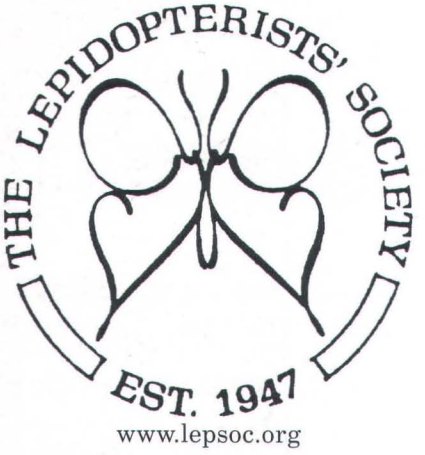
Volume 49, Number 1 Spring 2007



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NEWS OF THE LEPIDOPTERISTS' SOCIETY

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Front Cover:

The Red Spotted Patch (*Chlosyne melitaeoides*), November 9, 2006, Bensen-Rio Grande Valley State Park, Hidalgo Co., TX. USA. Photo by David Hanson.

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.)

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"Year of the *Chlosyne*" in Texas

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Introduction

It seems that every year, some exotic butterfly shows up in the Rio Grande Valley. One never knows what it may be, but invariably, *something unusual* generally does. Whatever it may be; it may be a singleton, a half-dozen, or a mass migration. 2006 was no exception, as the genus *Chlosyne* Butler, 1870 started showing up in field reports across the southern half of the state. This note is simply news at this point, and not intended to be of a technical nature.

Chlosyne lacinia (Geyer, 1837)

Such reports of common species are not unusual. *Chlosyne lacinia adjutrix* Scudder, 1875 is the most common species reported. Known to many as the "Bordered Patch," *C. lacinia* has several subspecies and forms. The western ssp. *crocale* (W. H. Edwards, 1874), is fairly common at times in West Texas, and will occur in a near pure form in the western Rio Grande Valley; or as an intergrade with *adjutrix* throughout the valley.

In 2006, pure *adjutrix*, *crocale*, and intergrades of both occurred in the valley, as well as an unusual form of *adjutrix* that superficially resembles *Chlosyne californica* (W. G. Wright, 1905). We are not sure if this form has a name, at present. If there is no present nomenclature, we would propose form "californ-ioides." A specimen is figured to illustrate this unusual form. We observed several of these at Bentsen State Park, but were unable to take vouchers from the garden area. However, John Tveten took a specimen in Mission. (figured). Two new counties were reported for C. lacinia in 2006.

Chlosyne nycteis (E. Doubleday, [1847])

Another locally common species, *Chlosyne n. nycteis* (E. Doubleday, [1847]) occurs in East Texas. Known to some as "Silvery Checkerspot," this species was recorded more from the field in 2006, than in any other previous years. This may just be a result of more "watchers" in the field than before, but our personal observations around the Lake Livingston area found this species to be rather common in the region. Bordelon first reported this species from that area in the early 1990's, but only found a few specimens. In 2006, we found this species to be common across the area. *C. n. nycteis* in East Texas has both a normal and a melanic form. Both fly together, and it is our opinion that none of these melanic forms represent the subspecies *C. n. drusius* (W. H. Edwards, 1884). *C. nycteis* was reported from 5 new counties in 2006.

Chlosyne gorgone (Hübner, 1810)

Chlosyne g. gorgone (Hübner, 1810), known as the "Gorgone Checkerspot," can be locally common in northern and eastern Texas. Like *C. nycteis*, this species also exhibits a melanic form, resembling the ssp. *C. gorgone carlota* (Reakirt, 1866), but there is no evidence that this ssp. occurs in the eastern half of Texas. Two new county records were recorded by us in the Panhandle region in 2006.

Chlosyne definita (E. Aaron, 1885)

Chlosyne d. definita (E. Aaron, 1885), known as the "Definite Patch," was found to be very common in Kleberg County around Kingsville in 2006. It was also found in good numbers east of Brownsville, in Cameron Co., in the Loma Alta area. This species occurs locally in Texas from Kingsville to El Paso, generally, but strays have been reported from the Panhandle area, and may have locally isolated colonies north of the general range. One new county record was reported from Lubbock Co. by J. Barry Lombardini.

Chlosyne theona (Ménétriés, 1855)

There are three named subspecies of *C. theona*, (Theona Checkerspot) in Texas. (According to what we've seen in the new revision.) Two of these, we are in agreement with; but the third, we have our doubts about, at least, at the time of this writing. Our most encountered is *Chlosyne theona bolli* (W.H. Edwards, 1877).

C. theona bolli occurs commonly from southern Texas, to central Texas. While commonly mentioned from southern Texas, and only occasionally from central Texas, 2006 produced an enormous number of reports from the Hill Country/Austin area. While only recorded from three new counties, these were all east of the "normal" range.

Second, is the ssp. *C. theona thekla* (W. H. Edwards, 1870). Basically a denizen of the high desert, *C. theona thekla* ranges from Val Verde Co., westward throughout the Trans-Pecos region of Texas, and westward to Arizona. It can be abundant after monsoon rains in sagebrush country. It also produces a melanic form.

Third, and least encountered, is the Trans-Pecos entity, *C. theona chinatiensis* (Tinkham, 1944). (Chinati Checkerspot). We are unsure why this has been demoted to subspecific status,

continued on pp. 6

A Sampling of the *Chlosyne* in Texas

Fig. 1, 2, *Chlosyne eumeda*: State record, Starr Co., TX, 6 km W of Sullivan City, 22 Oct 1974, leg. Bill McGuire. Photo: Texas Lepidoptera Survey (TLS); **Fig.3, 4** *C. melitaeoides* collected and photographed by Jerry McWilliams on 11 Nov 2006 near Penitas in Hidalgo Co, TX.; **Fig. 5, 6** *C. rosita* collected and photographed by Jerry McWilliams in Rio Grande City on 31 Oct 2006.

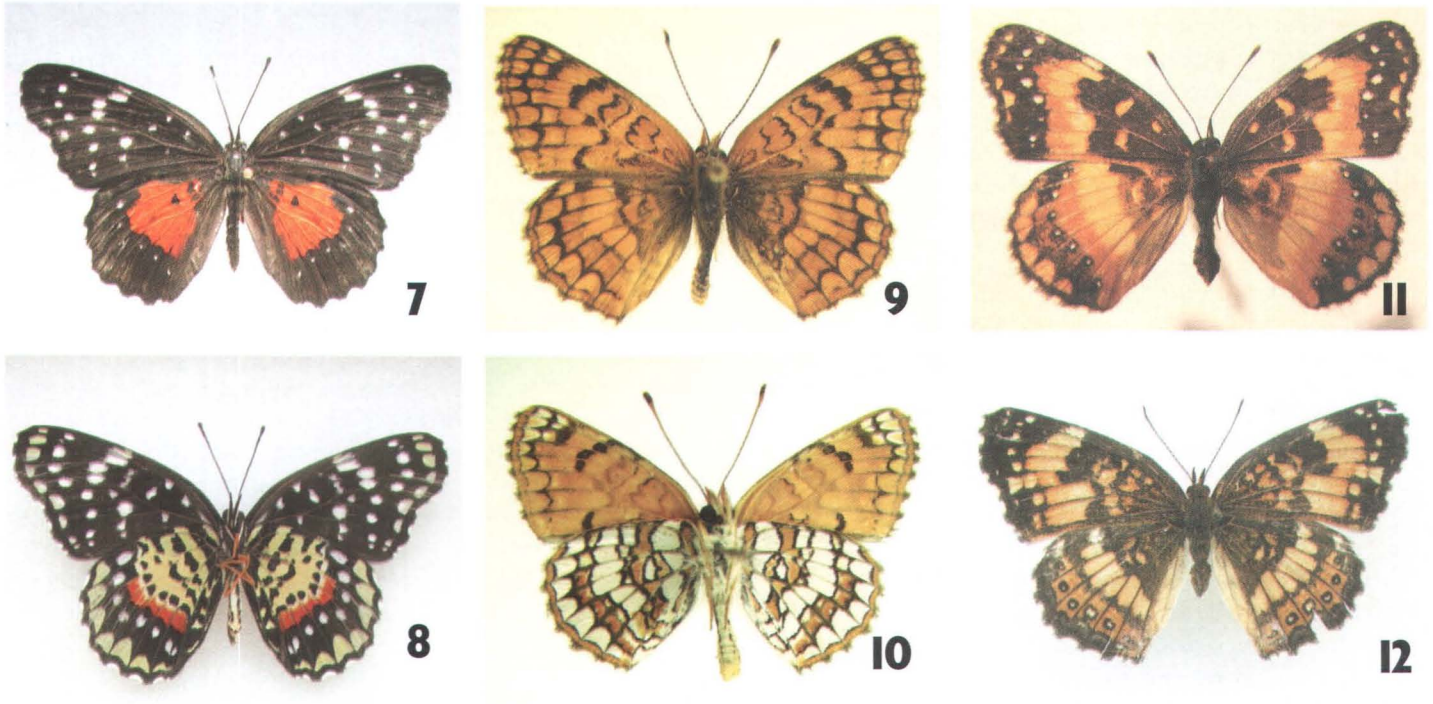

Fig. 7, 8: *C. janais*, Medina Co., TX, 7 Oct., 2001, collected by D. Clark; **Fig. 9, 10:** *C. acastus neumoegenii*, NV: Clark Co. Red Rock Cyn. 23 April 1980, collected by Ed Knudson; Photo: TLS. **Fig 11:** *C. lacinia adjutrix,* that superficially resembles *C. californica,* collected and photographed by John Tveten in Mission , TX on November 13, 2006; **Fig. 12:** *C. nycteis*, collected by D. Clark May 9, 2006, Wise Co., TX.

