and *Callosamia promethea*. Send SASE to Karl W. Ploran,

110 Route 20, Chester, MA 01011-9642, 413-354-7852 (7-9 pm EST). 443

Specimens

I have a rich variety of *Charaxes* and Papilionidae from Africa available. List available on request. Wanted: *Charaxes*, Papilionidae from East and Southern Africa, *Prepona* from South America. Giancarlo Veronese, Viale Venezia 138-33100 Udine (Italia), Fax: ++39-0432-232654, gc.veronese@virgilio.it 451

Parnassius, Papilionidae, Nymphalidae, Pieridae, Lycaenidae, Satyridae, Nanaidae, Hesperidae, moths, stag beetles, Carabidae, Lucanidae, Scarabaeidae, Cerambycidae, Curculionidae, Elateridae, Odonata, Cicadidae, Buprestidae from China. Mr. Ng Yuk-Ming, Room 414, Trans Asia Centre, 18 Kin Hong St., Kwai Chung N.T., Kowloon, Hong Kong. Fax: 0852-27440979, 0952-24283926. Phone: 0852-24011392. 451

The aim of the Marketplace in the **News of the Lepidopterists' Society** is to be consistent with the goals of the Society: "to promote the science of lepidopterology...to facilitate the exchange of specimens and ideas by both the professional worker and the amateur in the field,..." Therefore, the Editor will print notices which are deemed to meet the above criteria, *without quoting prices*, except for those of publications or lists.

No mention may be made in any advertisement in the **News** of any species on any federal threatened or endangered species list. For species listed under CITES, advertisers must provide a copy of the export permit from the country of origin to buyers. **Buyers must beware and be aware.** Advertisements for credit, debit, charge cards or similar financial instruments or accounts, insurance policies and those for travel or travel arrangements cannot be accepted because they jeopardize our nonprofit status.

Only members in good standing may place ads. All advertisements are accepted, in writing, for two (2) issues unless a single issue is specifically requested and must be renewed before the deadline of the following issue to remain in place. All ads contain a code in the lower right corner (eg. 386, 391) which denote the volume and number of the **News** in which the ad. first appeared.

Advertisements must be under 100 words in length, or **they will be returned for editing**. Ads for Lepidoptera or plants must include full latin binomials for all taxa listed in your advertisement.

Send all advertisements to the Editor of the News.

The Lepidopterists' Society and the Editor take no responsibility whatsoever for the integrity and legality of any advertiser or advertisement. Disputes arising from such notices must be re-

solved by the parties involved, outside of the structure of The Lepidopterists' Society. Aggrieved members may request information from the Secretary regarding steps which they may take in the event of alleged unsatisfactory business transactions. A member may be expelled from The Lepidopterists' Society, given adequate indication of dishonest activity.

Buyers, sellers, and traders are advised to contact your state department of agriculture and/or PPQAPHIS, Hyattsville, Maryland, regarding US Department of Agriculture or other permits required for transport of live insects or plants. Buyers are responsible for being aware that many countries have laws restricting the possession, collection, import, and export of some insect and plant species. Plant Traders: Check with USDA and local agencies for permits to transport plants. Shipping of agricultural weeds across borders is often restricted.

For Sale: Large collection of Iranian butterflies, perfect quality with data. Papilionidae, *Colia chlorocoma*, *C. sagartia*, *C. hofmannorum*, *C. aurorina*, *C. thisca*, *Colitis zegrus*, *Euchloe lessei*, *Anthocharus damone*, *Archon apollinus*, *Allancastris deyrollei*, *A. louristana*, *Hypermnestra helios*, *Melitaea*, Lycaenidae, *Agrodiaetus*. Many species from other families available. Ahmad Karbalaye, P.O. Box 11495-175, Tehran, Iran. Phone/Fax: 0098-21-7531604, karbalaye@yahoo.com 451

For Exchange: Oriental Lycaenidae (Thailand, Vietnam, Philippines, Malaysia, Indonesia) in exchange for other lycaenid species worldwide (except South America). Single specimens as well as longer series or lots (with full collecting data) are very welcome. I will also buy. Stefan Schroeder, Auf dem Rosenhügel 15, D-50997 Koeln, Germany, ste.schroeder@gmx.net 443

Equipment

FOR SALE: Quantum Black Light Bulbs. 100% more effective than current 350 black light bulbs. The new bulbs are the first advancement in UVA light technology in over 50 years. Available in 15 Watt 18" (F15T8), 20 Watt 24" (F20T12), 40 Watt 48" (F40T12) and 22 Watt Circline (FC8T9). Interchangeable with 350 black light bulb and operate with the same ballast. For a free color brochure and price list, contact: Leroy C. Koehn, 202 Redding Road, Georgetown, KY 40324-2622, 502-570-9123; Leptrops@aol.com. 451

For Sale: Traps for Collecting Lepidoptera. **Light traps:** 12 Volt DC or 110 Volt AC with 15 watt or 20 watt black lights. Portable and easy to use. Rain drains and sorting screens protect specimens from damage. Straight tube design provides 360 degree light visibility. Stainless steel or plexiglass vanes. **Bait Traps:** Three types available, Tropical, Inverted Funnel and Flat Bottom. 25" W x 36" H, nylon coated fiberglass screen with heavy cloth top, plastic zipper in side for access, and a plywood platform. Optional

shroud/hood provides dark area for moths to hide. For a free color brochure and price list, contact: Leroy C. Koehn, 202 Redding Road, Georgetown, KY 40324-2622, 502-570-9123; Leptrops@aol.com. 451

