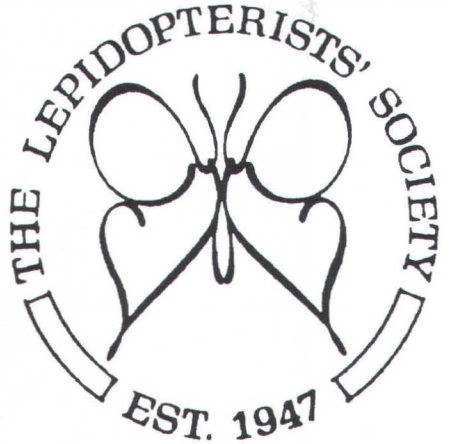
Volume 47, Number 3 Autumn 2005



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NEWS OF THE LEPIDOPTERISTS' SOCIETY

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Volume 47, No. 3 Autumn 2005

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Issue Date: October 1, 2005 ISSN 0091-1348

Front Cover: The Brassoline *Opsiphanes cassina fabricii* (Boisd.).

Freshly emerged, it shows cryptic color and pattern similar to the color and pattern of the banded eye, suggesting these areas have a single overall display function. See the article on banded-eye patterns by Gerald Einem beginning on pp. 81. Photo by Gerald Einem, taken in La Penita de Jaltemba, Nayarit, Mexico.

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.

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Floyd Preston Discovers Schmitt Box

Ranger Steven J. Mueller

Ody Brook Enterprises, 13010 Northland Dr., Cedar Springs MI. 49330-08433. USA, Odybrook@chartermi.net

In 1938, at the age of 15, Floyd Preston saw inexpensive redwood Schmitt type boxes being used for packing fruit at the market. He recognized they were what he needed for his insect collection. He inquired with the vendor where he could buy the boxes because he knew he could not afford to buy them filled with the fruit.

His dad took him to the vendor the next day to learn where to purchase the boxes. Floyd bought eighteen boxes (Fig. 1, see pp. 76) for 50 cents each. Coincidentally, this was the same manufacturer that produced the boxes used by Rudi Mattoni's BioMetal Associates in 1947. The company later was sold and became BioQuip Products. BioQuip still uses the same vendor for their redwood Schmitt boxes. The boxes are no longer made from one piece of redwood like they were in 1938 and they lack the cover picture.

Floyd and June now place Plastizote in the boxes as the pinning bottom. In Preston's Portable Pad and Lepidopterology Lab they constructed a cabinet to holds the boxes (Fig. 2, 3, 5, pp. 76). In 1983 the Prestons visited my home for a couple of days where it was my honor to take them to a collect fresh *Colias interior*. The specimens were mounted in their Lepidopterology Lab. The Schmitt boxes carried the butterflies—like thousands before, and after—to the Allyn Museum.

Floyd and June continue to make Lepidoptera history (Fig. 4, pp. 76) in their Portable Pad and Lepidopterology Lab using the original Schmitt boxes he acquired 67 years ago. Louise Fall and I enjoyed the collecting box history, then Louise explained how BioQuip came to carry the boxes.

Lepid. Soc. meetings are not just about Leps. There is the always-interesting human side of the story. Do not miss the 2006 meeting in Gainesville Florida.

The New California Biathlon: Spring Skiing and Lepidoptery

Margaret F. Sherriffs

Center for Population Biology, University of California, Davis, CA 95616

During a late-season backcountry ski trip in Sequoia National Park (Tulare County, CA), the discovery of an adult female Common Buckeye butterfly (*Junonia coenia* Hübner [Nymphalidae]) helped to compensate for the "mashed potato" snow conditions. The female (see photos on pp. 77) was found on May 15, 2005 at approximately 9800 feet (2987 m); she was resting on the snow near tree line on a west-facing slope below Silliman Lake. It was a warm, partly overcast afternoon. Snow cover was deep and complete, down to about 7000 feet; the only exposed vegetation was sparse, windblown pines. Many other insects, including Ichneumonoid wasps, leafhoppers, flies, and small hemipterans, were scattered about the snow on the same slope.

Finding a Buckeye so early in the year was unusual, especially under these conditions. Widespread in the southern United States, it is thought to overwinter further south and is known to spread into a temporary breeding range during the summer, where it can produce 2 or 3 broods in a season (Struttman 2005; Shapiro pers. comm.). In California, *J. coenia* is usually a resident of the foothill valleys (Comstock 1989) favoring open, weedy habitats (Garth and Tilden 1986).

The appearance of this single female on a snowy slope at tree line was striking. Most likely a stray from an early foothill brood; it is not yet known whether her spring presence in the sub-Alpine zone was the first indication of unusual activity this summer.

References

Comstock, John A. 1927. *Butterflies of California*. Los Angeles, CA. Reprint: Scientific Publishers, Gainesville, FL, 1989. 334 pp.

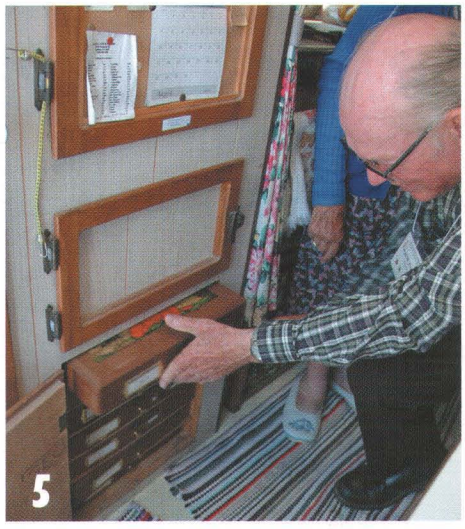
Garth, John S. and G. W. Tilden. 1986. *California Butterflies*. University of California Press, Berkeley. 246 pp.

Mani, M.S. 1968. Ecology and *Biogeography of High Altitude Insects*. Dr. W. Junk N.V. Publishers, The Hague. 527 pp.

Shapiro, A.M. 1973. Altitudinal Migration of Butterflies in the Central Sierra-Nevada USA. *Journal of Research on the Lepidoptera* 12 (4): 231-235

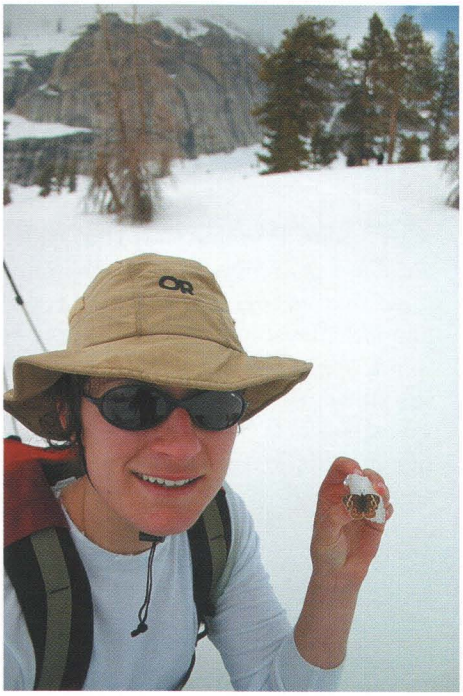
Shapiro, A.M. 1974. Altitudinal Migration of Central California USA Butterflies. *Journal of Research on the Lepidoptera* 13(3): 157-161

Struttmann, Jane M. 2005. Common Buckeye (*Junonia coenia*). Butterflies of North America, USGS Northern Prairie Wildlife Research Center. ***www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/175.htm***



Floyd Preston & The Schmitt Box

Floyd & June Preston, the original Schmitt box, June's spreading board and their "Portable Pad and Lepidopterology Lab." See Ranger Steve's story at the top of the previous page. Photos by Ranger Steve Mueller.



Coenia in the Snow!

Maggie Sherriffs (left), and an unusual find—a female Buckeye, *Junonia coenia* (right) on the snow-covered slopes of Sequoia National Park at 9800 feet (2987 m) on May 15, 2005. See her report on pp. 75. Photos by Alex Sherriffs.

Above: Final instar larva of *Citheronia volcan*, Dec. 12, 2004, found in leaves of hostplant *Microtropis occidentalis* (Celastraceae). See life history notes beginning on pp. 84. Photo by Miguel E. Chumpitasi.

Right: Head of *Parnassius clodius* (Papilionidae). Taken with a Canon MP-E 65mm close-up lens set at 3× near Lake Tahoe, CA, July 31,2005 by photographer Steve Graser (***segraser1@pacbell.net***). Steve remarks that it was not difficult to creep up within the 2" (5 cm) necessary to get this shot because while he was tracking the butterfly a cloud covered the sun and this species tends to land and will not fly, even when touched, until the sun reappears. He also suggested that this male was having a "typically bad hair day."

The Lepidopterists' Society...

Minutes of the 2005 Annual Business Meeting
August 7, 2005, Sierra Vista, AZ

1. With effective use of the gavel, President James Adams called the meeting to order promptly at 10:00 a.m. in the Windemere Conference Center.

2. In his presidential remarks, President Adams first wished his mother, Eleanor Adams, a happy birthday, and the assembly joined in. He also gave thanks to the members of the Executive Council and the Society's committees for all their help.

3. He then called for a moment of silence to remember all those members of the Society, including Stan Nicolay, who had passed away during the past year.

4. President Adams called on Secretary Ernest Williams to report on the work of the Executive Committee. The report summarized the important actions and discussions undertaken by the E.C.

> First, he stated that the Society is financially strong, and compared to most years, the E.C. spent little time in its meeting on budgets and publications. We were in the black for the previous year based on our regular income and expenses, and our financial status was strengthened even further by the bequest to the Society from the estate of Bryant Mather.
>
> Publications are among our most important activities, with most of our expenses going into the **News** and **Journal**, so the E.C. always spends time on these matters. No new decisions were made about the **News**, but as has been announced previously, Phil Schappert will end his tenure as Editor at the end of this year, and Dale Clark will begin his term as Editor. No new memoirs are in the works, but only about 160 copies of the techniques manual are left; it will likely be out of print within two years, so if you haven't bought one, you should do so now!
>
> A few changes are happening with the **Journal**. The E.C. approved adding color to the cover, and that change should be happening soon. Also, the E.C. is funding the creation of PDFs of all past **Journal** articles, which will become available via the Society's website. To keep all these files, we estimate the need for three gigabytes of storage.
>
> Most new members to the Society come *via* the website (***www.lepsoc.org***), so the site is being developed further, particularly with the addition of more education materials. The E.C. engaged in extensive discussion about tweaking what we do to better serve the membership. These discussions will continue.
>
> As previously announced, next year's annual meeting will be at the McGuire Center in Gainesville, FL, June 14-18, 2006. The E.C. approved holding the 2007 meeting during the second week of July in Bakersfield, CA, and we have begun planning to hold the 2008 meeting in the southeastern U.S.
>
> Secretary Williams also noted that within the past year, the E.C. approved moving the Society's archives to the McGuire Center, and in our meeting we received a report on that move. We also instituted the Winter Service Award, the first winner of which, Julian Donahue, was announced at the previous evening's banquet.
>
> In response to this report, Jackie Miller asked whether the techniques manual would be reprinted, and the answer is that the E.C. will consider that possibility later on. Paul Opler asked about the status of the Society's database, and Secretary Williams replied that it is still on an old computer system with Julian Donahue but that the database is archived regularly in a form that can be extracted for use in another system. Paul pointed out that many of the email addresses in the database no longer work; he said this list is important for sending members information about annual meetings, and he noted that by far, most of the forms returned for this meeting were electronic. Kelly Richers said he would work with Julian in modifying the dues form to ask specifically for updates of email addresses. Eric Metzler suggested regular testing of the email addresses. Kelly also noted that more and more payment on our dues form is by credit card.

5. President Adams then opened the floor for discussion among the membership. Charlie Covell moved that the Society send heartfelt thanks to Phil Schappert for his fine efforts in editing and developing the **News**, and that the President send Phil a written letter to that effect. There were numerous seconds, and the motion passed unanimously.

Expressing his concern about increasing xenophobia in this country, Andy Brower asked whether we should do something about the inability of several Mexican students to obtain visas to come to the Sierra Vista meeting. Several people gave explanations of what happened and how to avoid it. Although the students started the process with the U.S. consulate months in advance, they should have started even earlier; their appointments were scheduled too late to get the necessary visas. Global terrorism has lengthened the process for approval. The suggestion was made that the Society's website point out to those who need visas that they should begin at least six months ahead of time.