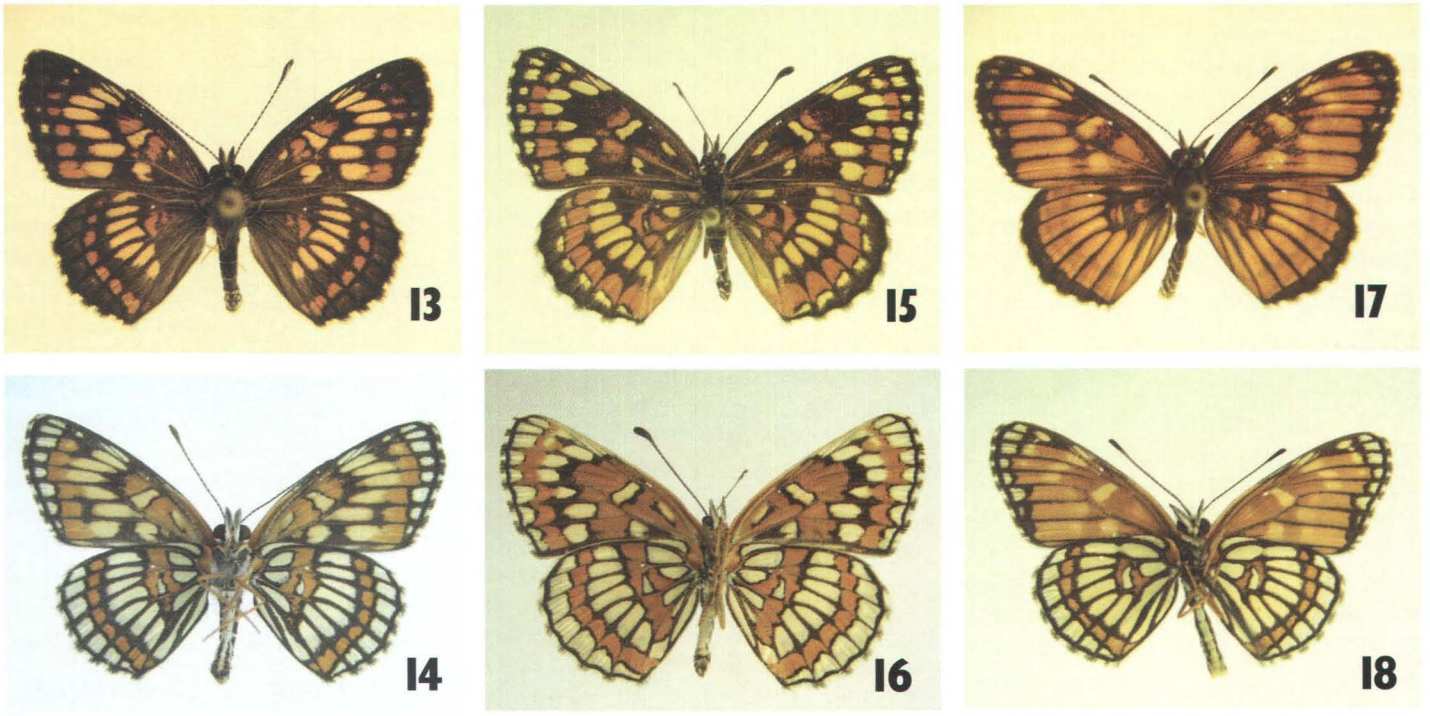

Fig. 13, 14: *C. theona bolli*, Nueces Co, TX, Lake Corpus Christi SP 19 Apr 1999, collected by Ed Knudson; photo: TLS; **Fig. 15, 16:** *C. theona thekla*: El Paso Co., TX, Franklin Mts. SP 28 Jun 1997, collected by Charles Bordelon; photo: TLS; **Fig 17, 18**: *C. theona chinatiensis,* Culberson Co., TX, 10 mi N of Van Horn 1 Sep 1975, collected by Ed Knudson; photo: TLS.

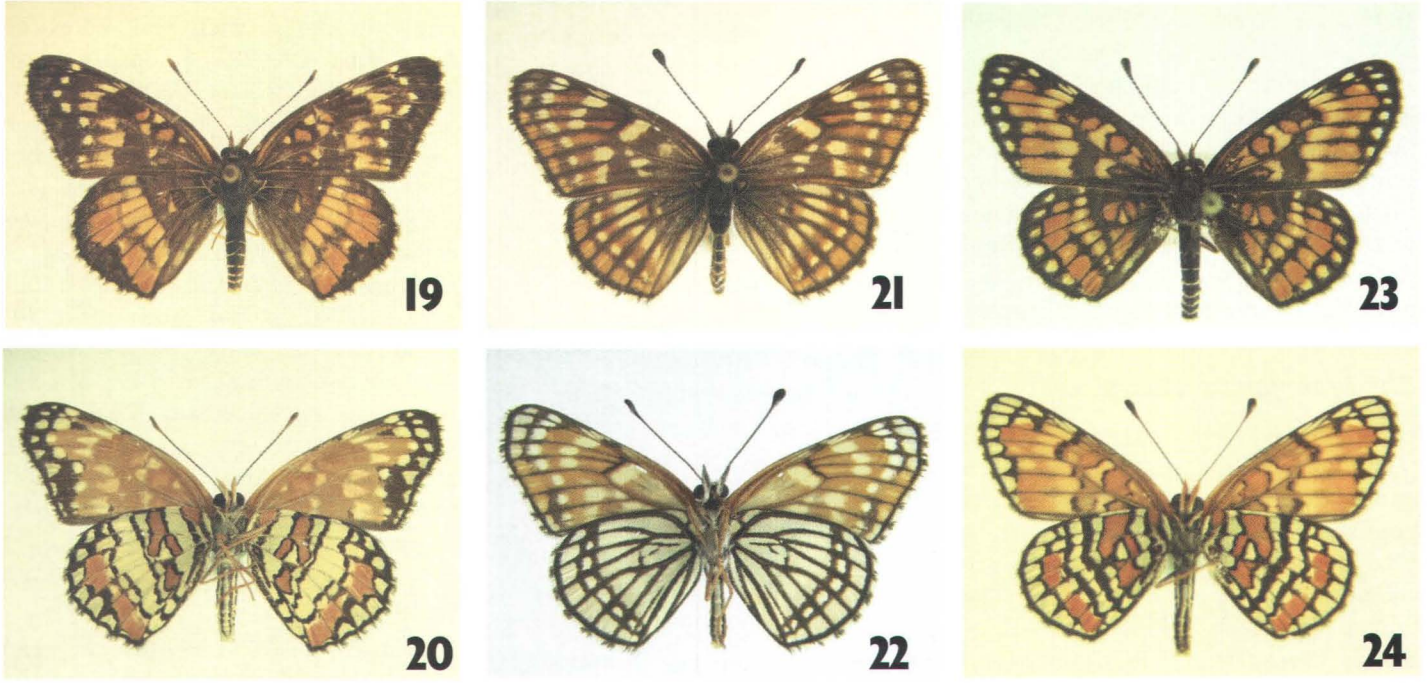

Fig. 19, 20: *C. endeis pardelina*, Starr Co.,TX, 5 mi W of Sullivan City 27 Jul 1975, collected by Ed Knudson, photo TLS; **Fig 21, 22:** *C. f. fulvia*, Jeff Davis Co., TX, 15 mi W of Ft. Davis 31 Aug 1975, collected by Ed Knudson, photo: TLS; **Fig 23, 24:** *C. definita* El Paso Co., TX, Franklin Mtns. SP 6 Apr 1997, collected by Charles Bordelon, photo TLS.

Chlosyne... Cont.from p.3

or not considered a form. Bordelon has observed and collected both *C. t. thekla* and *C. t. chinatiensis* flying together in Black Gap WMA. While both feed on *Leucophyllum* (Sagebrush,) they apparently prefer different species. We simply believe this needs more research. We are not casting stones; we are simply reporting what we know. It certainly doesn't insinuate we know everything.

Chlosyne fulvia (W. H. Edwards, 1879)

Chlosyne f. fulvia (W. H. Edwards, 1879), the "Fulvia Patch," has occurred very sparingly in western and northern Texas according to reports over the last 20 years. We only received a single report in 2006 from Ro Wauer, who photographed a specimen at Sam Nail Wash, Big Bend National Park, in Brewster Co. No new county records were reported.

Chlosyne acastus (W.H. Edwards, 1874) (1870)

Chlosyne acastus neumoegenii (Skinner, 1895), has been reported from El Paso and Hudspeth counties. We have never seen authentic Texas specimens, so we cannot authenticate these. It has not been reported in over 30 years, and some confusion has occurred as to what these may actually be. Web searches were unproductive and outdated, and the new revisions do not define exactly what the Texas entity may be. Further field research should be done.

Chlosyne janais (Drury, 1872)

Chlosyne j. janais (Drury, 1872), "Crimson Patch," occurs in southern and central Texas. Southern Texas populations tend to fluctuate from year-to-year, but a few very hardy colonies occur in central Texas. The "most famous" colonies occur at Hondo Creek, in Medina County; and Garner SP in Uvalde Co. That trend continued in 2006.

Chlosyne rosita A. Hall, 1924

Chlosyne rosita browni Bauer, 1961, "Rosita Patch" was once well established at Santa Ana National Wildlife Refuge, Hidalgo Co. TX. The colony there was destroyed by flooding in the mid-1970's. Since then, it has been rarely encountered in extreme south Texas, most recently in 2006. (One stray was reported from the Panhandle during the 1980's) Bordelon predicted that it would be recorded in 2006 in the Rio Grande Valley to D. Muschalek (pers. com.,) two months prior to it's "rediscovery," when it was found in September by Richard Boscoe, in Hidalgo Co., and in Starr Co., by Jerry McWilliams; which was a new county record.

Chlosyne endeis (Godman & Salvin, 1894)

Chlosyne endeis pardelina Scott, 1986, the "Banded Patch," is another species that has been sparsely recorded in the last 30 years. It ranges from south to south-central Texas in isolated colonies. This, and the next two species are generally known from the valley in the same general vicinity. Boscoe collected one female in Hidalgo Co., in Sullivan City. He managed to get the female to oviposit on *Carlowrightia parviflora*, (Acanthaceae) and at last report, the larvae were feeding successfully.