For Sale: Used Light Traps. Several used traps offered, all self-fabricated and in good to excellent condition. For prices and photos, please contact: Leroy C. Koehn, 202 Redding Rd., Georgetown, KY 40324-2622, 502-570-9123, leptrops@aol.com 443

Miscellaneous

Help! South America in 1986? Does anyone remember participating in a collecting trip to South America during the periods May 3-8 and/or September 25-30, 1986? I have a lot of neotropical papered material with no data except dates, all of which fall into those two periods. There's a decent chance the specimens were collected on a group trip, and if you took part in such an expedition, please tell me where you went. Any help or clues appreciated! Contact John Hyatt, 423-343-0067 (h) or jhyatt@eastman.com 443

Research Requests

Wanted: Correspondence with persons interested in any of the following (Nearctic and Palearctic species only): Papilionidae, Sphingidae, Arctiidae, *Catocala*. Exchange of livestock and/or specimens a possibility. Stephen Miller, 11200 Township Rd., Browns Valley, CA 95918, U.S.A. 451

Slide Exchange: I need A1 color slides of *Phyciodes texana seminole* from Florida and am able to trade for it with slides of Nearctic, Neotropical and/or Palearctic species. Please call 202-234-2401 to make arrangements. George O. Krizek, 2111 Bancroft Place, N.W., Washington, D.C. 20008. 451

Commercial

Fluttering Encounters in the Amazing Archipelago, a book by Jan Pasternak. The 30-year odyssey of a lepidopterist/naturalist in Papua New Guinea and Indonesia searching to

continued on pp. 25

California

Phylogenetic Relationships within Heliodinidae and Systematics of Moths Formerly Assigned to Heliodines Stainton (Lepidoptera: Yponomeutoidea)

Yu-Feng Hsu and
Jerry A. Powell

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Membership Update...

Julian Donahue

This update includes all changes received by 1 March 2003.

"Lost" Members

(publications returned: "temporarily away," "moved," "left no address," or "addressee unknown"):

Christian Adams (Alloway, NJ)

Lehman, Curtis A. (North Versailles, PA)

Minor changes/corrections to 2002 Membership Directory:

Bird, Charles Durham: Box No. is 22 (not 225)

Bodnar, Frank R.: new street number: 1211 Ridge Road

Brower, Lincoln P.: correct street name: 2850 Cub Creek Road

Long, Douglas: new street address: 41810 Road 724

Paris, Thomson: new street number: 1542 (not 1502)

Robinette, Randy: change name to James R. Robinette

Rota, Jadranka: add to address: Dept. of Ecology & Evolutionary Biology, University of Connecticut

Yoshimoto, Hiroshi: change city from "Tanashi" to "Nishi-Tokyo"

New/Reinstated Members:

for 2003 (included in 2002 Membership Directory, listed here by name only):

Krivda, Walter Vladamir

Selfridge, Jennifer

Staley, David (M.D.)

New and Reinstated Members:

members who have joined/renewed/ been found/or rescinded their request to be omitted since publication of the 2002 Membership Directory (not included in the 2000 Membership Directory; all in USA unless noted otherwise)

Balcazar-Lara, Manuel A. (Ph.D.): Facultad de Ciencias, Universidad de

Colima, Apdo. Postal 25, Av. 25 de Julio #965, Col. Villas San Sebastian, 28000 Colima, Colima, **Mexico.**

Barnhart, Barry W.: 10766 East 122nd Court North, Collinsville, OK 74021-5561.

Bouseman, John K.: Illinois Natural History Survey, 607 East Peabody Drive, Champaign, IL 61820-6917.

Bowman, Donald E.: 1602 Ulysses Street, Golden, CO 80401-2737.

Bunner, Terry: 2268 19th Street, Florence, OR 97439-9731.

Cooper, Liz: 8036 East Elderwood Avenue, Orange, CA 92869-5620.

Crolla, Jeffrey P.: 2-642 Dovercourt Road, Toronto, Ontario M6H 2W6, **Canada.**

Davidson, Jim (M.D.): [address omitted by request]

Dion, Yves-Pascal: 271 Leo-T.-Julien, Charlesbourg, Quebec G1H 7B1, **Canada.**

Fairey, Kenneth David: P.O. Box 626, Revesby, New South Wales 2212, **Australia.**

Gleghorn, Michael: [address omitted by request]

Grazulis, John E.: 4489 South Lincoln Street, Englewood, CO 80110-5730.

Henderson, Lauren (Ms.): 1528 Crescent Avenue, Oneida, NY 13421-7014.

Johnson, Michelle: 5234 Forest Road, Minnetonka, MN 55345-4329.

Kassarov, Luka (Dr.): 130 Spruce Street, Philadelphia, PA 19106-4323.

Keating, Kevin O'Neill: 29 Whitesands Way, Little Silver, NJ 07739-1241.

Kegley, Jonathan: 377 Reasoner Road, Apt. D, Honolulu, HI 96819-1537.

Klass, Carolyn: 36 Comfort Road, Ithaca, NY 14850-8637.

Krushnamegh, Kunte: Section of Integrative Biology, University of Texas at Austin, Austin, TX 78712-0253.