A question was raised about records for the Season Summary, and President Adams clarified the on-going issue about nomenclature. Bruce Willey asked about placing statements of purpose and procedures at the front of the Season Summary, to which Susan Weller replied that these would be incorporated into a charge to the Season Summary zone coordinators.

Stan Gorodenski suggested sending out the *News* by PDF or at least providing a notice about it being available on-line. This is something we will look into. Susan Weller commented that we could send notifications about PDFs being available, but that we shouldn't send PDFs automatically.

6. At that point, Amanda Roe came to the podium to present a story entitled, "Twas the night before Lep Soc." The tale had been put together by the grad students present and included resolutions about the Sierra Vista meeting. It received strong applause from the assembly. The tale is printed at right.

7. President Adams then called Felix Sperling forward to receive the antennae and gavel of office. As he received them, Felix tried out the antennae in several different anatomical positions, but, biologist that he is, he then returned them to the usual location.

8. Incoming President Felix Sperling said we expect to see you all in Gainesville next year and then adjourned the meeting at 10:36 a.m.

Ernest H. Williams,
Secretary

Resolutions...

'Twas the night before Lep. Soc.

Twas the night before Lep. Soc. and all through the land,
Many leppers were coming, nets and cameras in hand.
Evi and Paul weren't settled all snug in their bed,
They took care of the program and everyone did as they said.

Into to the canyons the field trips went,
The watchers and collectors on getting good species were bent.
Ethyl and envelopes, alcohol and vials,
Copper and Carr brought bugs by the *Pyles*.

The joint meeting with SEABA brought us together,
Thanks to Libby and Hank it couldn't have been better.
In a flurry of talks, like the Mexican crew,
From tricorders to trees, our interest then grew.

More rapid then moths the descriptions came clear,
But the character descriptions were something to fear.
Now Goldstein, Now Sperling! Solis and Weller!
They flew through the talks, each a nice feller.

It was form, it was function, connection and such,
Assessing issues in homology all meant so much.
The students took over it was pleasantly clear,
A student symposium will be around many a year.

We dined by a wagon, where we ate our fill,
Then with his ukulele, John's music did thrill.
With Bob's harmonica, they finished the night,
Another great barbeque to all our delight.

The inestimable James, a job well done!
Felix comes next, his words they do run.
Preston and Donahue, their life's work we do praise,
To students Jenn and Doug, applause we did raise.

Between now and '06 the research will aspire,
We look forward to seeing you, down in McGuire.
See you in Florida we hope you will come
And remember when you pack: leave the spray, GRAB THE GUM!

Amanda Roe,
and the Student Santas

Announcement...

Constitutional Amendment for the Fall Ballot

Ernest H. Williams, Secretary

The ballot to be mailed this fall will include an amendment to alter Article X of the constitution. This article sets a deadline of December 31 for the auditing committee to submit their report of the treasurer's accounts, but it is obviously difficult for the committee to meet that deadline when reporting on the calendar year. The amendment proposes changing the deadline to March 31.

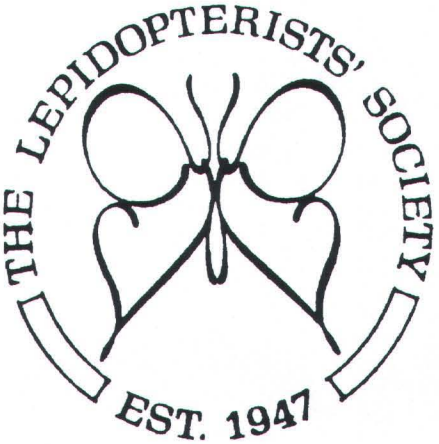


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Fig. 1 Enlarged anterior region of the brassoline, *Opsiphanes* sp. showing the alternate dark and light dorso-ventral eye bands. The light-colored bands are due to pigment layers close to the surface overlying the black pigment beneath. Without light-colored bands the eye would be entirely black as in most swallowtail butterflies. Photo by Robert Einem.

Fig. 2 Enlarged anterior region of the satyrine *Taygetis* sp. showing banded eyes. The black bands are constricted except for a central pseudopupil-like spot. The light-colored bands cover most of the eye and the color is very similar to the body and wing color. The narrow width of the black bands, making them difficult to see, may be related to the absence of black patterns on the butterfly's body or basal wing surface and thus promotes a more uniform display of the color of the body and ventral wing surfaces. Photo by Gerald Einem.

Fig. 3 The brassoline *Opsiphanes cassina fabricii*,(Boisd.). Freshly emerged (see full frame on front cover), it shows a cryptic color and pattern similar to the color and pattern of the banded eye, suggesting these areas have a single overall display function. In other species of brassolines the dark banding is also seen on the thorax (See Fig.1). The eye-like ocelli on the wings may attract or repell predators away from vital body parts while cryptic colors and patterns obscure these regions. Note also the retracted antennae. Photo by Gerald Einem.

All photographs were taken in La Penita de Jaltemba, Nayarit, Mexico.

Banded Compound Eyes of Butterflies: Structure and Function,
a brief review and some thoughts

Gerald E. Einem

La Peñita de Jaltemba, Nayarit 63726, México, **happy_wren@yahoo.ca**

My interest in the banded eye patterns of butterflies was first sparked by close inspection of the eyes of an owl-butterfly, a member of the subfamily Brassolinae. My brother, visiting my home in México, photographed the butterfly in my garden, but I did not see the photo until I visited his home in California nearly a year later. He had scanned the photo into his computer and enlarged the head. Looking at the compound eye of the butterfly, I was fascinated by the remarkable alternate dark and light dorso-ventral banding (Fig. 1). That same day, while paging through a book by Vesco and Starosta (2001), I came upon a photo of a glass-winged ithomiine, *Greta morgane oto* Hew. Lám., having eye bands similar to those of the owl-butterfly.

It occurred to me that the brassolines have many crepuscular species and the ithomiines often fly in dimly-lit forest environments. Perhaps, I thought, there are other banded eyed butterflies with similar habits. Looking for good pictures of the eyes of satyrines, close relatives of the brassolines but not ithomiines (Gilbert & Ehrlich 1970), I examined the plates in a book by Opler and Krisek (1984) and found a photo of the Creole Pearly Eye, *Enodia creola* (Skinner), which clearly shows the nearly vertical bands seen in the other butterflies. Moreover the American Snout butterfly, *Libytheana carinenta* (Cramer), subfamily Libytheinae, has a series of broken black eye bands (Glassberg 2002, photo pp. 121).

Since these initial discoveries, I have inspected the eyes of many butterflies in photos, pinned specimens and living specimens from many families and subfamilies but only found the dorso-ventral bands in libytheines, ithomiines, brassolines and satyrines, all members of the family Nymphalidae.

Many questions come to mind. Is the eye banding an adaptation to a crepuscular lifestyle or flying in a dimly-lit environment? Does the banding somehow enhance the vision or cryptic appearance of butterflies that fly in these environments? With these and other questions in mind I began to search the literature.

Insect eye color or pigmentation has been the domain of biophysicists such as Prof. Doekele Stavenga of the Netherlands who has published an excellent review on insect eye color and patterns as related to function and color vision (Stavenga 2002). He explains that most insect eyes, including those of butterflies, contain pigment cells packed with massive amounts of black pigment granules. These light-absorbing granules block out light from oblique and off-axial directions (stray light) ensuring that photoreceptors in the ommatidia capture light at all wavelengths from a narrow spatial direction and thereby prevent background noise. Lacking black pigment, white-eyed mutant insects have reduced contrast detection, especially in bright light (Stavenga 1989).

Black pigment accounts for the entirely black eyes seen in most swallowtail butterflies (Papilionidae). However many butterflies other than swallowtails have a layer of light-colored pigment close to the surface of the eye, overlying and thus obscuring most or some of the black pigment beneath. For example, the members of the family *Pieridae* often have white or yellow eyes matching and thus blending with the white or yellow wing and body color, suggesting that the eye color functions as part of an overall display of color. The white or yellow eye pigment overlays black pigment; however, some black spots (pseudopupils) may reveal the underlying black pigment. Moreover, the pseudopupils often match black areas on the butterfly's body or wing, suggesting they also have a display function (Stavenga 1979; D'Abera 1981, photo pp. 80).

In banded eyed butterflies the banding may have a similar function. In satyrines the light-colored bands are due to a layer of distal pigmentation that overlays the proximal black pigment (Fig. 2). The dark bands are simply areas where the underlying black pigmentation is exposed (Yagi & Koyama 1963). As in the pierids the light-colored pigment insures that the eye color matches the surrounding body parts and the exposed black pigment presents a black banded pattern and blocks stray light. Many satyrines are palatable to predators, cryptic, crepuscular and fly in forest clearings or along the forest edge. To avoid detection they may fly rapidly and erratically through dense vegetation and suddenly drop down and fold their wings displaying cryptic body parts. In other palatable nymphalids rapid and irregular flight has been correlated with successful escape from avian predators (Chai & Srygley 1990).

In owl-butterflies, with their wings closed, the color of the eye bands and the alternate light and dark pattern

continued on next page...

generally matches the surrounding color and pattern of the butterfly's body and ventral wing surfaces (Fig. 3, front cover). I suggest that the banded pattern, including the banded eyes, is a kind of disruptive camouflage (as are the stripes of a tiger or an okapi) making it difficult for a predator to distinguish the form of the eye or other body parts.

Predators may be startled by or direct their attacks toward eyespot (ocellus) markings on lepidopteran wings (Poulton 1890, Swynnerton 1926, Blest 1957, Robbins 1980 & 1981). With their wings closed brassolines and satyrines generally appear to be cryptic except for ocelli located away from the head and other vital body parts. Whether the function of the ocelli is to direct the attack of a predator or to deter an attack, obscuring the true eye and adjacent areas may enhance the effectiveness of this deception. Certainly the display, such as the size and number of the ocelli and the color and pattern of cryptic surfaces, would be expected to vary with the species of butterfly and its predators. For example if you cover all of the picture of the owl-butterfly (front cover) except the end of the forewing, the exposed portion suggests the head of a lizard or a snake, both common predators in the butterfly's tropical habitat.

Some predators may be startled while others may be attracted to a lizard or a snake and attack the "eye." Again, obscuring certain parts of the butterfly, including the compound eye, may enhance the deception and at the same time protect vital body parts. Since brassolines and satyrines, the larvae of which feed on monocots, are generally palatable to predators, unsuccessful attempts at predation as a result of misdirected (by the ocelli) or aborted attacks may prevent subsequent attacks by not rewarding the predator with success.

The banded eyes of ithomiines often match the color and pattern of adjacent body parts. For example the alternate grey and black eye bands of *Greta morgane oto* (see Reese 2004 for photo) are also seen on the thorax including the legs suggesting that this disruptive patterning may make it difficult for a predator to distinguish the head and thorax of the butterfly. Ithomiines lack ocelli but many species have translucent, transparent or tiger-striped wings. The glassy wings make them difficult to see when flying in a dimly-lit forest and the tiger stripes may provide disruptive camouflage; both wing types may thereby thwart a predator's attack.

Moreover many ithomiines are unpalatable, protected by pyrrolizidine alkaloids (hereafter PAs) obtained in most species by adult male feeding at PA-containing plant sources and by females during mating (Hartman & Witte 1995 and references therein, Trigo et al. 1996). Although most ithomiine larvae feed on toxic Solanaceae host plants, these toxins are not present in the adult butterflies. Since young adults of PA-seeking ithomiines are palatable until they obtain PAs, they should benefit from cryptic colors and patterns including those resulting from eye bands and perhaps also from interspecific mimicry or automimicry. Interestingly, the Australian ithomiine *Telleryo zoilus* Fab., a black and white butterfly with almost solid pale yellow eyes, lacks eye bands and is neither tiger-striped nor glass-winged, suggesting that a banded eye pattern did not fit this species' overall display pattern. (Smart 1975, photo pp. 251).