Chlosyne melitaeoides (C. Felder & R. Felder, 1867)

Chlosyne melitaeoides (C. & R. Felder, 1867), the "Red-spotted Patch," returned to the valley after a 30-year absence, and caused quite a stir... This attractive species was first found in Texas and the USA by W.W. McGuire in 1973, in Starr Co., TX. (Kendall & McGuire, 1984).

It subsequently was found for a few more years in the same region, but has not been seen again in the USA until 2006, when about a dozen specimens were found in Hidalgo Co., TX. in Bentsen State Park, NABA International Butterfly Park, and Penitas. Boscoe attempted to rear from ova on *Carlowrightia parviflora*, (Acantheaceae) without success. The larval host remains unknown, but the list has been narrowed, and if breeding efforts were successful in the wild, this species may be encountered again in 2007, and further information may be gained.

The first specimen in 2006 was found at Bentsen SP, by Ric Snider and Jim Booker on 9 November, and David Hanson arrived shortly after to photograph the specimen shown on the cover of this issue. There were no vouchers taken at NABA IBP, or Bentsen SP. Three vouchers were taken in Penitas, a few miles to the west by Jerry McWilliams, and Richard Boscoe. The McWilliams specimens are figured. The Boscoe specimen is retained in the TLS collection. The Hidalgo Co. specimen of 9 September was a county record.

Chlosyne eumeda (Godman & Salvin, 1894)

STATE RECORD

Chlosyne eumeda (Godman & Salvin) is known from Texas from a single male specimen with the following data: Starr Co., TX., 6 miles west of Sullivan City, 22-X-74 (W.W. McGuire). The specimen was given to Knudson sometime in the early 1980's, but the details of this transfer are obscure. The specimen, however, was collected along with the series of *C. melitaeoides* collected in 1974, but was papered, stored, and frozen for a number of years, before it was spread and mounted. This species occurs in north-central Mexico and also has been collected in southeastern Arizona. It has not been previously reported in the literature from the USA. We have not yet seen any Arizona material of this taxon.

Previously, both *C. melitaeoides* and *C. eumeda* were considered to be forms or subspecies of *Chlosyne marina* (from western Mexico), but now all are considered to be separate species.

Though not previously reported, Bordelon brought this to the attention of Andy Warren, Kilian Roever, Jim Brock, and Mike Quinn. According to Roever, Warren, and Brock; it was no secret that this species has been collected in Arizona in a few locations. We have previously illustrated this specimen in our Checklist of the Butterflies of the Lower Rio Grande Valley as *Chlosyne marina eumeda*. We were unsure of it's status until reviewing the Pelham Checklist and its newly revised status. This could be "technically" termed as a new US RECORD, but we know that some Arizona records predate the McGuire specimen.

We are content to report this as a state record.

Conclusion

It should be apparent that anything in Lepidoptera is not written in stone. We learn more every year as research techniques improve and/or succeed. We also benefit from the many who also spend so much time in the field; the ultimate laboratory. We are simply passing on these notes as a matter of public interest. There is still so much to be learned. To look at the specific data and localities of all species mentioned here that were published for the 2006 record, please refer to the Lepidopterists' Society Season Summary.

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Pelham J., 2007. Checklist of Butterflies of the United States and Canada. in press Warren A., editor, Catalogue of the Butterflies of the United States and Canada . Journal of Research on the Lepidoptera, Vol. 40 (in press).

Acknowledgements

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Kricogonia lyside eggs in the Florida Keys

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Salvato et al. (2006) discussed *Kricogonia lyside* dispersal and natural history in the Florida Keys. On 9 July 2006, we, along with Dennis J. Olle, observed mating and oviposition by *K. lyside* on Stock Island and Key West, marking the first known observations of reproduction by this species in the state. Although these observations were noted in Salvato et al. (2006), pictures of the eggs were not published with the note. Therefore we present them here. Figure 1, taken on Stock Island, shows several eggs oviposited on the native lignum vitae (*Guaiacum sanctum*). Figure 2, taken on Key West, shows a single egg laid on the non-native Maracaibo lignum vitae (*Bulnesia arborea*). Several weeks later on 29 July 2006 we observed additional oviposition by *K. lyside* on *G. sanctum* on the island of Key Vaca.

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Salvato, M. H, Calhoun, J. V., & H. L. Salvato. 2006. Observations of Kricogonia lyside in the Florida Keys. J. Lepid. Soc. 60:171-174.

Fig. 1 Eggs of *Kricogonia lyside* on *Guaiacum sanctum*. See Fig. 2 on pp. 37. Photo: H.L. Salvato.

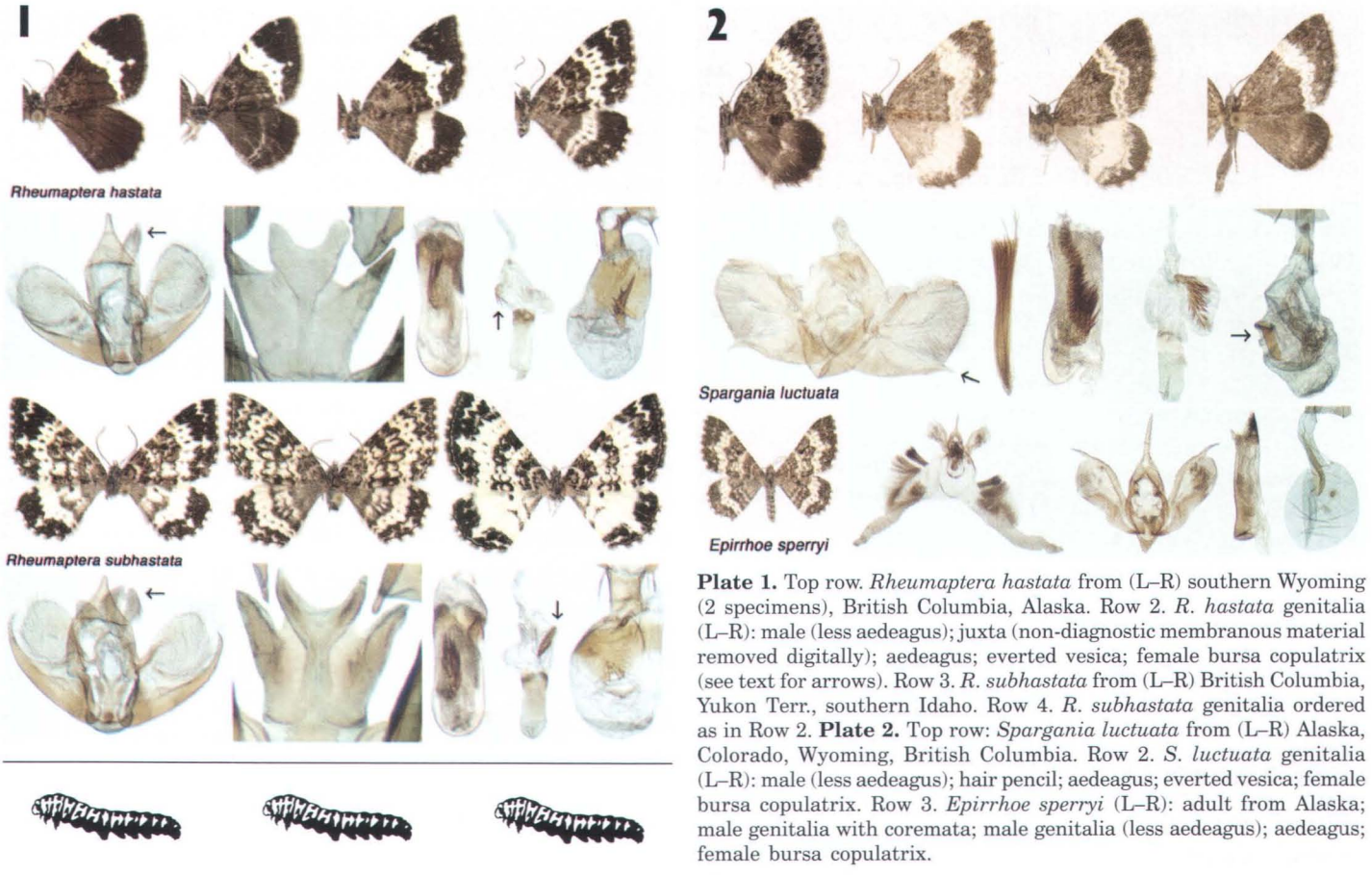

Plate 1. Top row. *Rheumaptera hastata* from (L–R) southern Wyoming (2 specimens), British Columbia, Alaska. Row 2. *R. hastata* genitalia (L–R): male (less aedeagus); juxta (non-diagnostic membranous material removed digitally); aedeagus; everted vesica; female bursa copulatrix (see text for arrows). Row 3. *R. subhastata* from (L–R) British Columbia, Yukon Terr., southern Idaho. Row 4. *R. subhastata* genitalia ordered as in Row 2. **Plate 2.** Top row: *Spargania luctuata* from (L–R) Alaska, Colorado, Wyoming, British Columbia. Row 2. *S. luctuata* genitalia (L–R): male (less aedeagus); hair pencil; aedeagus; everted vesica; female bursa copulatrix. Row 3. *Epirrhoe sperryi* (L–R): adult from Alaska; male genitalia with coremata; male genitalia (less aedeagus); aedeagus; female bursa copulatrix.

First United States Record of *Bulia schausi*

Fig. 1 *Bulia schausi* male from Pima Co., AZ. **Fig. 2** Everted vesica showing the single large spine.

Four confusing Alaskan/boreal Geometrids

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The various forms of four species of "black-and-white" diurnal geometrids found in northern North America and montane regions in the United States can be very perplexing when trying to make identifications by visual inspection of the adults. These species are: *Rheumaptera hastata* (L.); *R. subhastata* (Nolcken); *Spargania luctuata* (D. & S.); *Epirrhoe sperryi* Herbulot. The first three moths have wide distributions in the Old World as well as in North America. The European counterparts to *Epirrhoe sperryi* are *E. hastulata* Hübner and *E. tristata* (L.).