Lacoste, Erik: [address omitted by request]

Lane, Alex: 2533 Lake Charnwood Drive, Troy, MI 48098-2123.

Leski, Michael: 6121 Winsome Lane, Apt. 115C, Houston, TX 77057-5546.

Lindstrom, Richard D.: P.O. Box 10610, Bainbridge Island, WA 98110-0610.

McCaffrey, Joanna: 728 West Jackson Blvd., #1007, Chicago, IL 60661-5477.

Morton, Eugene S. (Ph.D.): 22318 Teepleville Flats Road, Cambridge Springs, PA 16403-5564.

Overton, Michael D.: 1341 274th Lane, Boone, IA 50036-7141.

Parker, Karen: 389 Parker Street, East Longmeadow, MA 01028-2616.

Rakosy, Laszlo: Societatea Lepidopterologica Romana, Str. Republicii 48, RO-3400 Cluj, **Romania.** [mistakenly omitted from Directory]

Ritland, David B. (Ph.D.): Department of Biology, Erskine College, P O. Box 338, Due West, SC 29639-0338.

Schwartz, Wade: 1907 West Carlisle Avenue, Spokane, WA 99205-3620.

Serrano, Scott: 76 Mill Road, Stone Ridge, NY 12484-5310.

Settele, Josef (Ph.D.): UFZ Leipzig-Halle, Theodor-Lieser-Strasse 4, D-06120 Halle, **Germany.**

Severns, Donald G.: 2526 North 21st Street, Springfield, OR 97477-1719.

Severns, Paul: 2824 Newton Place, Philomath, OR 97370-9209.

Shepard, Bill: 2310 Acton Street, Berkeley, CA 94702-2108.

Spivey, Tammy: [address omitted by request]

Steele, Susan: [address omitted by request]

Taylor, Thomas R.: P.O. Box 8042, New Haven, CT 06530-0042.

Tshikolovets, Vadim (Ph.D.): Zoological Museum, B. Khmel'nitsky Str. 15, Kiev-MSP, UA-01601, **Ukraine.**

Wu, Nan Xing: 2208 East 33rd Avenue, Vancouver, British Columbia V5N 3G1, **Canada.**

Address Changes:

included in 2002 Membership Directory, listed here by name only.

Albu, Valeriu (M.D.)

Babcock, Mary

Bray, Richard O.

Heath, Alan

Hernandez, Luis Roberto (Prof.)

Kawahara, Akito

Spencer, Lori

Address Changes

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

Abadjiev, Stanislav P. (Dr.): Flat 5, 81 Lyuiben Karavelov Street, BG-1142 Sofia, **Bulgaria.**

Atkins, Andrew: P.O. Box 42, Eudlo, Queensland 4554, **Australia.**

Barksdale, Charles M. (Ph.D., FRES): P.O. Box 174, Prairie du Sac, WI 53578-0174.

Beard, Brian M.: 2001 Held Road, Redwood Valley, CA 95470-9572.

Brown, Larry N. (Dr.): 5508 Touraine Drive, Tallahassee, FL 32308-5943.

Cadiou, Jean-Marie (Dr.): CCR, Casella Postale 97, 1 Via Fermi, I-21020 Ispra (VA), **Italy.**

Caruthers, Bonnie: 9 1st Crown Point Road, #D, Strafford, NH 03884-6100.

Cochran, Neil: 14901 SE 272nd Street, Apt. E306, Kent, WA 98042-8167.

De Swarte, David H.: 7617 La Roche Avenue, Savannah, GA 31406-6403.

Dohrn, Michelle (Mrs.): 6334 Harman Drive, Tujunga, CA 91042-3423.

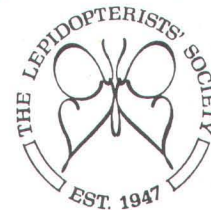
Drummond, Boyce A., III (Dr.) Natural Perspectives, P.O. Box 271644, Fort Collins, CO 80527-1644.

East, Raymond (Randy) James: 3630 Morris Farm Drive, Apt. 3A, Greensboro, NC 27409-8960.

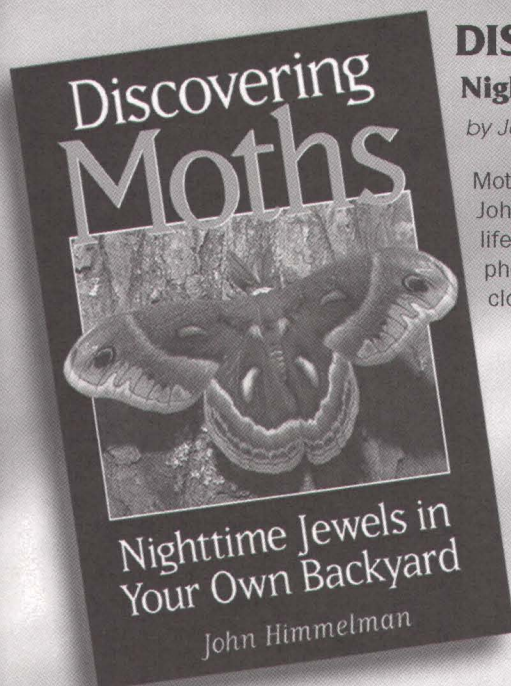
continued on pp. 26

Marketplace *continued...*

unravel the secrets of the mystical Ornithoptera. Spectacular photos, field notes and memoirs of an epic journey to historic localities tracing footsteps of the legendary naturalists A.R. Wallace, A.S. Meek, Pratts and others. Describes the life histories and habitats of virtually all species of Ornithoptera found in PNG, Indonesia and Australia. Includes field notes and photos of many other butterflies from the author's 30 years of field studies in this fascinating archipelago. Published 2000, HC, 23 × 30 cm, 136 pp, 204 color photos. Not many copies left. Limited offer at reduced price, USD \$75, shipping inclusive. Orders to Jan Pasternak, Rigrova 12, CZ-61200 Brno, Czech Republic, janarchipelago@aol.com.