The snout butterflies are also cryptically colored and patterned. When resting or roosting with their elongated palpi pressed against a branch, a snout butterfly may resemble a dead leaf and its palpi the leaf petiole. As in other banded eyed butterflies the color and pattern of the eye bands often extends to the ventral surfaces displayed when the wings are dorsally appressed. The ventral surface is often darkly mottled in a manner that resembles the broken dark eye bands of the snouts' compound eye.

In summary, the banded compound eye color and/or pattern had by libytheines, brassolines, satyrines and ithomiines has a display function, generally a part of the overall cryptic appearance of nearby body parts exposed when the wings are closed. Members of these subfamilies are generally palatable during all or a part of their adult life and many, except for the libytheines and some satyrines, fly at times or in places with low levels of illumination. Satyrines, and brassolines often combine a display of cryptic areas, disguising the eye and other body parts, with predator-attracting or repelling ocelli located on the wings away from the vital body parts. In many ithomiines and brassolines the banded-eye color and pattern may also be found on the thorax. In addition, the glass or tiger-striped wings add another dimension to the cryptic appearance of these butterflies. The overall display of banded eyed butterflies suggests that the bands and color may make it difficult for a predator to discern the disting-uishing characteristics of vital body parts.

The region of the eye beneath the light-colored pigment may receive filtered light, however, there is no evidence that these pigments affect a butterfly's vision. This topic, as well as the function of eye color and pattern in display, is in need of further investigation.

Acknowledgements

I thank Robert K. Robbins and Doekele G. Stavenga for their encouragement and helpful suggestions upon reading the manuscript.

Literature Cited

Blest, A. D. 1957. The function of eyespot patterns in the Lepidoptera. Behaviour 11:209-256.

Chai, P. & R. Srygley.1990 – Predation and the flight, morphology, and temperature of neotropical rainforest butterflies. The Am. Nat. 135:748-765.

D'Abrera, B. 1981. Butterflies of the Neotropical Region Volume 3, Part 1 Papilionidae & Pieridae, Landsdowne Editions, East Melbourne.

Gilbert, L. & P. Ehrlich, 1970. The affinities of Ithominae and the Satryinae (Nymphalidae). J. Lepid. Soc.24: 297-300.

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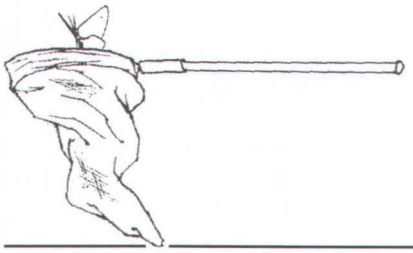

Mailbag...

Dear Editor,

A couple of comments on the Spring **News**. In the article on *Temenis laothoe*, R. G. De la Maza's name is cited as "Maza." It's De la Maza. We don't cite Phil DeVries as "Vries," do we? On page 7, this: "Unlike the majority of the Saturniidae, Citheroniinae larva buries themselves in the ground." Do they really talk like that in OK? Perhaps it's time to put disclaimer stickers on grammar texts. On page 19, lines 6 and 7: "will be comprised of scheduled events to peak the interest of all parties." Guess it's all downhill after that?

Your comments on ATL hit the nail on the head. I too joined because of the T in ATL. What really bugs me is that *arrears* nonsense. If I bail out for a year or two and then join back up, I sure wouldn't pay dues for when I wasn't getting the journal. Oh, yeah, I'm not getting it even though I *was* paying dues. Oh well, I'm not renewing either. I hope there's a copy in the UCLA Library or at the LACNHM. Grrr!

Now, why did I *really* write? Well, I saw that you are soon to be ex-editor and I expect you are happy about that! The **News** is in great shape for Dale Clark, and if he just maintains that, we'll be in great shape.

PS: In case you're planning to return home, according to my mole in Kitchener, Ontario, they don't have summer in Canada, between winters they have road repair.

Rudy de Mordaigle

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Lancaster, CA 93539

Dear Editor,

I read with interest your, "From the Editor's Desk," **News** Volume 47(2), about, "The Birth of Butterflying." Without doubt, Dr. Glassberg has contributed a huge amount of energy and work to watching butterflies. We are fortunate to have his publications, and NABA is a good organization that serves many people well. Unfortunately, his perception of his contribution is somewhat inflated. Additionally, his public behavior towards anyone who does not agree with his ideas is not very nice. I have personally experienced such behavior, seemingly without cause.

Your strong question at the end of your editorial stated, "Why can't we all just get along?" Indeed. Why not? For me, I could "get along" a lot more easily if I were not handed summary judgments about the motivations for my collecting. I found the tenor of your editorial comments demeaning and discounting. Who are you to judge what is "valid" scientific collecting? I can read the well-thought out and balanced approach in the Lepidopterist's Society, "Statement on Collecting." It says it all, and nicely.

I found your comments on recreational collecting disturbing. In one or two sentences, you have discounted the (thousands of) young kids who marvel at butterflies and moths, and all the rest of us amateurs who just want to do the thing that provides us pleasure. We are all not studied academics—we drive trucks, deliver your mail, work in offices, and are students. And please, do not lecture me on depleting the populations from collecting. With the exception of a small handful of endangered species, this is hogwash. I do know the reproductive capacity of Lepidoptera, and there are more killed by cars in one year than all of us recreational collectors could catch in a thousand years of continuously swinging our nets!

Why can't we all get along? Because we are unfairly judged for our collecting, and handed rules by NABA and others that are basically arrogant and mean. What ever happened to empowerment, accepting and celebrating diversity, and welcoming everyone in the group? Your editorial did not display these attributes, far from it. So for now, I don't see how I can, "get along," at all.

Sincerely,

Michael D. Van Buskirk

San Antonio, Texas
mvanbusk@earthlink.net

Announcement...

Color Covers for Journal

The Journal of the Lepidopterists' Society will now be published with color covers. The editor (currently Mike Toliver, miketol@eureka.edu) seeks spectacular color photos for cover illustrations. Please submit high quality digital (or digitized) photos (1600 x 1200 pixels or higher) on CD in TIF (*.tif, preferably) or PSD (*.psd) format to: Mike Toliver, Professor of Biology, Editor, Journal of the Lepidopterists' Society, Eureka College, Eureka, IL 61530 USA. Color covers begin with the fall issue, so submit soon! Photographers will be credited on the inside front cover.

Eyes...*continued from pp. 82*

Glassbert, J. 2002. Butterflies of North America. Michael Friedman Publishing Group, Inc.

Hartman, T. & L. Witte. 1995. Chemistry, biology and chemoecology of the pyrrolizidine alkaloids, pp. 155-223. *In* Pelletier, S.W. (ed.), Alkaloids: Chemical and biological perspectives 9. Pergamon Press, Oxford.

Opler, P. A. & G. O. Krisek. 1984. Butterflies East of the Great Plains: An Illustrated Natural History. The Johns Hopkins University Press, Baltimore.

Poulton, E. B. 1890. The Colours of Animals. The International Scientific Series, Vol. 67. Appleton, New York.

Reese, M. 2004. Hot seens. *In* American Butterflies 12:44-47.

Robbins, R. K. 1980. The lycaenid "false head" hypothesis: historical reviews and quantitative analysis. J. Lepid. Soc. 34:194-208.

Robbins, R. K. 1981. The "false head" hypothesis: predation and wing pattern variation of lycaenid butterflies. American Naturalist 118:770-775.

Smart 1975. The International Butterfly Book. T.Y.Crowell Co., New York.

Stavenga, D. G. 1979. Pseudopupils of compound eyes, pp. 357-439. *In* Autrum, H. (ed.), Handbook of Sensory Physiology, vol. VII/6A. Springer, Berlin, Heidelberg, New York.

Stavenga, D. G. 1989. Pigments in compound eyes, pp. 152-172. *In* Stavenga,_D.G.& Hardie, R.C., (eds.), Facets of Vision. Springer-Verlag, Berlin, Heidelberg.

Stavenga, D. G. 2002. Colour in the eyes of insects. J.Comp. Physiol. A 188:337-348.

Swynnerton, C. F. M. 1926. An investigation into the defences of butterflies of the genus *Charaxes*. Proc. 3d. Int. Entomol. Cong. (Zurich) 2:478-506.

Trigo, J. R., K. S. Brown Jr., L. Witte, T. Hartmann, L. Earnst, L. Euclides, & S. Barata. 1996. Pyrrolizidine alkaloids: different acquisition patterns in Apocynaceae and Solanaceae feeding ithomiine butterflies (Lepidoptera:Nymphalidae). Biol. J. Linn. Soc. 58:99-123.

Vesco, J. P. & P. Starosta. 2001. Butterflies. Viking Studio, New York.

Yagi, N. & N. Koyama. 1963. The Compound Eye of Lepidoptera. Shinkyo Press, Tokyo.

Note Added in Proof:

Since sending the above report to the ***News****, four taxa within the subfamily Danainae, including the Monarch butterfly, were reported to have banded eyes (Glassburg, J. 2005. American Butterflies 13(2):34-45). In these taxa the bands and intervening stripes are dark causing the eye to appear black when seen at a distance. (See Emmel, T.C. & B. Kenney. 1997. Florida's Fabulous Butterflies. World Publications, pg. 49 for excellent photos.)*

The dark eyes of the Monarch, and its congeners the Queen and the Soldier, appear to be a part of an overall wing and body display of black area with white dots. As in other banded-eyed butterflies, the color of the eye bands matches the color of other body parts. However, the banded pattern itself is obscure, suggesting that the banding is not a part of the intended display. Unlike many other banded-eyed butterflies, danaines generally lack cryptic patterns of bands and striations.

The danaines are unpalatable and display vivid colors and bold patterns that advertize their distastefulness. The Monarch and its cogeners appear to achieve, at least in part, the desired aposematic display by obscuring the eye band pattern while taxa in other subfamilies of banded-eyed nymphalids use the eye bands to contribute to their cryptic appearance.

However, this begs the question. If danaines have obscured eye bands why do they have these bands at all—do the bands have some function in addition to display?

Life History of *Citheronia volcan* Lemaire 1982 (Saturniidae, Ceratocampinae)

Miguel E. Chumpitasi

P. O. Box 1105-2150, Moravia, San Jose, Costa Rica, **echumpi@racsa.co.cr**

Place

Refugio Cerro Dantas on Quebrada Grande river, 2 km NE Cerro Chompipe (in the vicinity of Braulio Carrillo National Park), Heredia, Costa Rica; altitude 1920 m (6300 ft).

Sequential events

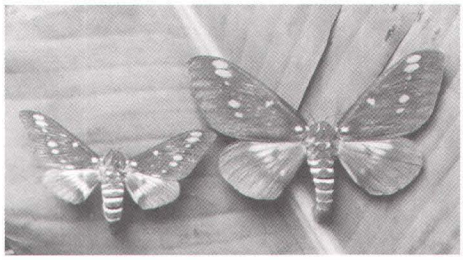
Dec. 12, 2004: single last instar larvae found in leaves of hostplant *Microtropis occidentalis* (fam. Celastraceae) a 2.5 m (8 ft) treelet which was very close to *Conostegia sp.* (fam. Melastomataceae) a 3 m (10 ft) high treelet which proved to be an alternate hostplant to the larvae. See photo on pp 77.

Larva approx. 10 cm (4") long, 1.2 cm (½") diameter, brown with a discontinuous light green lateral line on both sides. Also a small ovoid dark spot in each segment. Pairs of dark short horns in first 3 segments, small dark head. Two dorsal rows of short spines per segment.

Dec. 17: moves away from hostplants. Dec. 18: starts darkening. Dec. 19: goes below the soil. Dec. 21: rests on top of small depression formed by the larvae. Reacts when molested. Dec. 26: still showing larvae form but dark orange color now. Dec. 27: Pupae. 4.2 cm (1.7"), dark amber color. No cocoon seen.

June 24, 2005: after 6 months hibernation, adult emerges. Defective but good enough for ID. Emerged after we started to spray water for some days.

On April 2, 2005 two males (wingspan 9.8 cm, 3.9", left below) and one female (13.5 cm, 5.3", right below) were collected, in excellent condition, in the same area. Possibly siblings of the reared larva. No *Citheronia* were collected on subsequent nights. The female produced, unfortunately, infertile eggs.



continued on ppp. 87

Metamorphosis...

The Society has learned of the deaths of the following members. Our condolences to their families...

John C. Downey, Ph.D.