Apparently *R. hastata* and *subhastata* in the Old World are not so variable in maculation as they are in North America. European field guides describe visual characters for separating the two species, but these characters fail in the New World. Generally speaking, the white wing pattern is more extensive on *subhastata* than *hastata*, but the only reliable method to insure correct identification is by genitalic dissection. Both species are recorded from across Canada into Alaska, from Maine (*subhastata*) south to North Carolina (*hastata*) in the East, and in the western Dakotas, the Rockies and Intermountain Region south to at least northern Wyoming (*subhastata*) and Colorado (*hastata*) in the West. Both species use many larval hosts. Plate 1 illustrates forms of these two species with their respective male and female genitalia. In the West, *R. hastata* appears to be more variable in wing pattern than *subhastata*. Although various field guides and web sites show dark forms of *subhastata* similar to the left hand specimens of *hastata* illustrated in Plate 1 (pp. 8), all of the many dissections that I have made of dark specimens have proven to be *hastata*. The key genitalic characters that identify these two species are:

R. hastata males: slender elongate socii (arrow); broad-lobed juxta; 3 slender separated spinose cornuti (arrow). Females: prominent rather variable spinose chitinous plate inbursa copulatrix with additional smaller spinose patches.

R. subhastata males: broad curved socii (arrow); "fish-tail" or letter "Y" juxta; bundle of spinose cornuti that do not separate upon vesica eversion (arrow). Females: a few small diffuse spinose patchesin bursa copulatrix.

Spargania luctuata ranges from Labrador across Canada to Alaska, south through western Canada into Colorado, and can easily be confused with dark forms of *R. hastata*. The reported larval hosts are *Epilobium* sp., and *Galium* sp. As shown in Plate 2, the key genitalic characters are: Males: broad and delicate valves with projection (arrow); two prominent abdominal terminal hair pencils (one shown); assemblage of spinose cornuti forming a brush. Females: large tubular signum (arrow) in bursa copulatrix.

Epirrhoe sperryi ranges in bogs and montane habitats from Labrador across Canada to Alaska, and south in the Rockies to Colorado. The larval host is *Galium* sp. It can be easily mistaken for a small *R. hastata* or *subhastata*. As shown in Plate 2, the genitalia immediately separate sperryi from the three other species. The gigantic coremata dwarf the male genitalia; there are no visible cornuti in the aedeagus. The bursa copulatrix has a broad chitinous band extending most of the length of the ductus bursae into the corpus bursae; there is a circular spinose signum.

First United States Record for *Bulia schausi* Richards: Noctuidae

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During the 2006 season, I retained for subsequent dissection all of the apparent *Bulia deducta* (Morrison) from my UV lighttraps in the hope of finding a few specimens of *Bulia similaris*Richards. Removal by brushing of the terminal abdominal scales to expose the female genital plate uncovered a single female *similaris* from Cochise Co., AZ. Full dissection of the males uncovered no *similaris*, but one specimen of *B. schausi* from Tortolita, Pima Co., AZ on the night of 7 October, 2006. This is a Mexican species discussed in Pogue and Laughlin (2002). The specimen is shown in Fig. 1 along with the everted vesica (Fig. 2) showing the single large and robust spine. In *deducta* and *similaris*, there are two muchsmaller spines located at opposite ends of the inflated vesica.My experience suggests that *Bulia* specimens should not be discarded out of hand as the common *deducta*. *Bulia* species adults cannot be separated visually; genitalic examination is required.

Pogue, M. G. & A. C. Laughlin (2002) A revision of the genus *Bulia* Walker (Lepidoptera: Noctuidae). J. Lepid. Soc., 56(3):129-150.

Conservation Matters: Contributions from the Conservation Committee

With this column, we kick off one of the more visible products of the Society's Conservation Committee – Conservation Matters. The double entendre speaks well to our goals for the column. We plan to bring conservation concerns and developments that impact our membership to the forefront. A forum for our committee members to discuss the issues, events, and research that excites and motivates them. But just as importantly, we hope to demonstrate that conservation does matter and that the decline of ecosystems and the Lepidoptera they support impact all of our interests. Collectors, watchers, researchers..., anyone and everyone with an interest in moths and butterflies is affected.

It's worth noting that this column will reflect various viewpoints from the committee. It won't just include my own opinions in every issue, telling you over and over again about my particular concerns. Rather, we hope that as the column matures, it will truly reflect the full range of issues, threats and strategies that impact our beloved insects. Dave Wager's kick-off for this column is exemplary – a unique assessment of an ecological threat that most are completely unaware of. As I've watched this particular disaster unfold right in my own back yard, attended strategy meetings with impacted stakeholders, and tried to find the funding required to push eradication during the initial discovery phase, I've been amazed by the lack of interest by the general population. I think Dave's column brings the impact home to us – ash feeding specialist moths are doomed if the dire predictions are correct. I honestly don't know of any workable strategies for averting this "mini-extinction" episode, but maybe someone in our membership has a great idea. And that's the point – we bring this and other issues before you because it matters.

John Shuey,
Chair, Conservation Committee

Emerald Ash Borer Threatens Ash-feeding Lepidoptera

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Introduced species can have devastating effects on resident biotas. The accidental release of two exotic plant pathogens, chestnut blight and Dutch elm disease, to North America, are two well known examples. Foreign insects that have had significant impact on our flora and fauna include the balsam woolly adelgid, hemlock woolly adelgid, and the introduced lady beetles that appear to have displaced native species.

The Emerald Ash Borer (*Agrilus planipennis*) (Buprestidae), a native to Southeast Asia, was first reported in the United States in July 2002 in the vicinity of Detroit, Michigan—likely it had become established as much as a decade previously. It is believed to have been introduced in wooden shipping pallets at ports off of Lake Huron (Haack et al. 2002). While its natural rate of spread has been estimated to be a half-mile per year (McCullough et al. 2005), human movement of nursery stock and infected (fire) wood has greatly accelerated the insect's dispersal—the beetle is now established and adversely affecting over 40,000 square miles in Illinois, Indiana, Maryland, Michigan, Ohio, and southern Ontario (Anonymous 2006, http://www.emeraldashborer.info/index.cfm). No doubt, additional outlying infestations are as yet undetected, and will only be recognized as symptoms of infestation become evident and attacked trees are located through detection surveys.

Larvae of the Emerald Ash Borer tunnel between the bark and wood, largely through the phloem, destroying the host tree's ability to conduct nutrients (Haack et al. 2002). Heavily infested trees are killed; in some Midwestern forests and woodlands the mortality approaches 100%. The EAB is believed to have killed more than 20 million ash trees in the Midwest since 2002 (Anonymous 2006, http://www.emeraldashborer.info/index.cfm). Moreover, infestations may linger killing ash seedlings that regenerate under their fallen parents as well as the sucker shoots and stump sprouts that issue from dying trees, once their girth approaches an inch or so.

All of our eastern North American ash (*Fraxinus*) species may be susceptible, regardless of whether they are growing in wetlands, floodplains, or upland forests. If the beetle's march continues unchecked, the ecological impacts will be grave. Ash is a co-dominant tree in many terrestrial plant communities, especially in rich, mesic woodlands, cove forests, swamps, floodplain and

bottomland forests. White ash is being systematically eliminated from upland forest systems in the upper Midwest. Ash-hickory glades represent one of Connecticut's unique plant community types (Metzler and Barrett 2006). In southeastern Michigan, black ash swamps (the principal habitat of Canadian Sphinx, *Sphinx canadanesis*) have suffered devastating mortality (John Shuey pers. comm.). The consequences are compounded: ash die-off in these swamps often allows the exotic glossy buckthorn to flourish.

If ash suffers the same fate as chestnut, many *Fraxinus* specialists will perish in the wake of the beetle's spread. Table 1 lists 21 species of Nearctic Lepidoptera believed to specialists or largely dependent on ash. Additional ash-feeding oligophags may also be affected: e.g., the Fringe-tree Sallow, *Adita chionanthi* (Noctuidae) also eats fringe-tree; the Lilac Leafminer, *Caloptilia syringella* (Gracillariidae) feeds on ash and lilac; and the Fawn Sphinx, *Sphinx kalmiae* (Sphingidae) and Lilac Borer, *Podosesia syringae* (Sesiidae), feed on a range of plants in the olive family (Oleaceae). It seems unlikely that species exploiting introduced hosts such as lilac (*Syringa*) and privet (*Ligustrum*), would persist many decades using only exotic hosts in urban and suburban landscapes. Likely they would eventually suffer the same fate as Ailanthus Silkmoth (*Samia cynthia*)—extirpation. And even if they were to persist, their population demographics and (genetics) would be massively restructured. Natural enemies, specialized on ash-feeding hosts, of course, would also plummet in distribution and abundance.

The threat to ash-feeding moths appears to be especially great in that all members of the genus *Fraxinus* are believed to be susceptible. There would be little hope for the long-term survival of the species in Table 1 if the EAB were to spread throughout North America without natural enemies or other factors to check the beetle's impacts. One can hope that the dire predictions promulgated by the USDA, Forest Service and others are exaggerated, but given what has transpired in portions of the Midwest, it is none too soon to take all reasonable measures to slow the insect's spread and ameliorate its impacts once established. It goes without saying that local or national measures to prevent or diminish further biological introductions deserve the Society's full support.

Members are urged to make an effort to sample the insect faunas of ash and other Oleaceae, in currently unaffected ecosystems. Such baseline data, especially if quantitative or effort-based, will allow us to more fully understand the beetle's impacts.