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Membership...cont'd from pp. 25

Eisele, Robert C. (Rev.): 26 Shiloh Drive, Rochester, NH 03867-5166.

Fall, Louise: BioQuip Products, Inc., 2321 East Gladwick Street, Rancho Dominguez, CA 90220-6209.

Heffernan, Emily: 157 Dewitt Street, Apt. 4, Syracuse, NY 13203-2824.

Kistner, David H. (Prof. Emeritus): 3 Canterbury Circle, Chico, CA 95926-2411.

Lawrie, David D.: 104 South Grove Street, Apt. 1, Urbana, IL 61802-3401.

McClair, Leslie M.: 1958 Cooper Road, Madoc, Ontario K0K 2K0, Canada.

Pence, J. Akers: 318 SE 71st Street, Gainesville, FL 32641-7798.

Peterson, Stephen E., Jr.: 1207 Klondike Street, San Antonio, TX 78245-1508.

Riley, Thomas J. (Dr.): 160 Honeysuckle Court, Forsyth, MO 65653-8197.

Rolfs, Donald A. (D.D.S.): 508 Day Road, Wenatchee, WA 98801-2469.

Rubinoff, Daniel: 310 Gilmore Hall, Dept. of Entomology, University of Hawaii, 3050 Maile Way, Honolulu, HI 96822-2231.

Runquist, Erik B.: Section of Evolution & Ecology, 2320 Storer Hall,

University of California, Davis, CA 95616-5224.

Rusch-Fischer, Karen: 10821 West Alvarado Road, Avondale, AZ 85323-5475.

Sabourin, Michael: P.O. Box 92, Danville, VT 05828-0092.

Salvato, Mark H.: 1765 17th Avenue SW, Vero Beach, FL 32962-6872.

Stelnicki, Thomas D. (DPM): 7509 State Road 52, Suite 130, Hudson, FL 34667-6787.

Stephenson, Timothy A.: 8517 Prince Valiant Drive, Waxhaw, NC 28173-8864.

Ueda, Kyoichiro (Dr.): Kitakyushu Museum of Natural History & Human History, Higashida 2-4-1, Yahatahigashi-ku, Kitakyushu, Fukuoka 805-0071, **Japan.**

Wallenmaier, Thomas E. (Dr.): 1833 Torquay Avenue, Royal Oak, MI 48073-1222.

Walesz, Dave: 170 West Plumstead Avenue, Lansdowne, PA 19050-1345.

Wu, Pei-heng (James): Director, Formosa Insect Farm, 1, Lane 11, King-fu Street, Chuton, Hsinchu, **Taiwan, Republic of China.**

Young, Michael E. (Major): 9180 Sam Owings Place, Owings, MD 20736-8850.

New Publication**Scientific Names List for Butterfly Species of North America, north of Mexico.**

By P.A. Opler and A.D. Warren. Contributions of the Gillette Museum of Arthropod Diversity.

The retail price is \$18.00 (postage paid). This is the first list of scientific names of North American butterfly species prepared and reviewed by systematists since that of C.D. Ferris (1989).

This list contains the most current scientific names for 780 butterfly species (Papilionoidea and Hesperoidea). Authorship and date of publication (many corrected) are included. The original spelling of species names is given in accord with recent practices. Annotations with literature citations are given for many of the names as explanation for their current usage. Species are numbered for curatorial purposes. No subspecies are included in the current list in anticipation that they will be dealt with by the Synonymical catalogue in preparation by Jonathan Pelham. Significant input was provided by many lepidopterists, but especially significant input was provided by Gerardo Lamas (author of Neotropical checklist [in press] and Jonathan Pelham (synonymical catalogue of North American butterflies in preparation).

Also included are a list of Hawaiian butterflies and a list of species names excluded from the North American fauna (with brief explanations). The strength of this list is not only its currency, but the fact that approximately 480 references are provided that substantiate the names provided.

The list in 83 pages in length has clear plastic cover, black plastic back cover, and black coil binding for durability.

Payment should be made out to "Gillette Publications" and sent to same at Department of Bioagricultural Sciences, Colorado State University, Fort Collins, CO 80523 U.S.A.

New Publication Available**The Flora and Fauna of Wadena County, Minnesota.**

Part I: The Butterflies (*Lepidoptera: Hesperioidea and Papilionoidea*) of Wadena County, Minnesota. Scientific Publications of the Science Museum of Minnesota, New Series, Vol. 8, No. 1

About 164 species of butterflies are currently reported as occurring in Minnesota. The statewide status, distribution, flight periods, habitat preferences, and food plants are generally known for some of them, but these are known incompletely, if at all, for others. This paper reports on the 89 species thus far discovered in Wadena

County, Minnesota over a period of 40 years. It is the first published, detailed account of lepidoptera for any county in the state. As such, it is presented as a facilitory model that will hopefully promote the exploration of other counties. Species accounts are provided summarizing the currently known status for each of the 89 species.