Dr. Downey was a Charter Member of the Society (1947), and was an active member through 1990. He served as the Society's Secretary from 1963 through 1971, was a member of the nominating committee in 1973, and served as Vice President 1984-1985.

Ronald Richard Gatrelle

Goose Creek, SC, on 14 August 2005. Pastor Gatrelle, born in Marshalltown, Iowa on 27 January 1946, was co-founder and president of The International Lepidoptera Survey (TILS) and editor and frequent contributor to *The Taxonomic Report*. He had been a member of The Lepidopterists' Society from 1967 until his sudden death shortly after attending the Society's annual meeting in Arizona. He is survived by his wife Marilyn Riggins Gatrelle, one son, two daughters, and two grandchildren. [from obituary published in Charleston (SC) Post & Courier, 15 August 2005, submitted by John Calhoun]

Lawrence (Larry) J. Kopp

of Klingerstown, Pennsylvania, on 1 May 2005, at the age of 83. Born 6 January 1922, Larry was a silk moth rearer for over 40 years. He was well known to many prominent Saturniidae researchers, rearers, and collectors worldwide. He, along with his sister Faye, reared from 20,000 to 30,000 silk moth cocoons annually. These were sold to over 30 different universities throughout the United States, Canada, and Europe, as well as to various biological supply houses and private collectors.

Larry discovered, isolated, and propagated for many years a genetic aberration known as the *Automeris io* "Broken Eye." He became affiliated with Dr. Thomas Manley, Bloomsburg University, who researched the genetics of the aberration from 1966 to 1986. During this association Larry also spread and pin-mounted many thousands of butterflies for the Peabody Museum of Natural History at Yale University. He reared, collected, and traded butterflies and moths from 1950 to 1990, accumulating a collection of approx. 30,000 worldwide specimens.

Larry, a charter member of the Pennsylvania Outdoor Writers Association, was a freelance nature writer for the Pennsylvania Game News and was published in over 80 magazines. He was also an accomplished photographer who identified and photographed over 300 wildflowers and plants growing in the Mahantongo Valley in which he lived. In 2003 he was honored with a life membership in the Yale Peabody Museum of Natural History. Larry was a charter member and former Secretary Treasurer of the Fur Trappers Association and an honorary life member of the Pennsylvania Trappers Hall of Fame. He was a life member of the American Civil Liberties Union; member of the National Geographic Society, and the Nature Conservancy. Larry had been a member of The Lepidopterists' Society from 1961 through 2004. [submitted by John D. Laskowski, ***john.laskowski@moth man .org***]

C. Don MacNeill, Ph.D.

at his home in Oakland, California, on 28 July 2005. Charles Donald MacNeill was born on 3 December 1924 in San Francisco, California. He received his Ph.D. at the University of California, Berkeley, and was a widely-recognized authority on the biology and taxonomy of skippers (Hesperiidae), perhaps best known for his monographic work on North American *Hesperia*. He began his professional career at the California Academy of Sciences in San Francisco, later becoming a long-time senior curator in the Natural Science Division of the Oakland (California) Museum. At the Oakland Museum he was instrumental in designing striking ecological exhibits demonstrating the complex diversity of California life zones. After retiring he continued taxonomic work on skippers as a research associate and honorary fellow at the California Academy of Sciences.

Dr. MacNeill had been a member of the Society since 1963; he was a member-at-large of the Executive Council 1966-1969, and was chair of the nominating committee in 1969. Memorial contributions may be made to OMCF/ MacNeill Fund, Natural Science Dept., Oakland Museum, 1000 Oak St., Oakland, CA 94607, or to an environmental cause of your choice.

THE LEPIDOPTERISTS' SOCIETY
EST. 1947
www.lepsoc.org

Call for Season Summary Records

Jim Tuttle, Season Summary Editor

It is once again the time of year to start preparing your submissions for the annual Season Summary report. The annual report is sent as a hardcopy to members each year, and each year's data is also incorporated into the online database. Take the time to access the Season Summary database through The Lepidopterists' Society home page (***www.lepsoc.org***) and conduct a few searches. The value of the online database increases as your data gets added each year. Please take the time to consider your field season and report range extensions, seasonal flight shifts, and life history observations to the appropriate Zone Coordinator. Zone Coordinators, their contact information, and the scope of their zone appears on the inside back cover of every issue of the **News**.

There are a number of factors that make it necessary for the Zone Coordinators to meet a reporting deadline each year. As a result, you should have your data to the Zone Coordinator(s) no later than December 15, 2004. In most of our Nearctic zones, you have long since put away your cameras, nets, bait traps, and/or lighting equipment by that time anyway.

Important reminder to contributors using MAC computers to submit Season Summary records

PC operating systems save dates based upon a 1900 format, whereas MAC operating systems save dates based upon a 1904 *default* format. The Lepidopterists' Society master database is maintained in PC format. As a result, if you submit your season summary records on an Excel spreadsheet generated on a MAC to a Zone Coordinator who operates a PC system, without first disabling the default date setting, the dates will be off by 4 years and 1 day. If you submit your season summary records on an Excel spreadsheet generated on a MAC to a Zone Coordinator who operates a MAC system, without first disabling the default date setting, the dates will appear proper to the Zone Coordinator but the dates will be off by 4 years and 1 day when they are incorporated into the master data base. In some cases, MAC system dates sent to a Zone Coordinator operating a MAC system are off 8 years and 2 days (we haven't figured that one out). The following are instructions so that this problem will never rear its ugly head again.

Instructions

When a MAC user sits down to enter the very first record of the season, he/she must create a ***new*** Excel file. **Before typing in any data,** go to "Tools", then "Options" or "Preferences" depending upon your version of Excel, "Calculations", and ***uncheck*** the 1904 box. Once the data is entered, save this file, and close. If supplemental data is entered directly into this file by keypunching it in, there will not be any problems. However, ***do not paste in MAC data from another file*** into your file without first ensuring that the 1904 box was *unchecked* in their file **prior** to entering any of data. Unfortunately, once data has been entered in a file, it does **not** do any good to retroactively *uncheck* the date box!!!

By following these few steps, it is a simple matter to accommodate MAC records. However, you, as the original contributor, must ensure that those steps are taken. Improperly dated records will be rejected and your important records will not get into the database.

First Announcement...

2006 Annual Meeting, June 14-18, 2006 McGuire Center, Gainesville, FL

The 2006 Annual Meeting of the Lepidopterists' Society will be held 14-18 June, 2006 at the McGuire Center for Lepidoptera and Biodiversity and the Hilton Convention Center on the campus of the University of Florida in Gainesville. Due to the extraordinary interest in the new McGuire Center and the expanded facilities for collectors, watchers, photographers, and gardeners, the meeting will be one day longer than usual.

A number of special events will be scheduled throughout the meetings for all of those interested in any aspect of the study and appreciation of Lepidoptera. There will be an educational workshop on June 13th, field trips and a welcome reception on June 14th, with the formal presentations June 15-18. The traditional barbecue with a southern flare is scheduled for the evening of June 16th, the banquet on the evening of the 17th, and the business meeting on Sunday morning, June 18th. Other post meeting field trips, including at least one international trip to Madagascar, are planned.

Please check the Society website for further details, and registration forms and other information will be available on the website and in a following issue of the **News**. For questions concerning the preliminary program and local arrangements, please contact Jackie Miller (***jmiller@flmnh.ufl.edu***).

Membership Update...

Julian Donahue

This update includes all changes received by 27 August 2005.

"Lost" Member

(publications returned)

Sanchez-Conde, Antonio (Toledo, Spain): deceased??

Minor changes/corrections to 2004 Membership Directory

Enz, John: change street number from "2" to "14"

New and Reinstated Members

members who have joined/renewed/been found/or rescinded their request to be omitted since publication of the 2004 Membership Directory (not included in the 2004 Membership Directory; all in U.S.A. unless noted otherwise)

Austin, Christine: [address omitted by request]

Brockman, Nathan: Butterfly Wing Curator, Reiman Gardens, 1407 Elwood Drive, Ames, IA 50011-1100.

Cook, Thomas C.: P.O. Box 141, Pine Mountain, GA 31822-0141.

Danderson, Clark A.: Dept. of Plant Biology, UIUC, 265 Morrill Hall, 505 South Goodwin Avenue, Urbana, IL 61801-3750.

Durden, Christopher J. (Ph.D.): 1907 Sharon Lane, Austin, TX 78703-3031.

Friesen, Gregg: 515 East 4th Street, Newton, KS 67114-3531.

Hengeveld, James D. (Ph.D.): 6354 South Shore Drive, Unionville, IN 47468-9527.

Hubbell, Peter: 6200 North Via Ranchero, Tucson, AZ 85704-2838.

Jamieson, David F.: 45 Arthur Way, Murphy, NC 28906-3950.

Levinson, Sal: 2441 Russell Street, Berkeley, CA 94705-2019.

López Robio, Andrés: Cra 60A 44 B-100, Apto 202, Medellín, Antioquia, **Colombia.**

McGee, Bobbie: 13101 Lake View Drive, Springfield, NE 68059-5133.

Punzo, Fred (Ph.D.): Department of Biology, Box 5F, University of Tampa, 401 West Kennedy Blvd., Tampa, FL 33606-1490.

Riutta, John E.: P.O. Box A, Scappoose, OR 97056-0615.

Ryan, Rachael: Department of Biology, New Mexico State University, MSC 4570, P.O. Box 30001, Las Cruces, NM 88003-8001.

Sánchez, Carlos Eduardo Giraldo" Cra 80 #53-15, Medellín, Antioquia, **Colombia.**

Smedley, Scott R. (Ph.D.): Department of Biology, Trinity College, 300 Summit Street, Hartford, CT 06106-3186.

Turner, Henry: [address omitted by request]

Unger, Fred E.: 1503 Birch Court, Bel Air, MD 21014-1903.

Address Changes

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

Banks, John: 28 Patshull Road, London NW5 2JY, **England.**

Beck, John R., Jr.: P.O. Box 301, Chester, IL 62233-0301.

Bolton, Stanwood K., Jr.: 57 Mott Lane, Brookhaven, NY 11719-9613.

Buche, Michael: Correo Central, Tingo Maria, **Peru.**

Burkhart, Charles: 550 East 12th Avenue, Apt. 1403, Denver, CO 80203-2528.

Crolla, Jeffrey P.: 413 Jones Avenue, Toronto, Ontario M4J 3G5, **Canada.**

Fuller, Edward R. (Dr.): P.O. Box 740, 151 St. Lawrence Street East, Madoc, Ontario K0K 2K0, **Canada.**

Gallusser, Stephanie (Ph.D.) [corrected address]: Calle La Merced s/n Cdra. 1, Sector Punta del Este, Tarapoto, **Peru.**

Glaser, John D. (Dr.): 116 Hickory Hollow Road, Berkeley Springs, WV 25411.

Goldstein, Paul Z. (Ph.D.): McGuire Center for Lepidoptera Research, University of Florida, P.O. Box 112710, Gainesville, FL 32611-2710.

Gonzalez, Jorge M. (Ph.D.): Department of Entomology, Texas A & M University, College Station, TX 77843-2475.

Harris, Brian P.: 2809 South Woodrow Street, Apt. E, Arlington, VA 22206-3323.

Hossler, Eric: 23 Maple Street, Danville, PA 17821-1311.

Komperda, Edward J., III: 111 Crestmont Road, Greene, NY 13778-2128.

Metzler, Eric H.: P.O. Box 45, Alamogordo, NM 88311-0045.

Sacksteder, Ruth M.: 2033 Berryman Street (lower level), Berkeley, CA 94709-1957.

Thompson, Paul M.: 2 Glen Hollow Lane, West Simsbury, CT 06092-2608.

Turner, Jon D. (M.D.): 2338 Bryson Road, Ardmore, TN 38449-5229.

Citheronia...*continued from pp. 84*

Comments:

Citheronia volcan is a Saturnid of high altitude. The INBio web site shows 10 specimens (one female only) all collected between 1400 and 2100 m most of them in the Braulio Carrillo National Park.

The extensive Costa Rica web site of D. Janzen shows larvae pictures for 3 (*C. bellavista*, *C. collaris* and *C. lobesis*) out of 4 *Citheronia*. No picture for *C. volcan* so this might be the first photo of *C. volcan* larvae (pp. 77).