Scientific Name	Family	Comments
Caloptilia fraxinella	Gracillariidae	leafminer/shelter former
Caloptilia n. sp.	Gracillariidae	leafminer/shelter former
Ceratomia undulosa	Sphingidae	leaf feeder
Copivaleria grotei	Noctuidae	leaf feeder
Homoncocnemis fortis	Noctuidae	leaf feeder
Hydrelia* near *inornata	Geometridae	leaf feeder
Manduca jasminearum	Sphingidae	leaf feeder
Olceclostera angelica	Apatelodidae	leaf feeder; also on *Syringa*
Plagodis kuetzingi	Geometridae	leaf feeder
Marmara basidendroca	Gracillariidae	bast miner
Marmara corticola	Gracillariidae	bast miner
Marmara fraxinicola	Gracillariidae	bast miner
Papaipema furcata	Noctuidae	new shoot borer
Philtraea latifoliae	Geometridae	leaf feeder
Philtraea surcaliforniae	Geometridae	leaf feeder; diet breadth in need of study
Podosesia aureocincta	Sesiidae	trunk and stem borer
Sphinx canadensis	Sphingidae	leaf feeder; closely tied to *F. nigra*
Sphinx chersis	Sphingidae	leaf feeder; also on *Ligustrum* in suburban and urban areas.
Sphinx franckii	Sphingidae	leaf feeder
Zelleria hepariella	Yponomeutidae	leaf feeder
Zelleria ? semitincta	Yponomeutidae	*F. dipetala* leaf feeder; CA

Table 1. *A preliminary list of North American Fraxinus specialists. No doubt there are additional ash-feeders that belong on this list—much remains to be learned about life histories of Texan and western North American Lepidoptera. Members who know of other ash specialists are urged to contact John Shuey (jshuey@TNC.ORG) or Dave Wagner (david.wagner@uconn.edu).*

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A Dominican Republic Sojourn

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The island of Hispaniola in the Greater Antilles of the Caribbean is home to a large number of endemic organisms. This is also true for butterflies, especially in the family Nymphalidae. The endemic species and genera of Nymphalidae are particularly interesting in an evolutionary sense. There are many endemics, whose closest relatives are found in South, Central and North America, and in one case perhaps even Africa. However, the phylogenetic relationships of the majority of endemic species have not been investigated in detail, hampering inferences about their evolution and historical biogeography. To remedy this situation, we made a collecting trip to the Dominican Republic (DR, the eastern half of Hispaniola, the western being Haiti) from November 3 to 16, 2006. Not much collecting and observing has been done in the month of November, and so we decided to report the findings of our trip here.

We were most interested in collecting as many of the endemic nymphalid species as possible, and thus our focus is on this family, with only occasional observations of species in other families. Our itinerary was planned and executed by Kelvin Guerrero, a local biologist with a good knowledge of the local Lepidoptera and Coleoptera fauna. In short, Kelvin picked us up in his four wheel drive and drove us around DR for almost two weeks, targeting the species we wanted, and he did so successfully! Kelvin also helped us organize the collecting and export permits, making our trip fully legitimate scientifically.

Our flight landed in Puerto Plata on the northern coast of DR, where we spent the night in a nice hotel. In fact throughout our stay the hotels were of acceptable to nice standard, usually with hot water (not really needed!), air conditioning (needed!) and a price range of USD 30-40 for a double room. The next morning we decided to get some collecting done before Kelvin picked us up, and walked down to Playa Long Beach. In the scrub behind the beach, we found lots of *Agraulis vanillae*, several *Calisto pulchella pulchella*, *Calisto obscura* (our first endemics!), *Anartia jatrophae* and *Danaus plexippus megalippe*. In addition, there were many skippers and pierids flying about, including *Phoebis sennae* and *Eurema* sp. Our running around after butterflies understandably awoke the interest of locals, but after a brief question, we were allowed to pursue our perhaps eccentric behavior (in their eyes) without further hassles. This we found throughout our trip, the people of DR are very friendly, honest and let you go about your own business without bothering you.

We met Kelvin for lunch and he laid out his plan for us, first to the Central Cordillera, then to the southwest of DR and, time permitting, to the southeast of DR. This sounded eminently suitable to us, and so we headed off to Jarabacoa up in the Central Cordillera. Driving in DR is harrowing to say the least, especially in cities. We were glad that we had somebody familiar with local ways (indeed driving in the local way!) at the wheel. The roads in general are in good condition, but there are surprising pot holes and, occasionally, unexpected road bumps as well as traffic driving at wildly different speeds. We did survive the trip without any dangerous situations, but probably because we did not drive!

Parque Nacional Armando Bermúdez

After spending the night at Jarabacoa, we headed up the mountains to the Parque Nacional Armando Bermúdez near the town of Manabao. Our aim was to take the trail leading to the highest peak in the Caribbean (Pico Duarte at 3175 m) and walk a few kilometers along it to see what was flying around. The trail starts at the village of La Ciénaga, where there is a park ranger's office. We headed off just as the sun was beginning to warm up the landscape and immediately noticed that *Calisto pulchella darlingtoni* was very common in the undergrowth (see photograph on page 37). Also common around any wet area was *Anartia lytrea*, another endemic to Hispaniola. In the open areas on the edges of the forest, we found *Dryas iulia* and a selection of pierids such as *Kricogonia lyside* and *Melete salacia*. The endemic papilionid *Heraclides* was relatively common.

The most interesting habitat here was however the forest, a wet deciduous forest mixed with some pines on the steeper slopes. Within the forest we began to see more of the endemics. Many small *Calistos* flew in the undergrowth, most likely *Calisto obscura*, as well as two specimens of *Calisto galii*. *Lycorea halia cleobaea* was relatively common in the forest, as was the similar looking, but smaller *Dismorphia spio*. As we came to an opening in the forest, we saw a flash of orange that turned out to be *Hypanartia paullus* (endemic to the Greater Antilles), the only one we saw during the whole trip! A few acrobatic jumps and it was bagged in the name of science. Returning to the forest, we saw something fluttering in the shadows, which turned out to be *Greta diaphanus*. They were quite common in the deep shade of the forest. Two more exciting danaines turned up, one specimen each of *Anetia jaegeri* and *Anetia briarea*. One more endemic species crowned the day, a pair of

Adelpha gelania were caught in copula. Several more were seen in flight in the canopy. One species eluded capture, *Archaeoprepona demophoon* stayed high in the canopy, out of our reach. As we walked from La Ciénaga to Manabao, we saw a *Danaus plexippus* and some *Anartia jatrophae* flying around.

After another night in Jarabacoa (in the ominously named Hotel California), we headed off to La Montaña, a favorite collecting site of previous visitors to the island. The hotel that used to be here was abandoned and the gardens were overgrown. This was perhaps good for the butterflies, and indeed there were many *Dryas iulia*, *Heliconius charithonia*, and *Calisto confusa* flying about. In the forest we saw a *Colobura dirce wolcotti*, which however eluded capture. Our primary reason to stop here was to search for the rare *Atlantea cryptadia*, collected by Kelvin at the same site some ten years ago, but it did not show itself, if indeed it occurred there anymore. Also here a fast *Archaeoprepona demophoon* flashed past, without being caught.

Our next destination was the extreme southwest town of Pedernales, which we headed for after a night in Santo Domingo. The vegetation changed from wet, luxurious to dry and desertlike as we proceeded towards Baharona. Along the coast between Baharona and Enriquillo, the vegetation was again luxurious, but a stop to collect in San Rafael did not yield anything new. *Dryas iulia*, *Heliconius charithonia* and a small *Calisto* flew in numbers, as did *Battus polydamas*. A possible *Historis odius* was seen high in the cecropia trees. Another stop by a stream in Paraíso yielded only *Heraclides* and *Phoebis philea*, as well as the ubiquitous *H. charithonia* and *D. iulia*.

We reached the edge of Parque Nacional Jaragua after midday and things looked a lot more promising. There had obviously been some rain in this dry Acacia scrub recently and there were loads of *Phoebis sennae* flying across the road. We drove to the park rangers hut east of the town Oviedo, where we left the car to search for butterflies. It did not take long to discover that the scrub was teeming with other insect life including a small voracious mosquito! One has to suffer for science, and we did so for the next couple of hours in the scorching heat, but it was worth it. There were several new species flying around, including *Hamadryas amphichloe diasia*, *Lucinia cadma torrebia* (a biblidine genus endemic to the Greater Antilles), *Siproeta stelenes*, a small *Calisto* (possibly *C. batesi*), many *Anartia jatrophae*, *Protographium zonaria* (2 individuals), *Heraclides machaonides*, as well as the ubiquitous *H. charithonia* and *D. iulia*. However, we did not find the endemic genus and species *Archimestra teleboas*, one of the most wanted species of our trip. A short stop at a site where Kelvin had seen *Archimestra* one month earlier only turned up another *Lucinia* as well as *Anaea t. troglodyta*.

After the night in Pedernales, a small town on the border with Haiti, we returned to the *Archimestra* site in the morning. The sun was still shining when we spotted an *Archimestra* sunning itself, although amidst some mean looking cacti, it was still flying! Niklas desperately tried to pursue it into the cacti and as a result was attacked by a nasty barb-spined cactus, while the *Archimestra* gently flew further into the thicket. Not long after, an ominous dark grey cloud covered the sun and it began to drizzle, not good butterfly weather. With heavy hearts we headed for the coast to Cabo Rojo, where *Archimestra* has been recorded earlier. Here we headed into Parque Nacional Jaragua once more from the fishing village of Las Cuevas, into very desertlike conditions, with lots of cacti and sharp limestone rocks on the ground. The weather was partly cloudy and not much was flying about. One *Lucinia* evaded capture. In a seeming signal of despair, Carlos proceeded to knock the vegetation with his net in order to see if any butterflies would take flight. None did, but a strange larva dropped into the net at some point. It turned out to be a *Lucinia*, for which the larva was unknown. The morphology of the larva suggests that it should be placed in the tribe Callicorini, rather than its current Epicalini, and DNA sequences are confirming that. Unfortunately we do not know from which plant it dropped. We searched several bushes for larvae and found several larvae of *Anaea troglodyta* feeding on *Melochia tomentosa* (Sterculiaceae). The larvae were within shelters made of host plant leaves stuck together with silk.

Archimestra, at last!

The weather cleared up and we headed back to the *Archimestra* site, this time we had success! Two specimens were caught and the day was saved. A quick visit to the park entrance near Oviedo did not yield anything new except a *Heraclides aristodemus*. We celebrated the day's catch by taking our first swim in the Caribbean Sea, only to have to run after the net when a *Lucinia* flew by.