To order this or any other publication of the Research and Collections Division of the Science Museum of Minnesota, contact Ellen Holt-Werle, Division Coordinator, 120 West Kellogg Boulevard, St. Paul, MN 55102, 651 221-9424 or eholt@smm.org

Making the Lep Soc a Richer Resource: Another Call for Help

James Adams, Chair of the Education Committee

jadams@em.daltonstate.edu

In the Autumn 2002 News (Vol. 44 (3): 85), John Snyder and I put out a call for help to make the Lep Soc website (www.lepsoc.org) a rich resource. If we really want the Society to grow and become more "user friendly" we need to have a website that is colorful, exciting, packed with important basic information, and easy to use for educators, novice lepidopterists, and even researchers. Hopefully, many of you have replied to John and provided him with help for the website. If you have not, then it is time to do so—we need your help. Remember, it is the members of this society that are its richest resource—we all have useful and unique information that can help others interested in learning about Lepidoptera.

Developing a FAQ...

One more request we have for the website, one that you can easily participate in, is the generation of a Frequently Asked Questions (FAQ) list. What John and I need from you are questions that you have been asked frequently about leps—please send your FAQ's to both John and me (John.Snyder@furman.edu & jadams@em.daltonstate.edu). Please understand we also need a concise, well thought out answer (no more than a paragraph, unless the question requires more!). Please feel free to send single questions (I know many of you have busy schedules, but single questions shouldn't take you much time); if many of you do so, we should generate a nice list quickly. Also feel free to ask us your own questions, ones for which you are unsure about the answer. We'll see what we can do about providing an answer, and including that answer on the FAQ section on the website. In the end, we intend to compile a list that will be posted on the LepSoc

website, and we will continue to add to it as more questions come in.

Speaking of the members as being the "richest resource", I think it is time that we make you, the membership, more "user friendly" as well. Many of you know that the best way to communicate with the younger "crowd" is by outreach in their own communities. I am certain that a number of the members prepare programs about Lepidoptera for neighborhood schools each year—I know I do. It would be nice, however, to be able to advertise our willingness to help with education even more.

Who's Who?

Phil Schappert, our Newsletter editor, has a website called "The Online Lepidopterists' Who's Who" (www.esb.utexas.edu/philjs/olww/olww.html). Phil has (obviously) been involved in numerous other endeavors, and understandably has not been able to move forward much with the list recently. It would be great if this list could be incorporated in some fashion into the Lep Soc website, geographically searchable, so that educators across the country could go to the website and quickly find out what help/expertise is available in their "neck of the woods". Phil is quite willing to part with the list if others would be willing to update and modify it as a searchable database for the Lep Soc website. *Anyone want to volunteer to help with this project?* Please understand that you do not have to commit to converting the whole list—any help will be appreciated. Phil can be contacted (philjs@mail.utexas.edu) to find out more of the details about the current content of the website and formatting changes that might need to be made. John Snyder can also help you with conversion questions.

Yes, I am fully aware that not everyone who is listed on the OLWW website is a member of the Lep Soc. After serious consideration, I personally feel that everyone on the list who so desires, including non-members, should be kept on the list as it is transferred to the Lep Soc website. If we are truly going to provide help and education for others, then I say we should provide as much information as we can, including non-Lep Soc contacts. For those of you who are Lep Soc members but not on the OLWW, should you want to be included on the Lep Soc website list as a possible contact/speaker in your community, then please send us your information, or at least give us an indication that we can include you on the list. Be aware that only those who give their explicit permission to post their contact information will be included on the Lep Soc contact list.

If the Society does follow through on this, it will be important to keep the information up to date. That responsibility, of course, falls to the individual. I should point out that, even if the "Who'sWho" list is not immediately incorporated into the Lep Soc website, that it is still the responsibility of members to keep their membership information up to date with Julian Donahue, who is currently keeper of the "Membership List." It is published every other year (you should have just gotten the 2002 edition). I know for a fact that there are a number of area codes that were changed at least three years ago (as currently listed area codes were wrong even in the 2000 edition) and the members have yet to make the corrections! Check your current membership listing! Help the Society, and people trying to contact us, by keeping

continued on pp. 30

Trees Associated with Louisiana Butterflies

Gary Noel Ross

6095 Stratford Avenue, Baton Rouge, LA 70808, gnr-butterfly-evangelist@juno.com

Butterflies are often associated with flower-filled gardens and wildflower meadows. After all, most butterflies feed on the liquid nectars produced by flowers and are important pollinators for the plant kingdom, also. However, as part of their own reproductive cycles, female butterflies usually select specific plant species for egg-laying. Termed hosts, these plant species can vary from woody trees and shrubs to seasonal herbs. While some butterflies are restricted to only one host, other butterflies have a broader range; however, these usually belong to either a single plant family or a cluster of related families.

During a recent research project involving a comprehensive survey of host plants utilized by Louisiana butterflies, I was very surprised to learn that of the state's 117 resident butterfly species, at least 38 (33 percent) utilize woody species directly or indirectly as hosts. Because trees and tall shrubs produce considerable shade—a definite no-no for most high-nectar plants—I have often failed to mention the importance of woody species when giving programs on gardening for butterflies. Now, having completed my survey, I certainly will have to amend my presentations. (Of course, tall, woody species should be located on the periphery of the garden or even in a slightly distanced landscape.)