Acknowlegments

Mr. Warren Calvo, owner of Refugio Cerro Dantas. Mr. Pablo Sánchez, Universidad Nacional botanist.

The Marketplace

***IMPORTANT NOTICE TO ADVERTISERS:* If the number following your advertisement is "471" then *you must renew your advertisement* before the next issue! Remember that all revisions are required in writing.**

Books/Videos

Now available direct from the author: Charlie Covell's **Field Guide to Moths of Eastern North America**. Slightly revised (improved black and white plates; introductory updating chapter added). Republished 2005 by Virginia Museum of Natural History. $40.00 postpaid (media mail) in North America. Contact Charlie at: 207 NE 9th Ave., Gainesville, FL 32601-4378. (352) 846-2000, ext. 251, covell@louisville.edu 473

For Sale: Field Guide of Cuban-West Indies Butterflies by L. R: Hernández, 2004. 389 pages. + 31 color plates. Line drawings, maps, checklist. Softcover. $59. Butterflies of Iran by V. Nazari. 2003. 564 pages incl. 74 color plates. Maps. Text figs. Text in Farsi. Scientific names for all species. Hardback. $145. Butterflies of West Africa by T. B. Larsen. Publication Oct. 2005. Approx. 900 pages incl. 130 color plates depicting 3905 specimens of nearly 1500 species. 2 hardback volumes. $225. Color brochure available. Prices are excl. postage. Peder Skou, Kirkeby Sand 19, DK-5771 Stenstrup, Denmark, *apollobooks@vip.cybercity.dk* 472

Livestock

For Sale: Cocoons/ova of *Hyalophora cecropia*. Send SASE to Alan M. Vosefski, 3320 Old Kirkwood Dr., Virginia Beach, VA 23452. Enquiries may be made to 757-498-3168 or avosefski@yahoo.com. 473

For Sale (USA only): Cocoons/ova of *Antheraea polyphemus*, *Callosamia promethea* and *Hyalophora cecropia*. Send SASE to Karl Ploran, 110 Route 20, Chester, MA 01011-9642, or call 413-354-7852 any evening, 6-9 pm, Eastern Time. 473

Eggs/Cocoons of northeastern North American Saturniidae, available at various times. *Actias luna*, *Automeris io*, *Antheraea polyphemus*, *Callosamia angulifera*, *Callosamia promethea*, *Citheronia regalis*, *Hyalophora cecropia*, *Hyalophora columbia*, *Samia cynthia* and various butterflies and Sphingidae. Bill Oehlke, Box 476, Mointague, PEI, C0A 1R0, Canada, (902) 835-3455, ***oehlkew@islandtelecom.com*** 471

Specimens

Collection for Sale. About 146,000 butterflies, mostly North American, (about 38,000 mounted, 108,000 papered, including 1000+ paratypes), plus 2864 alcohol vials of immatures, 9000 slides, 414 drawers, 77 cabinets, 2000 pressed plants, etc. Offers wanted. Foreigners welcome. A three-way arrangement would work (rich patron buys collection for wholesale price and donates to museum for tax deduction).

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 resolved 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.

James Scott, 60 Estes St., Lakewood, Colorado 80226-1254. 471

Wanted: A-1 papered *Nymphalis antiopa* f. *hygiaea*, *Vanessa cardui* f. *elymi*, *Euphydryas rubicunda* f. *foxi*, and any other semi-melanic "abberrants" of Lepidoptera. Unusual *Papilio* also wanted, esp. "smeary" types, mosaics, etc. Fred Bower, 288 Willow St., Spt. 53, Lockport, NY 14094. 471

Rich variety of Nymphalidae, Papilionidae from Africa available. List on request. Wanted: *Prepona* from South America. Giancarlo Veronese, Viale Venezia 138, 33100 Udine (Italia). ***gc.veronese@virgilio.it***, FAX: ++39-0432-343654. 471

For Sale or Exchange: Rare Chinese swallowtails such as *Papilio syfanius*, *P. krishna*, *Bhutanitis* sp. List on request. Pan Zhimin, 2-603 Dong Xia Zincun, Quanzhou Fujian, 362000 China, ***Coin_flyin@sina.com***. 471

Equipment

Lepidoptera books and supplies (nets, spreading boards, envelopes, Cal Academy unit trays, pins, etc.). Send SASE to Dr. Eugene J. Gerberg, 5819 NW 57th Way, Gainesville, FL 23653 or email request for list to ***genejg2@aol.com*** 472

Light Traps, 12 volt DC or 110 volt AC with 18 inch length (15 & 25 Watt) and 24 inch length (20 & 40 Watt). All with 365 Quantum black light bulbs. Also available with ballast enclosed in weather tight cast aluminum enclosure and flourescent bulbs in clear shatter proof tube. Rigid vane assembly of stainless steel, aluminum or plexiglass. Portable, easy to use, with rain drains and beetle screens to protect specimens. For info contact; Leroy C. Koehn, 202 Redding Road, Georgetown, KY 40324-2622; Tel: 502-570-9123; ***Leptraps@aol.com*** 471

Bait Traps, 15" Diameter, 36" tall collapsible traps with cloth top and plastic coated nylon screen and supported with 3/16 steel rings. A plywood platform is suspended with eye bolts and S-hooks. The bait container is held in place by a retainer. Three types are available: Flat Bottom, Invert funnel and Tropical. For info contact; Leroy C. Koehn, 202 Redding Road, Georgetown, KY 40324-2622; Tel: 502-570-9123; ***Leptraps@aol.com*** 471

Help Offered

Wish to collect legally in Costa Rica? I can help you obtain your Official Collecting Permit for the time of your stay. You would be allowed to collect anywhere (except National Parks). In Costa Rica you may collect species, in addition to residents, coming from the north (Mexico) and the south (South America). Moth collectors: we can rent you a portable generator. Eduardo Chumpitasi P.O.Box 1106-2150 Moravia, San Jose, Costa Rica or phone (506) 268-2768, ***echumpi@racsa.co.cr*** 471

Research Notices

I am looking for papered specimens with complete collection data for the following species of *Precis* and *Junonia* for an undergraduate project studying the species relationships and color pattern evolution in these genera: *ceryne*, *cuama*, *antilope*, *pelarga*, *rauana*, *tugela*, *milonia*, *coelestina*, *archesia*, *limnoria*, *genoveva*, *evarete* (from localities other than Florida), *nigrosuffusa*, *hadrope*, *artaxia*, *sophia*, *chorimene*, *adulatrix*, *intermedia*, *touhilimasa*, *vestina*, *ansorgei*, *cymodoce* and *goudoti*. Specimens need not be A1 perfect, and we do have some funds available to pay for specimens and shipping. Please contact: Jeffrey Marcus, Department of Biology, Western Kentucky University, Bowling Green KY 42101, USA. (270) 745-2043, jeffrey.marcus@wku.edu 472

continued on pp. 91

From the Editor's Desk

Phil Schappert

It seems I touched a few nerves and cut close to the bone with my op ed (editorial opinion) piece in the summer issue. I won't apologize for having an opinion (but some of you should for the nasty things that have been said about my parentage). I guess it does hurt most when it cuts close to the bone...or, with apologies to Bill Shakespeare, "methinks they doth protest too much."

Anyone who follows the Society's "Statement on Collecting Lepidoptera" should have no argument with my opinion since, by definition, they are not "recreational collectors." I suggest you read the *Guidelines, Purposes of Collecting* section, again (and again, and again, if necessary). If you're not collecting for one of these 7 purposes then you, my friend, are a recreational collector (and oughta be ashamed of yourself). 'nuff said.

A few final notes. Evi Buckner-Opler asks me to let all members know that the group photo, thanks to the efforts of Albert Thurman, will appear in the Winter issue of the **News**.

You may note with this issue that, along with the mid-volume change in the slate of officers (coinciding with the Annual Meeting), I've changed the **News** Editor, officially, to Dale Clark. This means that from here on you should *submit all future items to him, not to me*. Dale will do the layout work for the Winter issue with me watching over his shoulder but, essentially, my duties are ending with this issue.

It's customary for journalists to write a "farewell speech" or what's become known as a "30" column (30 is the old-style "end of column" instruction for the typesetter). Nine years is a long watch in journalism so it's a tradition that I will follow with a "30" piece in the winter issue. Watch for it...

I'm not going away, folks. Just fading into the general membership background, as I've longed to do for the last couple of years. It's been fun but it's also been a lot of work. In fact, I'm going to go and collect something for the biology station collection. Joy!

Phil

Announcement...

LepSoc Archives Now Housed at McGuire Center

Hello, colleagues.

Ten boxes of archival materials sent by Julian Donahue have arrived safely in Gainesville Now they await their turn in the large freezer for fumigation, just in case there was a booklouse or two hitch-hiking from the West Coast. Soon we will begin logging the contents in order to obtain proper storage in the file cabinets provided for them in our library here. I am to have some training from a lady here at the FL. Museum of Natural History who is an experienced archivist.

This is a call to former presidents, editors, treasurers, and other officers to send me any documents you may have stored away, if you think they should be archived. I hope to have everything ready for inspection at the 2006 Annual Meeting. Thanks in advance for any items you may send. Our address here is: McGuire Center for Lepidoptera and Biodiversity, P.O. Box 112710, (Hull Road at SW 34th St.), Gainesville, FL 32611-2710.

Thanks to Julian and Ron Leuschner for their hard work getting the current archive materials shipped.

Charlie Covell

Announcement...

Nominations for Karl Jordan Medal 2006

The Karl Jordan Medal is an award that may be presented biennially at the Annual Meeting. This award is given by the Society in recognition of original research of the exceptional quality in morphology, taxonomy, systematics, zoogeography and "natural history". The criteria (J. Lep. Soc., 26:207-209) emphasize that the work may be based on a single piece of research or on a series of interrelated works and must be at least three but not 25 years old. The latter is to assure that the awarded work has been used by lepidopterological community and stood the test of time. The Jordan Medal is not intended to be a career award for service rendered to the study of Lepidoptera inasmuch as the Lepidopterists' Society already has such an award, Honorary Life Member. In addition, the nominee does not have to be a member of the Society .

Formal nominations for the Karl Jordan Medal will be accepted from any member of the Lepidopterists' Society and should be sent to Dr. Lee D. Miller, McGuire Center for Lepidoptera and Biodiversity, University of Florida, P. O. Box 112710, Gainesville, FL 32611-2710 or to ***lmiller@flmnh.ufl.edu***. Please include a list of specific publications for which the candidate is nominated along with a copy of the curriculum vitae if possible.

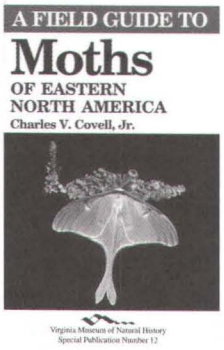
Market...*continued from pp. 89*

I have been authorized to write the section of the *Lepidopterous Catalogus*, on the Papilionidae. The most comprehensive, analytical, authoritative, detailed text and plates of the birdwings to date is a book by: Onya, Takashi; 1983. *Birdwing Butterflies*. It is **most** important that I find an English translation, either partial or complete. Am willing to pay for single pages or $200 for a complete copy. Kent H. Wilson, P.O. Box 1097; Edmond OK, USA 73083-1097; 405-341-6696. 471

Available Again...

Moth Field Guide

Charlie Covell's **Field Guide to Moths of Eastern North America**, slightly revised with an updated Introduction + improved black and white plates, is now available. It is $40 postpaid in North America,



and can be ordered by sending a check to him at 207 NE 9th Ave., Gainesville, FL 32601-4378. For more info. contact the author at: ***covell@ louisville.edu***.

Get in the Swing of Things with a Society T-Shirt!

High Quality, 100% cotton, generous length, pre-shrunk, proudly displaying a 7-inch (18cm) diameter Society logo on the front. Have you noticed that the butterfly design of the logo is a pair of mirror-imaged stylized initials ("LS") of our Society?

Available in four adult sizes (small, medium, large and extra large) in either *Papilio glaucus* yellow (with black logo) or *Melanchroia chephise* (navy) blue (with white logo) for only $10 each, plus postage ($4 for first shirt, $2 for each additional shirt within the U.S. or to Canada).