The next day we took the road from Cabo Rojo up into the mountains to the Parque Nacional Sierra de Bahoruco. It should have been a pleasant day, but both of us had eaten a large dish of lambí (conch) the previous evening, and our stomachs were protesting. Nevertheless, we managed to get up to the pine forests at about 1400 m. It was crystal clear and dead quiet as the first *Calisto* were waking up. Here we found *Calisto schwarzi* in good numbers as well as a small *Calisto* (possibly *C. confusa*). In addition, there were a few *Danaus plexippus*, *Danaus gilippus*, *Anetia briarea*, *Vanessa virginiensis* and *Junonia evarete* flying around. After some hours we descended to the transition zone between pine and deciduous forest where *Anartia jatrophae* and *Junonia evarete* were plentiful. Also *Dryas iulia* and *Heliconius charithonia* were in evidence, but *Calisto* were very scarce. We continued down the road to where the forest was entirely deciduous, by

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Sojourn...*continued from pp. 13*

this time our energy was flagging and the stomach pains were increasing. Still we persevered and were rewarded with the third endemic *Anetia* species, *A. pantheratus*! Soon after, we got the second prize of the morning, the *Dynamine serina zetes*. A quick stop at the old bauxite mining site of Las Mercedes yielded nothing but a single *Calisto*, and we decided to head straight for Barahona (a three hour ride) to recuperate. It was a long ride but towards the evening our stomachs returned to normal, a big relief as it meant we were not hit by anything more serious than a small bout of tourist stomach-upset!

The next morning we left for a long ride to Parque Nacional del Este in the far southeastern corner of DR. Along the way, we stopped at Hatillo in the province of Azua, an area of dry *Acacia* scrub. It was quite hot and humid as we left the car to see what was flying. Lots of *Anaea troglodyta* flitting around as well as *Agraulis vanillae*. We found many larvae of *Junonia evarete* feeding on *Bouchea prismatica* (Verbenaceae), a new host for this species. In one area there were many *Euptoieta hegesia* flying, the first time we saw this species during the trip. We spotted an *Anthanassa frisia frisia* amongst the thorn scrub, one of our target species, but it stayed out of range. Niklas risked being attacked by thorny vegetation again, but to no avail. The species remained elusive.

We stayed several nights in the small village of Bayahibe close to the Parque Nacional del Este and spent one day on the eastern side of the park (Boca de Yuma) and one day on the western side (Guaraguao). Boca de Yuma was full of *Junonia evarete* and possibly *J. genoveva*, as well as the occassional *Hypolimnas misippus*, *Agraulis vanillae*, *Heliconius charithonia*, *Dryas iulia* and *Anartia jatrophae*. We took the trail from the park entrance in great expectation, and our expectations were not let down. Four individuals of *Antillea pelops* see photograph on page 37), several *Eunica monima*, several small *Calisto*, a couple of *Marpesia eleuchea* and an old ragged female *Asterocampa idyja* made the visit worth it! To top it off, we stopped at the recently found colony of *Calisto lyceius*, previously thought to occur only on the islands of Saona and Catalina, and found it quite abundant in the grassy tussocks, hiding from the hard wind off the sea. Kelvin found a *Historis odius* as we searched for *Calisto*.

Our trip was nearing its end, we had gotten most of our target species. Only one important species was missing, the endemic *Libytheana terena*. We spent the next morning on the western side of the park, where Kelvin said *L. terena* has occassionally been common. Lo and behold, after walking some hundreds of meters, there it was! A single individual, but enough for our purposes. In addition there were several small *Calisto*, a *Hypolimnas misippus*, *Papilio demoleus*, *Marpesia eleuchea* and *Dryas iulia*. Our aims were fulfilled in a little over a week, due to the detailed knowledge of our guide Kelvin. We had little to do other than head for Santo Domingo to get the export permits for the collected specimens, and then spend a couple of well-earned days on the beach, enjoying cold Bohemia beer to the rhythm of Bachata.

In summary, we can certainly recommend the services of Kelvin Guerrero (***kaguerrero@hotmail.com***, http://www.geocities.com/cerambycido) for anybody planning a trip to the Dominican Republic, either to collect or just watch butterflies, beetles and/or birds. He has his price for his services, but we found it to be entirely reasonable.

We would like to thank the Swedish Research Council for funding our trip to the Dominican Republic and Ricardo Garcia for help in identifying the host plants of the larvae we found.

Table I

Species	Locality
Nymphalidae	
Libytheana terena	P. N. del Este, La Altagracia (1)
Danaus plexippus megalippe	Puerto Plata (common); P. N. Armando Bermudéz, La Vega (1); P. N. Sierra de Bahuroco, Pedernales (common); P. N. del Este, La Altagracia (several)
Danaus gilippus	P. N. Jaragua, Pedernales (2); P. N. Sierra de Bahuroco, Pedernales (several); Hatillo, Azua (several)
Lycorea halia cleobaea	P. N. Armando Bermudéz, La Vega (common); San Rafael, Barahona (1)
Anetia jaegeri	P. N. Armando Bermudéz, La Vega (1)
Anetia briarea	P. N. Armando Bermudéz, La Vega (1); P. N. Sierra de Bahuroco, Pedernales (3)
Anetia pantheratus	P. N. Sierra de Bahuroco, Pedernales (1)
Greta diaphanus charadra	P. N. Armando Bermudéz, La Vega (common)
Calisto pulchella pulchella	Puerto Plata (2)
Calisto pulchella darlingtoni	P. N. Armando Bermudéz, La Vega (common)
Calisto galii	P. N. Armando Bermudéz, La Vega (2)
Calisto obscura	Puerto Plata (common); P. N. Armando Bermudéz, La Vega (common); P. N. Sierra de Bahuroco, Pedernales (common)
Calisto confusa	Jarabacoa, La Vega (common); P. N. Jaragua, Pedernales (common)
Calisto lyceius	P. N. del Este, La Altagracia (many)
Calisto batesi	P. N. del Este, La Altagracia (common)

Anaea troglodyta troglodyta	P. N. Jaragua, Pedernales (several); P. N. Sierra de Bahuroco, Pedernales (1); Hatillo, Azua (common); P. N. del Este, La Altagracia (2)
Euptoieta hegesia	Hatillo, Azua (common); P. N. del Este, La Altagracia (1)
Dryas iulia hispaniola	P. N. Armando Bermudéz, La Vega (common); P. N. Jaragua, Pedernales (common); P. N. Sierra de Bahuroco, Pedernales (common); Hatillo, Azua (common); P. N. del Este, La Altagracia (3)
Agraulis vanillae insularis	Puerto Plata (common); Hatillo, Azua (common); P. N. del Este, La Altagracia (common)
Heliconius charithonia churchi	La Montaña, Jarabacoa, La Vega (common); P. N. Jaragua, Pedernales (common); P. N. Sierra de Bahuroco, Pedernales (common); P. N. del Este, La Altagracia (common)
Adelpha gelania gelania	P. N. Armando Bermudéz, La Vega (5)
Marpesia eleuchea dospassosi	P. N. del Este, La Altagracia (4)
Hamadryas amphichloe diasia	P. N. Jaragua, Pedernales (3); P. N. del Este, La Altagracia (common)
Dynamine serina zetes	P. N. Sierra de Bahuroco, Pedernales (1)
Archimestra teleboas	P. N. Jaragua, Pedernales (3)
Lucinia cadma torrebia	P. N. Jaragua, Pedernales (6)
Eunica monima	P. N. del Este, La Altagracia (common)
Asterocampa idyja	P. N. del Este, La Altagracia (1)
Historis odius odius	P. N. del Este, La Altagracia (1)
Colobura dirce	La Montaña, Jarabacoa, La Vega (1)
Vanessa virginiensis	P. N. Sierra de Bahuroco, Pedernales (several)
Hypanartia paullus	P. N. Armando Bermudéz, La Vega (1)
Anartia jatrophae	Puerto Plata (1); P. N. Armando Bermudéz, La Vega (several); P. N. Jaragua, Pedernales (common); P. N. Sierra de Bahuroco, Pedernales (common); P. N. del Este, La Altagracia (common)
Anartia lytrea	P. N. Armando Bermudéz, La Vega (common)
Siproeta stelenes	P. N. Armando Bermudéz, La Vega (1); P. N. Jaragua, Pedernales (2); P. N. del Este, La Altagracia (1)
Hypolimnas misippus	P. N. del Este, La Altagracia (5)
Junonia genoveva	P. N. del Este, La Altagracia (several)
Junonia evarete	P. N. Sierra de Bahuroco, Pedernales (common); Hatillo, Azua (several); P. N. del Este, La Altagracia (common)
Antillea pelops	P. N. del Este, La Altagracia (4)
Anthanassa frisia frisia	Hatillo, Azua (1)

Lycaenidae

Chlorostrymon simaethis	P. N. Jaragua, Pedernales (2)
Ministrymon azia	San Rafael, Baharona (1); P. N. Sierra de Bahuroco, Pedernales (1)
Leptotes cassius	San Rafael, Baharona (1)
Cyclargus thomasi	P. N. Jaragua, Pedernales (1); P. N. del Este, La Altagracia (1)
Hemiargus hanno	Hatillo, Azua (1); La Montaña, Jarabacoa, La Vega (1)
Strymon columella	P. N. Jaragua, Pedernales (1); P. N. Sierra de Bahuroco, Pedernales (2)
Elektrostrymon angelia	Puerto Plata (1)

Pieridae

Dismorphia spio	P. N. Armando Bermudéz, La Vega (common); P. N. Sierra de Bahuroco, Pedernales (several)
Melete salacia	P. N. Armando Bermudéz, La Vega (1)
Kricogonia lyside	P. N. Armando Bermudéz, La Vega (1); Paraíso, Baharona (1)
Appias drusilla	P. N. Jaragua, Pedernales (1)
Anteos chlorinde	Paraíso, Baharona (several)
Phoebis philea	P. N. Armando Bermudéz, La Vega (common); Paraíso, Barahona (several)
Phoebis sennae	Puerto Plata (several); P. N. Armando Bermudéz, La Vega (several); P. N. Jaragua, Pedernales (common); P. N. Sierra de Bahuroco, Pedernales (common); P. N. del Este, La Altagracia (common)
Eurema spp. (at least 7 spp.)	Puerto Plata (common); P. N. Armando Bermudéz, La Vega (several); P. N. Jaragua, Pedernales (common); P. N. Sierra de Bahuroco, Pedernales (common); P. N. del Este, La Altagracia (common)
Aphrissa godartiana	P. N. Jaragua, Pedernales (1)

Papilionidae

Battus polydamas	San Rafael, Baharona (several)
Protographium zonarius	P. N. Jaragua, Pedernales (2)
Papilio demoleus	P. N. Jaragua, Pedernales (several); Hatillo, Azua (several); P. N. del Este, La Altagracia (several)
Heraclides aristodemus	P. N. Jaragua, Pedernales (1)
Heraclides machaonides	P. N. Armando Bermudéz, La Vega (several); P. N. Jaragua, Pedernales (several); P. N. Sierra de Bahuroco, Pedernales (several); P. N. del Este, La Altagracia (several)

Edmund Selous And The Wisdom Of The Great Morpho Butterfly

Arthur M. Shapiro

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When it comes to the morality of collecting, it seems very little has changed in a century.