The accompanying tables list Louisiana native and exotic trees (and shrubs) along with the butterflies they are associated with or host.

Checklist of Louisiana Butterflies Associated with Trees

Swallowtails:

1. zebra (*Eurytides marcellus*)
2. giant (*Papilio cresphontes*)
3. eastern tiger (*Papilio glaucus*)

4. spicebush (*Papilio troilus*)
5. palamedes (*Papilio palamedes*)

Sulphurs:

6. clouded (*Colias philodice*)
7. orange (*Colias eurytheme*)
8. cloudless (*Phoebis sennae*)
9. little yellow (*Eurema lisa*)
10. sleepy orange (*Eurema nicippe*)

Lycaenids:

11. harvester (*Feniseca tarquinius*) (feeds on aphids on trees)
12. great purple hairstreak (*Atlides halesus*) (feeds on mistletoe in trees)
13. banded hairstreak (*Satyrium calanus*)
14. striped hairstreak (*Satyrium liparops*)
15. southern hairstreak (*Satyrium favonius*)
16. Henry's elfin (*Callophrys henrici*)
17. eastern pine elfin (*Callophrys niphon*)
18. 'olive' juniper hairstreak (*Callophrys gryneus gryneus*)
19. white m hairstreak (*Parrhasius m-album*)
20. gray haistreak (*Strymon melinus*)
21. red-banded hairstreak (*Calycopis cecrops*)
22. Reakirt's blue (*Hemiargus isola*)
23. spring/summer azure (*Celastrina ladon*)

Snout:

24. American snout (*Libytheana carinenta*)

Brush-Foots:

25. question mark (*Polygonia interrogationis*)
26. eastern comma (*Polygonia comma*)
27. mourning cloak (*Nymphalis antiopa*)
28. American lady (*Vanessa virginiensis*)
29. painted lady (*Vanessa cardui*)

30. red-spotted purple (*Limenitis arthemis astyanax*)
31. viceroy (*Limenitis archippus*)
32. hackberry emperor (*Asterocampa celtis*)
33. tawny emperor (*Asterocampa clyton*)

Skippers:

34. silver-spotted skipper (*Epargyreus clarus*)
35. long-tailed skipper (*Urbanus proteus*)
36. Juvenal's duskywing (*Erynnis juvenalis*)
37. Horace's duskywing (*Erynnis horatius*)
38. zarucco duskywing (*Erynnis zarucco*)

Checklist of Louisiana Trees and Shrubs Associated with Butterflies

Tree/Shrub	Butterflies
alder, hazel alder, <i>Alnus serrulata</i>	3, 11, 27
althea, rose-of-Sharon, <i>Hibiscus syriacus</i>	28, 29
ash (Carolina, green, white), <i>Fraxinus</i> spp.	3, 13, 14, 27
basswood, linden, lime tree, <i>Tilia americana</i>	3, 19, 27, 30
bay (red, swamp red), <i>Persea borbonia</i> , <i>P. palustris</i>	4, 5
bay (white, sweet), swamp laurel, <i>Magnolia virginiana</i>	3, 4, 5
beech (American), <i>Fagus grandifolia</i>	11
birch (river), <i>Betula nigra</i>	3, 14, 27
bladder nut (American), <i>Staphylea trifolia</i>	2
blueberry (high bush), <i>Vaccinium corymbosum</i>	14, 16, 23

continued on pp. 30



Butterflies Associated with Trees and Shrubs in Louisiana

1. Palamedes swallowtail (*Papilio palamedes*) on *Liatris*; 2. Female eastern tiger swallowtail (*Papilio glaucus*) at *Buddleia*; 3. zebra swallowtail (*Eurytides marcellus*) on *Phlox*; 4. spicebush swallowtail (*Papilio troilus*) on thistle; 5. mature larva of zebra swallowtail on pawpaw; 6. mature larva of spicebush swallowtail on tulip tree. Photos by Gary Noel Ross.