Please indicate quantity, color and size desired and send, along with your check drawn on a U.S. Bank, in U.S. funds, to:

Kelly Richers,
Treasurer, The Lepidopterists' Society
9417 Carvalho Court,
Bakersfield, CA 93311-1846
U.S.A.

Announcement...

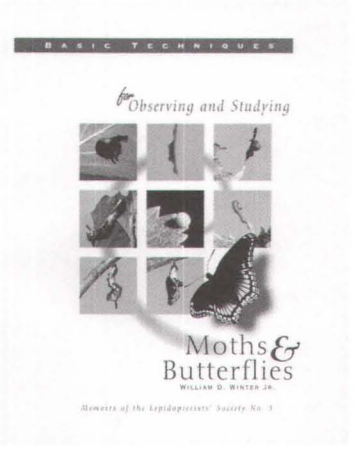
Basic Techniques for Observing and Studying Moths & Butterflies

by William D. Winter.

Lep. Soc. Memoir #5 is a 350-page book (with 82 pages of Appendices) packed with information for study of Lepidoptera. Both beginners and experienced students of Lepidoptera will find this book to be a valuable reference.

To get your copy, send check or Money Order for $29.00 (Members), $44.00 (Non-members), postpaid (Canada and Mexico add $6.00; other countries add $10.00), made payable to "The Lepidopterists' Society," to:

Ken Bliss, Publications Mgr.
28 DuPont Ave. Piscataway, NJ 08854



Conference Notice...

Ecology and Conservation of Butterflies in Europe

5-9 Dec 2005 in Leipzig, Germany

Deadline for paper/poster submissions (incl. abstracts): 15. Sept. 2005. The conference also is the final meeting and presentation of results of the project MacMan (EC funded project in FP5: ***www.macman-project.de***).

For more information and details, see ***www.ufz.de/butterfly***. Contact Josef Settele, UFZ Leipzig-Halle, ***josef.settele@ufz.de***

56th Annual Meeting Butterfly Field Trips, Sierra Vista Arizona 2005

Ranger Steven J. Mueller

Ody Brook Enterprises, 13010 Northland Dr., Cedar Springs MI. 49330-08433. USA, **Odybrook@chartermi.net**

One hundred eight butterfly species were encountered by watchers and collectors on numerous Field trips during the 56th Lepidopterists' Society Annual Meeting (Table 1).

Members of the Lep Soc and Southeast Arizona Butterfly Association (SEABA) shared interests and enthusiasm for butterflies that invigorated both organizations. The common pursuit for knowledge and interest for perpetuating butterfly activity encouraged continued collaboration and strengthened a desire to meet jointly.

Field trip data has not been segregated by locality this year. Participants recorded species encountered on a master list for Southeast Arizona. Additional species were seen just prior to the meeting but are not included in this account.

Ten leaders provided expertise with tremendous regional knowledge. Butterfly field trip leaders were Richard Bailowitz, Jim Brock, Hank and Priscilla Brodkin, Ken Davenport, Fred Heath, Paul Johnson, Doug Mullens, Paul Opler, and Robert M. Pyle. Excellent field learning experiences were complimented with friendship building among netters, photographers, and watchers.

Moth outings kept people active until the sun brightened the eastern sky (at least for some). A moth species list has not been compiled, to my knowledge. Leaders were Charlie Covell, Bruce Walsh, Standley Gorodenski, Mike and Todd Gilligan, Paul Opler, and Evi Buckner-Opler. All field trips are about making acquaintances, renewing old friendships and learning about butterflies and moths through experiential encounters.

Ornythion Swallowtail, *Papilio ornythion,* is listed pending documentation (considered by Bailowitz and Brock as hypothetical for SE Arizona).

Please provide additional species observations to the author.

Participants thank field leaders for planning and coordinating trips to meet broad interests. This meeting included a Dragonfly and Damselfly field trip lead by Doug Danforth and Bob Behrstock.

The rich Lepidoptera diversity of Southeast Arizona enriched lives, minds, and spirits of comrades from the Lep Soc and SEABA organizations. The diversity of watchers, photographers, and collectors demonstrated strength for a common interest and love.

Plan to join the experiences in Gainesville Florida 14-18, 2006.

Table 1: 56th Lep Soc / SEABA Meeting Field Trip Butterfly Sightings, 2-7 Aug 2005

Common Name	*Scientific Name*
Papilionidae	
Pipevine Swallowtail	Battus philenor
Black Swallowtail	Papilio polyxenes
Two-tailed Swallowtail	P. multicaudatus
Giant Swallowtail	P. cresphontes
Ornythion Swallowtail?	P. ornythion
Pieridae	
Chiricahua White	Neophasia terlootii
Cabbage White	Pieris rapae
Checkered White	P. protodice
Orange Sulphur	Colias eurytheme
Southern Dogface	C. cesonia
Cloudless Sulphur	Phoebis sennae
Large Orange Sulphur	P. agarithe
Lyside Sulphur	Kricogonia lyside
Mimosa Yellow	Eurema nise
Sleepy Orange	E. nicippe
Mexican Yellow	E. mexicanum
Boisduval's Yellow	E. boisduvalianum
Dainty Sulphur	Nathalis iole
Howarth's White	Ganyra howarthii
Lycaenidae	
Gray Hairstreak	Strymon melinus
Leda Hairstreak	Ministrymon leda
Juniper Hairstreak	Mitoura gryneus siva
Great Purple Hairstreak	Atlides halesus
Arizona Hairstreak	Erora quaderna
Xami Hairstreak	Callophrys xami
Spring Azure	Celastrina ladon
Acmon Blue	Plebejus acmon
Reakirt's Blue	Hemiargus isola
Ceraunus Blue	H. ceraunus
Western tailed Blue	Everes amyntula
Marine Blue	Leptodes marina
Western Pygmy-Blue	Brephidium exile
Riodinidae	
Palmer's Metalmark	Apodemia palmeri
Arizona Metalmark	Calephelis arizonensis
Fatal Metalmark	C. nemesis
Zela Metalmark	Emesis zela
Ares Metalmark	E. ares
Nymphalidae	
American Snout	Libytheana carinenta
Gulf Fritillary	Agraulis vanillae
Variegated Fritillary	Euptoieta claudia
Mexican Fritillary	E. hegesia
Bordered Patch	Chlosyne lacinia
Tiny Checkerspot	Dymasia dymas
Elada Checkerspot	Texola elada
Texan Crescent	Phyciodes texana
Pearl Crescent	P. tharos
Painted Crescent	P. picta
Mylitta Crescent	P. mylitta
Mourning Cloak	Nymphalis antiopa
American Lady	Vanessa virginiensis
Painted Lady	V. cardui
West Coast Lady	V. annebella
Red Admiral	V. atalanta
Common Buckeye	Junonia coenia
Tropical Buckeye	J. genoveva nigrosuffusa
Viceroy	Limenitis archippus
Red-spotted Purple	L. arthemis astyanax
California Sister	Adelpha bredowii
Empress Leilia	Astrocampa leilia
Hackberry Emperor	A. celtis
Nabokov's Satyr	Cyllopsis pyracmon
Canyonland Satyr	C. pertepida
Red Satyr	Megisto rubricata
Pine Satyr	Paramacera allyni
Monarch	Danaus plexippus
Queen	D. gilippus

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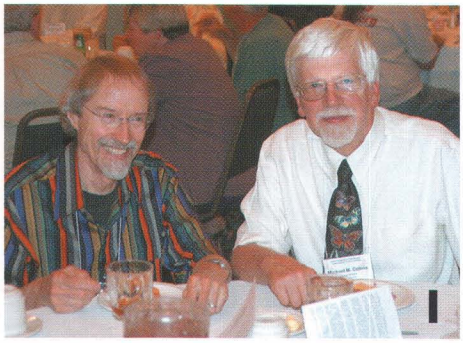
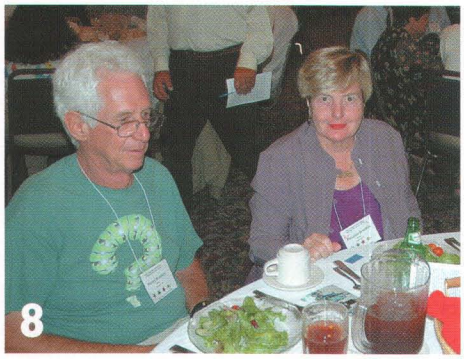
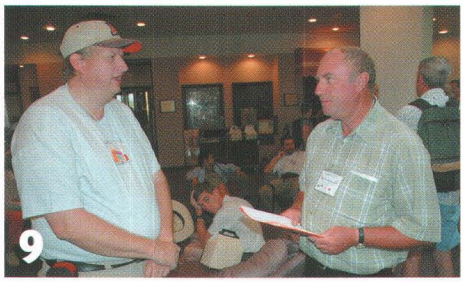
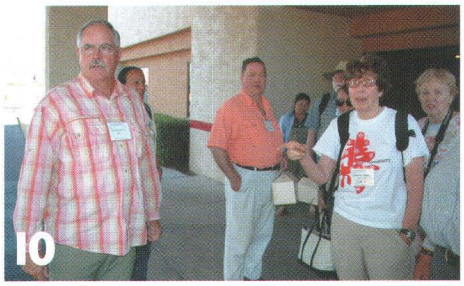
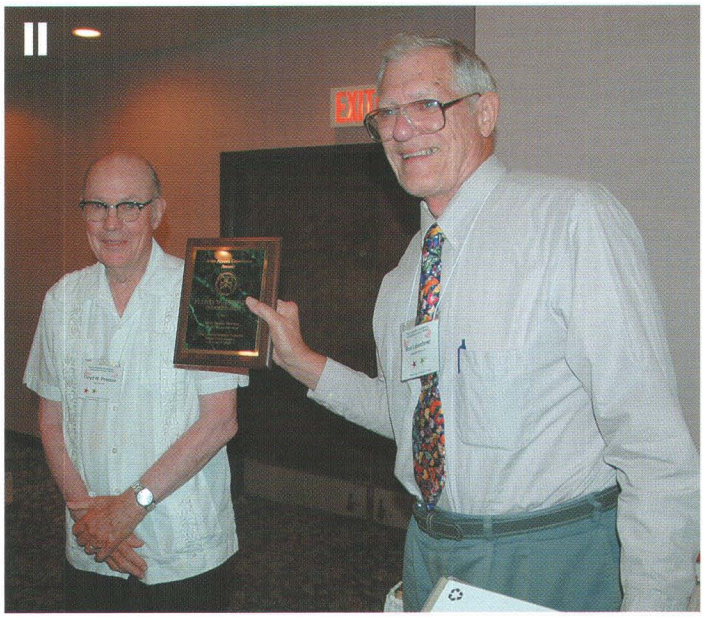










'05 Meeting Photos

1) John Burns and Michael Collins; **2)** Organizing for the Field Trips; **3)** The Brews Brothers: Bob Pyle and John Acorn; **4)** Lest we forget, Common Sootywing (*Pholisora catullus*, Hesperiidae); **5)** Evi Buckner-Opler and Paul Opler, meeting co-organizers; **6)** Tattoos (of the temporary variety, as far as we know) were all the rage: Sue Weller, Evi Buckner-Opler and BeckySimmons; **7)** The full "Tattoo Models" crowd; **8)** Hank and Priscilla Brodkin, meeting co-organizers; **9)** Doug Stout with field trip leader Ken Davenport; **10)** Field trip leader Doug Danforth with participants, including Lenore Atwood; **11)** Floyd Preston receiving the Pacific Slope Section's Comstock Award from Ron Leuschner. Photos 1, 2, 3, 5, 6 and 7 by Ernest Williams, all others by Ranger Steve Mueller.

Tom Manley Collection to Peabody Museum

Larry Gall

Entomology Division, Peabody Museum of Natural History, Yale University, New Haven, CT 06511

Over the past several years, Tom Manley has been transferring his personal collection of Lepidoptera to the Entomology Division at the Peabody Museum of Natural History. The first (and major) installment was brought to New Haven from the Manley farm in Port Treverton, Pennsylvania, in October 2002, and Tom has been shuttling more material regularly since that time. Tom's Lepidoptera collection comprises some 65,000 specimens, in more than 500 Cornell-type drawers.