Edmund Selous (1857-1934) is largely forgotten, except among birders and professional animal behaviorists. Perhaps Britain's most accomplished amateur ornithologist, he literally wrote the book on bird watching: it was called "Bird Watching" (1901). His father was a stockbroker who later became Chairman of the Board of the London Stock Exchange. His mother was an amateur naturalist in the Victorian style. Edmund read law at Cambridge, intending a career as a barrister, but was much more interested in studying birds. While his older brother Frederick (1851-1917) became famous as a big-game hunter and explorer in southern Africa, Edmund went in a very different direction. He developed an intense distaste for hunting and killing. Whether this was related to his brother's career can be left to psychologists. Fundamentally shy and introverted, he nonetheless made many and powerful enemies in the British ornithological community with his strident denunciations of shooting and egg-collecting; he blasted his contemporaries for what he called their fascination with "killing birds and staring at their dried skins." There was virtual unanimity as to his skills as a detailed observer of bird behavior, even if his tendency to romanticize and sentimentalize his observations was grating to many; but it was his lack of perceived collegiality that led to his being dropped as a contributor to F.B. Kirkman's monograph "British Birds." Later in life he, like many other late Victorians including the evolutionist and biogeographer Alfred Russel Wallace, became fascinated with alleged paranormal phenomena. The Society for Psychical Research, founded in 1882, sought to investigate such phenomena with scientific rigor and enlisted many of the creative minds of the age. Selous thought he could see evidence of telepathic communication in the behavior of flocking birds, and after years of painstaking field study, he published "Thought Transference (or What?) in Birds" in 1931. Although many of the phenomena he described remain unexplained to this day, hard-headed scientists dismissed this work as the blatherings of an old fool. Yet Selous has found respect at last among the professionals: he is the first bird behaviorist credited with studying and recognizing the importance of differences among individuals, and the first to provide detailed and convincing evidence for female choice, a critical element in Darwin's concept of sexual selection. No less a figure than David Lack, the monographer of Darwin's Finches, praised Selous' insights a quarter-century after his death.

But he is also remembered in the animal-rights movement, especially in England.

Selous was a member of the Humanitarian League, an umbrella for all kinds of reformers, led by Henry Salt, a master at Eton. Members of the League, which was active from 1891 to 1919, campaigned for animal rights, children's rights, prison reform, vegetarianism, socialism, the abolition of war and capital punishment and of blood sports such as fox-hunting, and the regulation or abolition of animal research—among other things. Selous opposed laboratory studies of birds on the ground that they were all individuals with distinct states of mind. The only difference between the League's agenda in 1900 and the agendas of contemporary reformers is that at least a few of the League's goals were actually achieved; conspicuous among them the outlawing of most bird-shooting and egging, and (only last year!) of fox-hunting.

Selous extended his anti-killing activities into the realm of entomology. In 1910 he first published "Jack's Insects," a work of juvenile fiction that constitutes the world's most aggressive and sweeping condemnation of insect collecting. There is not a position articulated by anti-collecting activists today that cannot be found explicit in this very didactic work, which does not acknowledge any valid justification for collecting in the modern era.

Little Jack has been given a book of insect natural history for his birthday. He wants to collect butterflies and has a net. His sister Maggie tries to dissuade him on moral grounds.

"'But that's entomology, you know, Maggie,' said Jack.

"I think it's cruelty,' said Maggie...

"...to catch them in a net, properly, and put them in a killing-bottle without hurting them—I mean without rubbing their wings—and then pin them out on cork, with their Latin names underneath them, that isn't, because—because it's important, you know.'

"'Important!' cried Maggie. 'Oh, Jack, how can it be?'

"'...There's setting them, and arranging them by families, and finding out about their habits in books...'

The argument goes on until the children drift off into sleep—and find themselves somehow inside the book of insect natural history—deep inside, in a tropical jungle, where they promptly

meet a Great Morpho Butterfly much bigger than they are. They have, in fact, been reduced to roughly the size of an ant.

"'So you want to kill me, do you, you little insignificant wretch?' said the Morpho Butterfly....'And why, pray, should you ever want to kill me?'

"'Please, Mr. Butterfly,' said Jack—he was rather nervous, but felt it was a good reason—"it's because you're so handsome.'

"...'People who wish to admire my beauty should come and see it where it is most worth seeing, and when they have seen it, they should leave it for other people to see...not steal it and take it away with them, and put it somewhere where it doesn't look beautiful any more, and so is only wasted. To take a butterfly that was alive and flying about, out of its woods and fields, and kill it, and put it into a box or a cabinet, is just the same as to take pictures off the walls of rooms and hang them on trees and hedges.'"

Jack protests that most people cannot go into the wilds to see nature, and must do so in museums. The Great Morpho will have none of it: "'Everybody really capable of appreciating me would much rather think of me alive and flying about than see me dead, with a pin through my body. Oh dear! People who can enjoy seeing butterflies in that way must be silly and cruel both.'" And then he drops a bombshell. "'...if people keep on killing me and putting me into drawers and boxes, mark my words...there will soon be no more Great Morpho Butterflies to stick pins through....We shall have disappeared as a living species, and the world will have to get on without us.'"

The Morpho then shows Jack the forest as it was before people began collecting – there is an explicit reference to collecting for profit – and as it would be with all the butterflies gone.

Jack agrees that this would be very sad, but that at least knowledge of butterflies' lives would be preserved in books. The Morpho will have none of that either. "'Good or bad, they [the books] generally turn out to be wrong – or at any rate, not quite right—every ten years or so, and sometimes a great deal sooner. Perhaps a very good one may go on being right for a year or two longer, but such cases are exceptional.'" He then argues that if butterflies are exterminated, it will become impossible to learn the truth about them:

"'...if the sham entomologists – for that's what I call them – keep killing all the beautiful and interesting insects that there are, it will get more and more difficult for the real entomologists to study their habits....whenever you have killed any insect and stuck a pin through it, you have been a sham entomologist. But you can't do that here, you know...'" that is, inside the book. The Morpho promises to guide Jack and Maggie through the insect world as real entomologists, if they will forswear collecting. They do, and off they go through the book, meeting not only butterflies but beetles, cicadas, katydids and ants on a personal basis for the next 350 pages. (The book actually seems to be Selous' own "The Romance of Insect Life," similarly organized, published in 1914 in the Library of Romance series.)

Eventually, of course they wake up from their dream. The book concludes: "From that time, and all through his life, Jack hardly ever killed an insect – only in quite exceptional cases, and never to make a collection. Instead of that he used to watch what they did, and he soon found that to watch one interesting one alive was better than to see hundreds and hundreds of them, dead. It was the habits of insects, now, that he was interested in, and it was quite true, he found, what the Great Morpho Butterfly had once told him, that when they were dead they had no habits."

Metamorphosis...

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

Bouseman, John K.

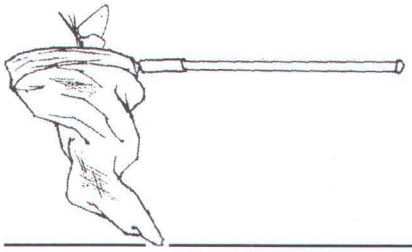
of the Illinois Natural History Survey, Champaign, Illinois, U.S.A., on 13 May 2006. Mr. Bouseman had been a member of the Society since 1993.

Hellebuyck, Victor J.

of Sherbrooke, Quebec, Canada, in February 2006. Victor had been a member of the Society since 1996.

Stallings, Viola N.

of Wichita, Kansas, on 14 January 1998 [sic!—Notification not received until 18 January 2007.] She first joined the Society in 1985, and became a Life Member in 1995. She was the first Honorary Life Member of the Idalia Society, which published her obituary in their Newsletter, Vol. 10, No. 6, pp. 2-4. [Information submitted by Ron Huber, to whom we are grateful.]



Mailbag...

Letter to the Editor:

Having spent a good many of years in the 1990s and early 2000s conducting research on the Diana fritillary butterfly and calling public attention to the species and its life history, I am always delighted to read the results of research conducted by others on that species. Case in point: "The Diana Fritillary (*Speyeria diana*) and Great Spangled Fritillary (*S. cybele*): Dependence on Fire in the Ouachita Mountains of Arkansas" by D. C. Rudolph, C.A. Ely, R.R. Schaefer, J.H. Williamson, and R.E. Thill (J. Lep. Soc., Dec. 14, 2006, Vol. 60, No. 4, pages 218-226). While the quantitative data were significant, the authors seem to have been unaware of previous research on the same species resulting in similar conclusions. Specifically, I would like to point out the following references—all of which are relevant to some degree but which were not acknowledged:

Ross, G.N. 1997. Preliminary inventory of the butterflies of Coweeta Hydrologic Laboratory, Nantahala National Forest, North Carolina. News Lep. Soc., Autumn (Vol. 39:4), pages 70-71, 88, cover.