Trees...continued from pp. 28

boxelder, black maple, <i>Acer negundo</i>	13	hazel nut (American filbert), <i>Corylus americana</i>	3	plum (Amer., Mex.), <i>Prunus americana</i> , <i>P. mexicana</i>	3, 14, 16, 23, 29
buckeye (red), <i>Aesculus pavia</i>	23	hickory, <i>Carya</i> spp.	3, 13, 14	poplar (tulip, yellow),	3, 4
camphor, <i>Cinnamomum camphora</i>	3, 4	holly, <i>Ilex</i> spp.	16, 23	tulip tree, <i>Liriodendron tulipifera</i>	
cassia, senna, <i>Cassia</i> spp.	7, 8, 9, 10	hop hornbeam (eastern, American), eastern iron wood, deer wood, <i>Ostrya virginiana</i>	27, 30	poplar (white), <i>Populus alba</i>	27, 30, 31
catalpa, Catawba, <i>Catalpa bignonioides</i> , <i>C. speciosa</i>	3	hop tree (common), hop wafer tree, wafer ash, quinine tree, potatochip tree, <i>Ptelea trifoliata</i>	2, 3	prickly ash (northern, common), toothache tree, angelica tree, suter berry, pepper wood, <i>Zanthoxylum americanum</i>	
cedar (red), <i>Juniperus virginiana</i>	18	hornbeam (American), iron wood, lean tree, musclewood, <i>Carpinus caroliniana</i>	2, 14, 30	privet, <i>Ligustrum</i> spp.	23
cherry (black), <i>Prunus serotina</i>	3, 14, 16, 23, 30, 31	huckle berry, <i>Gaylussacia</i> spp.	16	rattlebox, <i>Sesbania/ Daubentonia</i> spp.	38
chestnut, <i>Castaea</i> spp	13, 14	juniper, <i>Juniperus</i> spp.	18	redbud (eastern), Judas tree, <i>Cercis canadensis</i>	16
choke berry (red), <i>Pyrus/Photinia/Sorbus</i> spp.	3, 14, 27	locust (black, honey, water), <i>Robinia/Gleditsia</i> spp.	6, 34, 35, 38	sassafras, gumbo file, <i>Sassafras albidum</i>	3, 4, 5
citrus, <i>Citrus</i> spp.	2, 20, 29	maple, <i>Acer</i> spp.	27	service berry, bilberry, <i>Amelanchier arborea</i>	14, 31
coral bean, mamou, <i>Erythrina herbacea</i>	23	mesquite (honey), <i>Prosopis glandulosa</i>	22, 35	snowbell, mock orange, <i>Styrax</i> spp.	3
cottonwood (eastern, swamp), poplar, <i>Populus deltoides</i> , <i>P. heterophylla</i>	3, 27, 30, 31	mimosa, silk tree, <i>Albizia julibrissin</i>	22	spice bush, <i>Lindera benzoin</i>	3, 4
crab apple, <i>Malus</i> spp.	3, 13, 14, 20, 23, 30, 31	mulberry (red), <i>Morus rubra</i>	27	sumac, <i>Rhus copallina</i>	21
cucumber tree, cucumber magnolia, <i>Magnolia acuminata</i>	3	oak, <i>Quercus</i> spp.	12, 13, 14, 15, 19, 20, 21, 23, 30, 36, 37	sweet acacia, <i>Acacia farnesiana</i>	34
Devil's walkingstick, <i>Aralia spinosa</i>	23	orange (trifoliata), <i>Poncirus trifoliata</i>	2	titi, American cyrilla,	16
doghobble (swamp), <i>Leucothoe racemosa</i>	16	pawpaw (common, dwarf), <i>Asimina triloba</i> , <i>A. parviflora</i>	1	leather wood, <i>Cyrilla racemiflora</i>	
dogwood, <i>Cornus</i> spp.	23	peach, <i>Prunus persica</i>	3	toothache tree, southern prickly ash, Hercules club, tongue bush, <i>Zanthoxylum clava-herculis</i>	2
elm, <i>Ulmus</i> spp.	25, 26, 27, 29	pear, <i>Pyrus</i> spp.	14, 30, 31	viburnum, haw, <i>Viburnum</i> spp.	16, 23
gopher apple, <i>Licania michauxii</i>	31	pecan, <i>Carya illinoensis</i>	14, 20	walnut (black), <i>Juglans nigra</i>	13
hackberry, <i>Celtis laevigata</i>	24, 25, 27, 32, 33	persimmon, <i>Diospyros</i> spp.	16, 20	wax myrtle, <i>Myrica cerifera</i>	21
hawthorn, <i>Crataegus</i> spp.	3, 14, 20, 30, 31	pine, <i>Pinus</i> spp.	17, 20	willow, <i>Salix</i> spp.	13, 27, 30, 31
				witch hazel, <i>Hamamelis virginiana</i>	23

Help!...continued from pp. 27

your membership information up-to-date, including current e-mail addresses. It only takes a minute or two to email or phone Julian with corrections or additions! Contact him at **Bugbooks @aol.com** or (323) 227-1285.

Community Meetings?

Having already spoken of community presentations, I (and others) would also like to suggest that we develop a community presentation program to go with the Annual Meetings. Apparently, this idea is already supposed to be in the meeting planner, passed on to organizers of upcoming meetings. If it is not,

then it is time to resurrect this idea. What a way to make a lasting impression on the cities we visit—have willing Lep Soc members give presentations to the local educators, scout groups, summer camp groups, etc! It would also give us a chance to spread information about the Lep Soc itself. My thoughts are that it would probably be best to schedule

this either on the day before the actual meeting (the day the executive council meets) or on the Sunday at the end of the meetings. It would, of course, be necessary for the members in the host city to arrange a meeting place with appropriate presentation equipment and get announcements out in the community. But I don't believe this would require a lot of extra work. Remember, schools will likely be out for the summer, and so we really can't target school classes. Still, we certainly want to try to reach the youngsters.

We would, of course, need volunteer presenters for the community presentations but this should not be a problem. As I said above, I know that there are a lot of you who already give talks to groups in your own community. Surely there will be people attending every meeting who already have "ready-to-go" talks (slide shows, Powerpoint presentations, etc.) that they can bring with them. Indeed, it should represent virtually no extra work for those presenting, other than doing the presentation itself. Volunteer! Send me your name as a willing participant. I know not everyone attends every meeting, but I assume I will receive so many volunteers that I'll have a list of willing people that will cover every Annual Meeting for years to come. I'll certainly be the first to volunteer for this program.

An Online Event Calendar...