The makeup of Tom's collection mirrors his lepidopteran passions and travels. His early love was *Automeris io*, and through careful breeding and backcrossing experiments, Tom worked out and published on the genetics of many hind wing eyespot patterns in this handsome saturniid. At about the time he started work with Io Moths, Tom also became interested in mass sampling to help reveal morphological patterns at the population level, and this led him and his students and colleagues all across the continent to collect in butterfly hybrid zones, isolated mountain ranges, and along altitudinal gradients.

Tom was particularly fond of Montana, and made repeated trips to document the fauna of the Judith Mountains in Fergus County. Tom also became interested in the spread of melanic morphs in Pennsylvania moths, particularly in geometrids and noctuids, and his work as well as that of Ted Sargent at the University of Massachusetts established some of the more complete long-term datasets on melanic frequencies in North American moths. More recently, Tom has been severely smitten by the *Parnassius* bug, and has criss-crossed the west to build up one of the largest and most taxonomically complete collections of this genus.

Tom's butterflies and moths have been integrated into the other holdings of the Entomology Division in the newly constructed Class of 1954 Environmental Science Center. This modern, climate-controlled collections storage and research facility, which is adjacent to the older Peabody Museum building, is also where the Peabody's Botany, Invertebrate Paleontology, Invertebrate Zoology, Paleobotany, and Vertebrate Zoology collections now live.

Post-'05 Meeting Mexico Trip

Paul Opler

P.O. Box 2227, Loveland, CO 80539

Led by Mark Pretti and Jim Brock, the group of seven participants left Sierra Vista on August 7th and spent 5 days in Sonora, Mexico. We drove straight through on Route 15 bypassing Hermosillo to Route 16. We skipped San Carlos on the way down.

Watching sites were all along Route 16 from the Rio Matape in the lowlands to the Sonora/Chihuahuan border east of Yecora. On the return we drove Route 16 to Route 15, then took Route 2 to Naco where we crossed the border.

Main site locations were Rt. 16 at the Rio Matape, Km 196, Km 261, Santa Ana, Pilares, (about 10 miles east of Yecora) and 1 mile east of the Sonora border in Chihuahua.

The group included Wanda Dameron, Kim Davis, Elaine Haldabel, Jean Morgan, Sue Perry, Mary Sheppard, and Mike Stangeland. This was a great introduction for the group to the butterflies of Sonora. Thanks much to Jim for being willing to lead the trip and to Hank Brodkin for making the initial arrangements for this great tour! The Southwestern Arizona Chapter of NABA, SEABA, co-sponsor of the August meeting, periodically arranges for butterflying trips to Sonora. Those interested in future similar trips should contact Jim Brock (***JimJoanJoy@aol.com***) for more information.

The List...

Giant Swallowtail, Pipevine Swallowtail, Two-tailed Swallowtail, Lyside Sulphur, Dainty Sulphur, Large Orange Sulphur, Cloudless Sulphur, White-angled Sulphur, Yellow-angled Sulphur, Southern Dogface, Sleepy Orange, Tailed Orange, Boisduval's Yellow, Barred Yellow, Mexican Yellow, Dina Yellow, Checkered White, Gray Hairstreak, Gray Ministreak, Clytie Ministreak, Leda Ministreak, Mallow Scrub-Hairstreak, Yojoa Scrub-Hairstreak, Creamy Stripestreak, Reakirt's Blue, Ceraunus Blue, Marine Blue, Hepburn's Metalmark, Palmer's Metalmark, Crescent Metalmark, Arizona Metalmark, Fatal Metalmark, Ares Metalmark, Poeas Metalmark, Tiny Yellowmark, Bumble Bee Yellowmark, Common Mestra, Black Checkerspot, Tiny Checkerspot, Elada Checkerspot, Hepburn's Checkerspot, Texan Crescent, Empress Leilia, Variegated Fritillary, Mexican Fritillary, West Coast Lady, Painted Lady, American Lady, Tropical Leafwing, Zebra Heliconian, Queen, Monarch, Bordered Patch, Rosita Patch, Elf, Tropical Buckeye, Reddish Satyr (Euptychia rubrofasciata)*, American Snout, Dull Firetip, Golden Banded-Skipper, White/Common Checkered-Skipper, Tropical Checkered-Skipper, White-edged Cloudywing* (Achalarus albociliatus)*, Drusius Cloudywing, Northern Cloudywing, White-patched Skipper* (Chiomara georgina)*, Funereal Duskywing, Juvenal's Duskywing, Mournful Duskywing,*

Red-Spotted Purple, *Limenitis arthemis astyanax*, in Utah.

Ranger Steven J. Mueller

Ody Brook Enterprises, 13010 Northland Dr., Cedar Springs MI. 49330-08433. USA, Odybrook@chartermi.net

The Red-spotted Purple butterfly, *Limenitis arthemis astyanax* (Fabricius 1775), (Nymphalidae) is known from eastern North American, Mexico, Texas, New Mexico, and Arizona (Brock *et al.* 2003) and (Scott 1986). In **Butterflies of the Rocky Mountain States**, Ferris *et al.* (1981) describe their distribution the same but their distribution map also indicates occurrence in Washington County, Utah although their narrative does not include Utah. On 30 July, 2004 this species was observed courting a Weidemeyer's Admiral, *L. weidemeyerii* W.H. Edwards 1861, at Big Spring in the Virgin River Narrow's at Zion National Park in Utah.

The butterfly was observed for several minutes flying among the trees at Big Spring. It approached a Weidemeyer's Admiral and appeared to unsuccessfully court it. The individual was not collected to voucher the geographic range extension. I was not in possession of a collecting permit for the national park and the butterfly was not close enough to get a suitable picture.

Utah is beyond the documented distribution range for the species. Zion National Park is in southern Utah and is likely within 100 to 150 miles of documented localities for the Red-spotted Purple. Alan Myrup (pers. comm.) from the Utah Lepidopterists' Society indicated there have been rumors of Red-spotted Purples in Utah but none have been substantiated.

This observation was in habitat is consistent with known habitat descriptions from the southwest. The riparian habitat included Salicaceae species suitable as larval hosts. The specific locality is about a three hour wading hike upstream in the narrows of the Virgin River from the Temple of Sinawava . To access the site it is necessary walk a paved trail for one mile and then wade the river for most of the three hour journey upstream. Water depth in the river varies seasonally and periodically due to snow melt and rainfall distribution. On 30 July 2004 water depth varied from a few inches to five feet. On other dates, I have entered the narrows when it was necessary to swim in a few locations.

It was not possible to get close enough to photograph the butterfly adequately for scientific documentation. The species may have a resident population in the narrows. To scientifically document the species range extension with evidence, lepidopterists hiking the narrows should attempt to acquire a collecting permit prior to hiking the narrows. A copy of this note has been submitted to Zion National Park.

Literature Cited

Brock, J. P., K. Kaufman. 2003. Butterflies of North America, Kaufman Focus Guides. Houghton Mifflin Company. pp. 210.

Ferris, C. D. & F. M. Brown. 1981. Butterflies of the Rocky Mountain States. University of Oklahoma Press. Norman, Oklahoma. 442 pp.

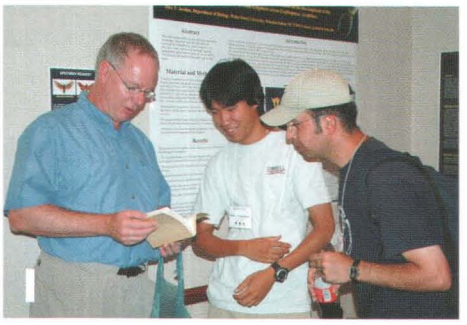
Scott, J. A., 1986. The Butterflies of North America, A Natural History and Field Guide. Stanford University Press, Stanford, California. pp. 260-261.

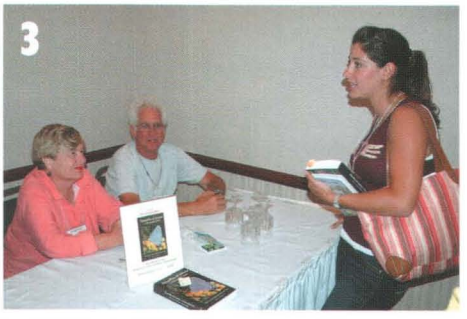
Two-barred Flasher (prob the Vitex*-feeder mainly in Sonora), White-striped Longtail, Mexican Longtail (tentative I.D. but a* Polythrix *of some kind), Dorantes Longtail, Acacia Skipper, Texas Powdered-Skipper, Golden-headed Scallopwing, Wind's Silverdrop (tentative ID), White Spurwing (*Antigonus emorsa*), Laviana White-Skipper, Erichson's White-Skipper, Many-spotted Skipperling (*Piruna aea/cingo*), Miller's Skipperling (*Piruna millerorum*), Sina Skipperling (*Piruna sina*), Hour-glass Skipperling (*Piruna panaea*), Bold Faceted-Skipper (*Synapte syraces*), Bronze Roadside Skipper, Brock's Roadside Skipper, Elissa Roadside Skipper, Orange-headed Roadside Skipper (*Amblyscirtes phylace*), Toltec Roadside Skipper, Tropical Least Skipper, Orange Skipperling, Southern Skipperling, Clouded Skipper, Liris Skipper, Julia's Skipper, Gala Skipper (*Paratrytone gala*), Dun Skipper (*Euphyes vestris*).*

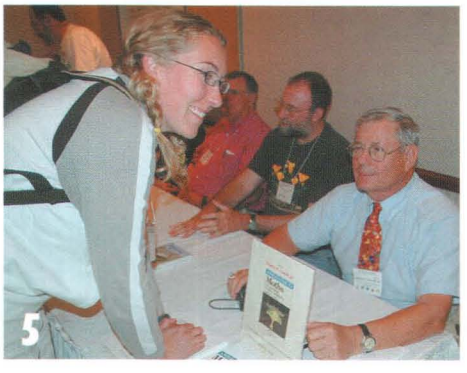
'05 Trips...*continued from pp. 92*

Hesperiidae

Dull Firetip	Pyrrhopyge araxes
Silver-spotted Skipper	Epargyreus clarus
Short-tailed Skipper	Zestusa dorus
Arizona Skipper	Codatractus arizonensis
Dorantes Longtail	Urbanus dorantes
Golden-banded Skipper	Autochton cellus
Desert Cloudywing	Achalarus casica
Northern Cloudywing	Thorybes pylades
Drusius Cloudywing	T. drusius
Valeriana Skipper	Codatractus mysie
Acacia Skipper	Cogia hippalus
Caicus Skipper	C. caicus
Golden-headed Scallopwing	Staphylus ceos
Arizona Powdered Skipper	Systasea zampa
Junvenal's Duskywing	Erynnis juvenalis
Meridian Duskywing	E. meridianus
Mournful Duskwing	E. tristis
Funereal Duskwing	E. funeralis
White Checkered-Skipper	Pyrgus albescens
Common Checkered Skipper	P. communis
Desert Checkered Skipper	P. philetas
Common Streaky-Skipper	Celotes nessus
Common Sootywing	Philisora catullus
Four-spotted Skipperling	Piruna polingi
Clouded Skipper	Lerema accius
Edward's Skipperling	Oarisma edwardsii
Orange Skipperling	Copaeodes aurantiacus
Sunrise Skipper	Adopaeoides prittwitzi
Fiery Skipper	Hylephila phyleus
Pahaska Skipper	Hesperia pahaska
Carus Skipper	Polites carus
Taxiles Skipper	Poanes taxiles
Moon-marked Skipper	Atrytonopsis lunus
Lg. Roadside Skipper	Amblyscirtes exoteria
Cassus Roadside Skipper	A. cassus
Bronze Roadside Skipper	A. aenus
Elissa Roadside Skipper	A. elissa
Texas Roadside Skipper	A. texanae
Slaty Roadside Skipper	A. nereus
Nysa Roadside Skipper	A. nysa
Dotted Roadside Skipper	A. eos
Orange-edge Roadside Skipper	A. fimbriata



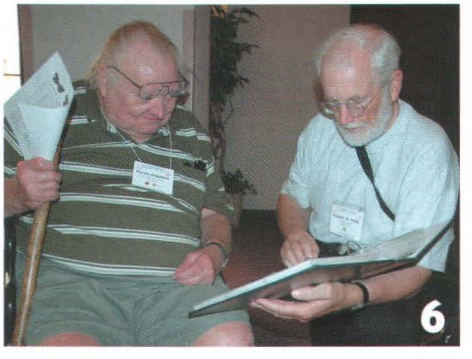


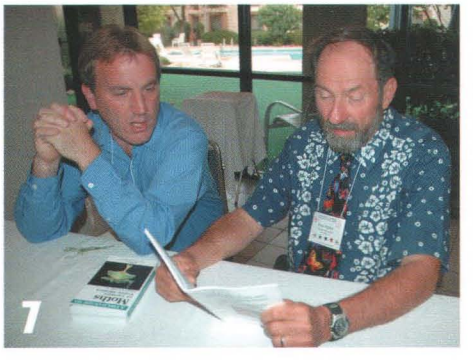


Above: *Paranthrene fenestrata* (?, Sessiidae), tentatively identified by Ron Leuschner. Photo by Steve Graser taken August 5, 2005 near Lake Tahoe, CA. See caption for Steve's photo on lower right pp. 77 for camera/lens info. Please send any ID corrections/ideas to the photographer at ***segraser1@pacbell.net***.

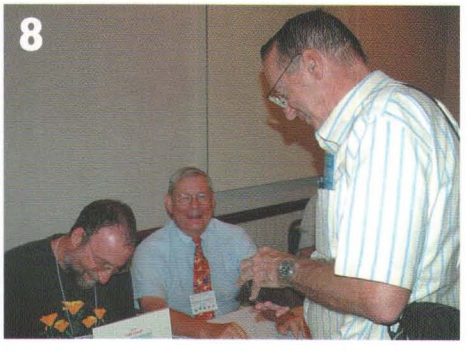
More Meeting '05 Photos...

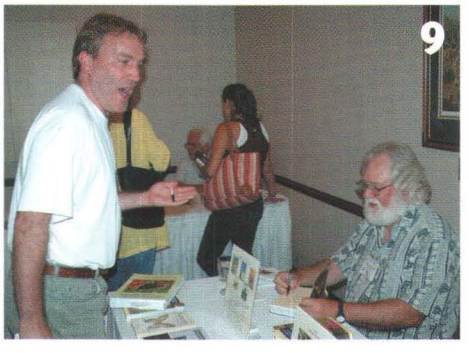
1) John Acorn, Akito Kawahara and Vasrik Nazari; **2)** Valeriu Albu and Eric Metzler; **3)** Priscilla and Hank Brodkin, meeting co-organizers, at book signing with Cristrina Frargois; **4)** Manuel Balcazar-Lara and Carmen Pozo; **5)** Amanda Roe at book signing with Eric Metzler (back), Fred Heath (left) and Charlie Covell; **6)** Karolis Bagdonis and Ken Philip; **7)** outgoing (and out-going) prez James Adams with meeting organizer Paul Opler; **8)** Fred Heath, Charlie Covell and Tom Emmel; **9)** James Adams and Bob Pyle. Photos by Ranger Steve Mueller.

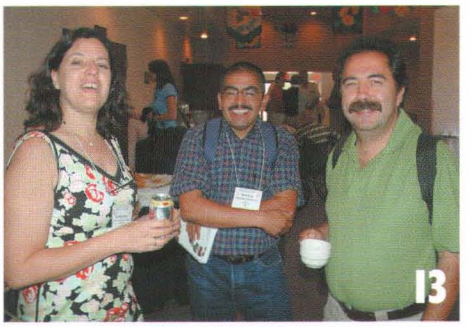


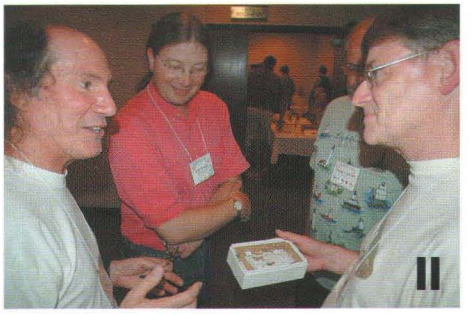


Above: A face only a lepidopterist could love? *Poanes melane* (Hesperiidae). Photo by Steve Graser (***segraser1@pacbell.net***) taken at Dry Creek Park in Union City, CA on April 30, 2005. See caption for Steve's photo on lower right pp. 77 for camera/lens info.









10) Louise Fall; **11)** John Brown, Andy Brower, George Balogh (hidden) and John Snyder discuss this year's collection; **12)** Charlie Covell and Ken Kaufman watch Jim Brock sign a book for Kara Anderson; **13)** Carmen Pozo, Jose-Luis Salinas-Gutierrez and Armando Luis. Photos by Ranger Steve.

Membership

The Lepidopterists' Society is open to membership from anyone interested in any aspect of lepidopterology. The only criterion for membership is that you appreciate butterflies or moths! To become a member, please send full dues for the current year, together with your current mailing address and a note about your particular areas of interest in Lepidoptera, to:

Kelly Richers,
Assistant Treasurer,
The Lepidopterists' Society
9417 Carvalho Court
Bakersfield, CA 93311

Dues Rate

Active (regular)	$ 45.00
Affiliate (same address)	10.00
Student	20.00
Sustaining	60.00
Contributor	100.00
Institutional Subscription	60.00
Air Mail Postage for **News**	15.00

Students must send proof of enrollment. Please add $ 5.00 to your Student or Active dues if you live outside of the U.S. to cover additional mailing costs. Remittances must be in U.S. dollars, payable to "The Lepidopterists' Society". All members receive the **Journal** and the **News** (each published quarterly). Supplements included in the **News** are the Membership Directory, published in even-numbered years, and the Season Summary, published annually. Additional information on membership and other aspects of the Society can be obtained from the Secretary (see address inside back cover).

Change of Address?

Please send permanent changes of address, telephone numbers, areas of interest, or e-mail addresses to:

Julian P. Donahue, Assistant Secretary,
The Lepidopterists' Society,
Natural History Museum of Los Angeles County, 900 Exposition Blvd.,
Los Angeles, CA 90007-4057.
Julian@donahue.net

Our Mailing List?

Contact Julian Donahue for information on mailing list rental.

Missed or Defective Issue?

Requests for missed or defective issues should be directed to: Ron Leuschner (1900 John Street, Manhattan Beach, CA 90266-2608, (310) 545-9415, ***ron leusch@aol.com***). Please be certain that you've really missed an issue by waiting for a subsequent issue to arrive.

Memoirs

Requests for Memoirs of the Society should be sent to Publications Manager, Ken Bliss (address opposite).

Submissions of potential new Memoirs should be sent to:

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Computer Systems Office, Peabody Museum of Natural History, P. O. Box 208118, Yale University, New Haven, CT 06520-8118
lawrence.gall@yale.edu

Journal of the Lepidopterists' Society

Send inquiries to:

Michael E. Toliver
(see address opposite)
miketol@eureka.edu

Book Reviews

Send book reviews or new book releases for the **Journal** to:

P. J. DeVries,
Dept. Biological Sciences, University of New Orleans, New Orleans, LA 70148,
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*Send book reviews or new book releases for the **News** to the News Editor.*

WebMaster

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Submission Guidelines for the News

Submissions are always welcome! Preference is given to articles written for a non-technical but knowledgable audience, illustrated and succinct (under 1,000 words). Please submit in one of the following formats (in order of preference):

1. Electronically transmitted file and graphics—in some acceptable format —*via* e-mail.

2. Article (and graphics) on diskette, CD or Zip disk in any of the popular formats/platforms. Indicate what format(s) your disk/article/graphics are in, and call or email if in doubt. Include printed hardcopies of both articles and graphics, a copy of the article file in ASCII or RTF (just in case), and alternate graphics formats. Media will be returned on request.

3. Color and B+W graphics should be good quality photos or slides suitable for scanning or—preferably—electronic files in TIFF or JPEG format at least 1200 x 1500 pixels for interior use, 1800 x 2100 for covers. Photos or slides will be returned.

4. Typed copy, double-spaced suitable for scanning aand optical character recognition. Original artwork/maps should be line drawings in pen and ink or good, clean photocopies. Color originals are preferred.

Submission Deadlines

Material for Volume **47** must reach the Editor by the following dates:

Issue	Date Due
1 Spring	missed it!
2 Summer	gone by!
3 Autumn	sorry!
4 Winter	Oct. 28, 2005

Reports for Supplement S1, the Season Summary, must reach the respective Zone Coordinator (see most recent Season Summary for your Zone) by Dec. 15. See inside back cover for Zone Coordinator information.

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Refer to Season Summary for Zone coverage details.

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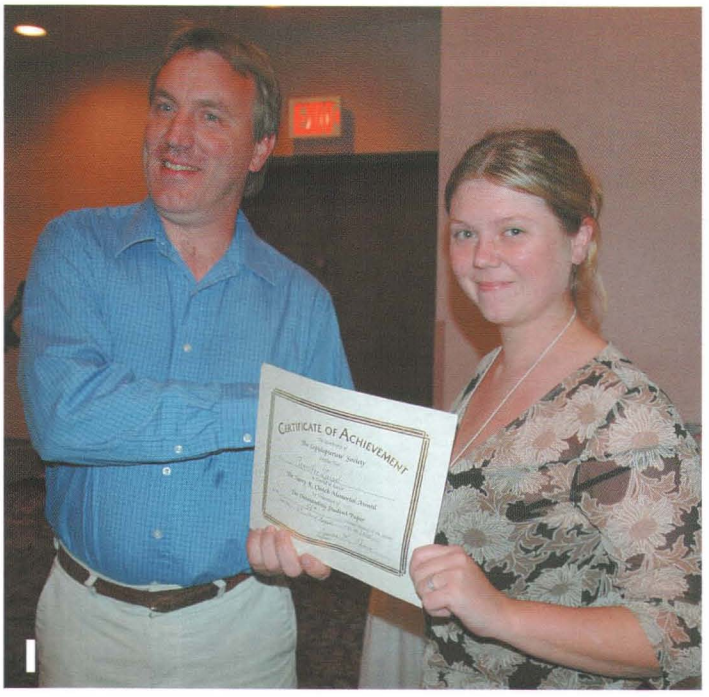

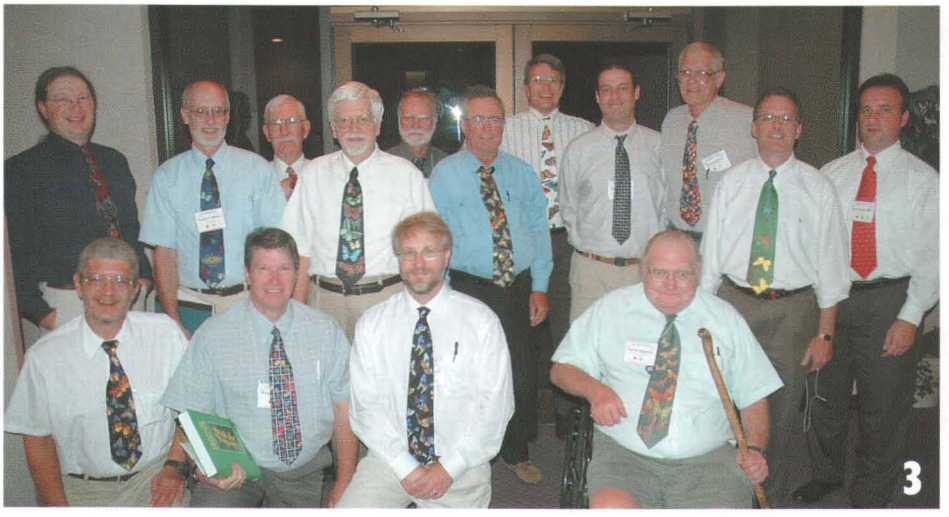

'05 Meeting Photos...

1) President James Adams presents Clench Award for Best Student Poster to Jennifer Zaspel; **2)** President James Adams presents Clench Award for Best Student Paper to Doug Blackiston; **3)** The "Tie Brigade" rides again!; **4)** Not to be outdone, the Ladies pose in their "Lepidoptera Attire"; **5)** SEABA President Elizabeth Sullivan welcomes participants to the joint meeting of the Lepidopterists' Society and the South Eastern Arizona Butterfly Association. All photos by Ranger Steve Mueller.