One more item that you, the members, can easily help with is the development of a Calendar page on the Lep Soc website. Right now we have the Annual

Meetings page which tells solely about the upcoming Annual Lep Soc Meeting. Certainly, however, there must be other events occurring that Lep Soc members and non-members alike would like to know about. International and regional societal meetings, ESA meetings, insect travel programs, etc. could all be listed. This would help everyone stay aware of what's going on in the world of Lepidoptera, and provide them with information on additional opportunities to get together and talk leps!

And, one more time, I'll make a plea to the membership to use your website. John Snyder has done a fine job of putting the website together. But you can help make it even better with your suggestions. And don't forget to use the new Unknowns Page; you can post your pictures of leps unknown to you, tap into the expertise of the Society, and hopefully get a positive identification!

When I was asked last summer to chair the education committee, I was very hesitant. Why? Because, although many members have told me that they want the Lep Soc to grow/to provide services to young people to attract new members, it seems that very few people are willing to do anything about it personally. PROVE ME WRONG! If Phil will let me, I plan on making the "Call for Help" a semi-regular feature in the Newsletter. So don't think you can just ignore me. I'll keep coming back like a case of indigestion for someone stricken by GERD!!

My thanks to both John Snyder and Julian Donahue for providing useful comments on the ideas presented here.



From the Editor's Desk

Phil Schappert

Not much to say, and no room to say it and I also had more material than I could use...just the way I like it!

My apologies to those whose submissions didn't make it into this issue. Keep 'em coming folks!

New Book Release

The Saturniidae of America: Hemileucinae.

By Claude Lemaire, 2002. Published by Goecke & Evers, Keltern, Germany.

Claude Lemaire's long awaited revision of the saturniid subfamily Hemileucinae is finally out! It consists of three large hardbound volumes, the third one containing 126 color plates of adults, and 14 more color plates showing more than 100 caterpillars. The color plates are glossy, and show hundreds of beautiful specimens of *Automeris*, *Hemileuca*, *Coloradia*, *Dirphia*, etc. There are also 185 distribution maps. There are over 670 known species and 49 genera covered in this beautiful monograph. The text is 972 pages long, in English, with French summaries for each genus and species. The price is 340 euros. If you do not buy a set yourself, consider asking a nearby university or museum library to order a set. The publisher accepts credit cards, and orders can be taken by email. Publisher: Goecke & Evers, Sportplatzweg 5; 75210 Keltern, Germany, books@insecta.de, www.goeckeevers.de



Bulbs...continued from pp. 21

5000 hours. This is due to the re-engineered spectral power distribution of the bulb, giving it a sharpened peak of 365 nanometers, (the optimum level for flying insect eye activity) double that of any standard 350 black light bulb.

Although designed primarily for the pest control industry, the new Quantum Black Light bulbs emits light with an effective attractive travel distance 60% greater than the current 350 black light bulbs. Simply put, the new Quantum Black Light Bulbs emit a UV light that extends out farther from the bulb, attracts more moths and has a longer effective bulb life.



Photo Essay...

Neophasia terlootii

Above is a combo photo of *Neophasia terlootii*. Females are on the left and males are on the right. The pictures were taken on October 29/30, 2002 between noon and 2:00 PM, in Garden Canyon in the Huachuca Mountains in South East Arizona. The butterflies are a little worn because they fly in and around the long pine needles.

Some females would dive right into the needles and sink down in as they moved around. I saw one male do this and then immediately saw a female fly out. It did not make for the easiest or best photographs.

I was looking for the opportunity to get photos of good specimens and spotted a clean-looking male at a yellow flower. When I got up close and started taking pictures, I noticed that its legs were not holding on to the flower. Then I saw the yellow spider (left) that had been hiding at the flower and had ambushed my subject. The spider was not very big and appeared to be having trouble handling the butterfly. Later I found the butterfly dead—but uneaten—on the ground.

Photos and captions by Steve Grazer.





Photo Essay...

Backlight

Here are some backlit photos taken at Garden Canyon, Huachuca Mountains, Arizona at the end of October. With backlighting, the butterflies wings become little stained glass windows. When I see the opportunity for this type of picture, I turn off the flash and use a shutter priority setting with the shutter speed set to a minimum of 125 to eliminate camera movement. The aperture becomes larger so the depth of field shrinks and the challenge is to be accurate enough and hold still enough to have the butterfly be within the tiny plane that is in focus. A tripod would be ideal, but there is rarely enough time to get it set up. **1.** *Neophasia terlootii*, **2.** *Eurema mexicana*, **3.** *Colias cesonia*, **4.** *Eurema proterpia*.

Photos and captions by Steve Grazer.

An Elegant Skipper

This elegant skipper (right) is one of my favorites. It was identified by Andy Warren as *Pythonides jovianus*. Taken at Yasuni, Ecuador on Sept. 9, 2002 at 9:17 AM.

Photo and caption by Steve Grazer.



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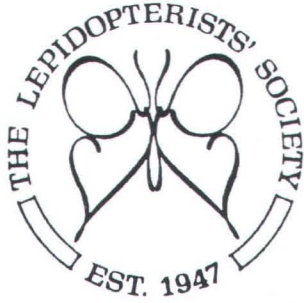
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The Lepidopterists' Society

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at Periodical Postage
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Los Angeles, CA
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mailing office.



**The Death's Head Hawk-
moth, *Acherontia atropos*.**

Larva (left), additional views of the
adult moth (above and front cover).
Photos provided by Axel Steiner.

See this issues' installment of *Tails &
Tales*, by Pat Durkin, for the whole
sordid story!