Ross, G.N. 1998. Butterfly festivals: Fun and education for all. Am. Butt., Summer (Vol. 6:2), pages 16-23, cover.

Ross, G.N. 1998. Definitive destination: Mount Magazine State Park, Arkansas. Am. Butt., Summer (Vol. 6:2), pages 24-33.

Ross, G.N. 2001 (2005). Survey of the butterflies of the Wah'Kon-Tah Prairie, Missouri. Hol. Lepidop., March/Sept. (Vol. 8:1-2), pages 1-30.

Ross, G.N. 2003. What's for dinner? A new look at the role of phytochemicals in butterfly diets. News Lep. Soc., Autumn (Vol. 45:3), pages 83-89, 100, back cover.

Ross, G.N. and M.C. Henk. 2004. Notes on eggs and first instar larvae of three species of *Speyeria* (Nymphalidae). News Lep. Soc., Summer (Vol. 46:2), pages 53-57, 62-63.

Ross, G.N. 2005. A time to drink. News Lep. Soc., Winter (Vol. 47:4), pages 105, 107, 111.

Ross, G.N. 2005. Rain, rain, go away. Butt. Gardener, Special year edition (Vol. 10), pages 4-5.

As researchers we must constantly remind ourselves that our work is often built on the "shoulders of others" and that we must do our best to avail ourselves of past relevant publications. Furthermore, I am astounded that the reviewers and editors of the article in question failed to catch the omissions prior to publication, particularly since so much of my research was published by The Lepidopterists' Society. Pity!

Gary Noel Ross, Ph.D.
6095 Stratford Ave.
Baton Rouge, LA 70808-3531

Dear Dr. Ross -

I have received your letter calling attention to references you feel were neglected in the article in question. I think I understand your frustration, since you were the author of all the "neglected" references. However, as the editor in question I feel I must point out what my role was. I am responsible for finding competent reviewers, willing to thoroughly review articles. This is not an easy task, as most folks are very busy and this is a somewhat thankless burden (which, given the nature of your letter, will seem even more thankless now). I am also responsible for judging the scientific merit of the submissions. I am not responsible for finding potentially missing references - that burden falls squarely on the author(s) shoulders.

Given that, I can see how the authors and reviewers missed your references, as none of them appeared in the "scientific" literature. Perhaps the distinction between "scientific" and "popular" is artificial, but it is a distinction that is made. I also note that only one of your references specifically mentioned *Speyeria*, and that in a way that would not lend itself to discovery by the authors of this particular paper. It would be quite difficult for the authors to discover relevant information in your articles from a literature search. One reason we require authors to include key words is to allow search engines to discover important information. As an author, that is a point for you to keep in mind.

I am sorry that you felt your contributions were neglected.

Sincerely,

Michael E. Toliver, Ph.D.
Professor of Biology
Past Editor, Journal of the
Lepidopterists' Society
miketol@eureka.edu
309.467.6446

2007 Meeting of the Lepidopterists' Society
And Combined Pacific Slope Meeting
Downtown Holiday Inn Select (Marriott)
Bakersfield, California
July 12-15, 2007

You are invited to the 58th annual meeting of the Lepidopterists' Society, to be held at the Downtown Holiday Inn Select in Bakersfield, (which will have become a member of the Marriott family by the date of the meeting). The time has arrived to begin planning for your attendance in Bakersfield, a city noted for the country music atmosphere, the warm (hot-but it's a DRY heat) summers, and the collecting available east and south in the Sierra Nevada, Greenhorn, and Mount Pinos areas. The meeting will run from Thursday, July 12 (Executive Council Meeting and registration) through Sunday, July 15.

The tentative schedule will include Friday and Saturday formal presentations, on July 13 and 14. The poster displays will be at the same time in a room dedicated to that purpose. Thursday evening will include meeting at the hotel, in a location serving the public, for purposes of relaxing. Friday evening will include a steak barbecue at the California Living Museum, a living museum of plants and animals found in the Kern County area. Saturday evening will be devoted to the banquet at the hotel facility, and Sunday morning will be the final business meeting as well as the Pacific Slope planning meeting.

On Thursday, a field trip will be held into the Sierra Nevada range for photographing and collecting butterflies of the southern Sierra Nevada Mountains. A moth collecting trip to Mount Pinos Sunday night is also planned, and other trips may be scheduled as guides become available. In addition, educational workshops will be planned, if possible, in conjunction with the Kern County Superintendent of Schools at their facilities only blocks away.

The collection of Kelly Richers will be available at the hotel for research and specimen comparisons for those interested in viewing the butterflies and moths of the local area.

Registration information and further updates will be available on the Lepidopterists' Society website (**www.lepsoc.org**) and also on the following pages of this issue of the News, as well as in future issues of the News until the registration deadline of June 10, 2007.

Rooms have been reserved at the Downtown Holiday Inn Select with a special rate. It is suggested that this facility be utilized.

Transportation and walking in Bakersfield in July can be a rather warm experience. Temperatures can reach over 100° in the daytime, and extended walking is not advised, although the humidity is low. It is suggested that registrants should make room reservations as early as possible, and all room blocks reserved will be released prior to the date of the meeting. For those wishing to stay at other locations, consulting a Bakersfield website will give numerous other choices. These abound but not within walking distance.

Individuals interested in the formal program, with special needs, or needing local arrangements should contact the host, Kelly Richers at ***kerichers@wuesd.org*** or ***krichers@bak.rr.com***.

Local Arrangements:

Travel:

The Holiday Inn Select Downtown Bakersfield is located 116 miles NNW of Los Angeles International Airport, and 284 miles SSE of San Francisco. Bakersfield does have an excellent airport with a new state-of- the art facility located north of town, and a shuttle directly to and from the Holiday Inn Downtown. Please consider, if you are flying, to fly directly into Bakersfield and use the shuttle service. Rental car services and taxi services are located inside the terminal building. The airport web page is http://www.meadowsfield.com/ for those wishing access on the web.

For those driving, directions to the meeting site at the Holiday Inn Select Downtown Bakersfield are:

From the south, take Rt. 99 from I-5 into Bakersfield. Exit at California Avenue going to the right, or east. Immediately get in the left lane and turn left onto Oak Street going north onto the bridge over the railroad tracks. At the end of the bridge turn right onto Truxtun Avenue. The hotel is on the right side of Truxtun Avenue another mile and a half through

Registration

For the 2007 (58th) Meeting of the Lepidopterists' Society
And Combined Pacific Slope Meeting
Downtown Holiday Inn Select (Marriott)
Bakersfield, California
July 12-15, 2007

Last Name(1)_____ First Name _____ Initial_____

Last Name(2)_____ First Name _____ Initial_____

Last Name(3)_____ First Name _____ Initial_____

Mailing address: _____

City: _____ State/Province _____ Country _____ Postal Code _____

E-mail: _____ Phone ( ) _____

Institution or Affiliation on Name Tag _____

Staying at meeting hotel? (Make reservations separately) _____ Bus needed to Friday barbeque? _____

Registration Fee includes break snacks, program, and other registration materials.

Number of persons X $86.00 (Before June 10, 2007; after June 10, $96.00).....$_____

Number of students X $64.00 (Before June 10, 2007; after June 10, $74.00).....$_____

Bakersfield Steak Barbeque, Friday evening, includes dinner and drink(s) $22.00.....$_____

Special barbeque requirements? _____

Annual banquet includes tax, gratuity, and dinner. (BY JUNE 10) $25.00.....$_____

(Sautéed Breast of Chicken, Chardonnay Sauce, Salad, Vegetable, Rolls, Dessert, Coffee)

Special banquet requirements? _____

Persons participating in field trips will be responsible for their own meals, but these can be purchased through the hotel. There is no charge for the field trips.

Make check payable to Kelly Richers and mail to:

Kelly Richers, Lep Soc 2007, 9417 Carvalho Court, Bakersfield, CA 93311.

Cancellations after July 1 will result in a $25 cancellation fee; otherwise refunds will be in full if possible.

Field trip:

I would like to attend the butterfly field trip on Thursday, July 12. (Circle if) Yes

I would like to attend the moth field trip on Sunday, July 15. (Circle if) Yes

Liability Release:

I release the Lepidopterists' Society, Kelly Richers and the field trip leaders from any liability that may result from my participation in field trips associated with the 2007 meeting of the above society at Bakersfield California. I understand that I may be driven in a private vehicle and that there are potential hazards on any field trip. I assume all responsibility, personal and financial, for any accidents or other personal injury or loss on any field trip in which I participate.

Name (Printed) _____ Date _____

Signature _____

Call for Contributed Papers

2007 Meeting of the Lepidopterists' Society
And Combined Pacific Slope Meeting
Downtown Holiday Inn Select (Marriott)
Bakersfield, California
July 12-15, 2007

Name: _____

Address _____

Phone (day) _____ (night) _____

Fax: _____ e-mail: _____

Please check: Poster ____ Student Paper ____ Powerpoint ____ 35mm slide projector ____

Please type both title and abstract, and limit the abstract to 125 words or less.

Title:

Abstract:

Due to limited time only one contributed paper presentation may be submitted per person. Each contributed paper is limited to a total of 15 minutes, it is anticipated at this time. (12 minutes for the formal presentation and 3 minutes for questions.) The deadline for contributed papers is **June 10, 2007**.

This completed form, or an e-mailed copy, must be received by the deadline for inclusion in the printed program. To expedite this process, please e-mail a Word or other PC based file of your title/abstract to: Kelly Richers at ***kerichers@wuesd.org*** or ***krichers@bak.rr.com***. The address for mailing the completed form is:

Kelly Richers, Lep Soc 2007, 9417 Carvalho Court, Bakersfield, CA 93311.

Contributed papers are scheduled for Friday, July 13, and Saturday, July 14, 2007. There will be a preliminary schedule available on the LepSoc website by June 25. 2007. All contributed papers will be presented at the meeting site, the Holiday Inn Select Downtown, Bakersfield California. Posters will be set up in a separate room. Any special presentation materials needed, please note on this paper in advance of the meeting.

Local Arrangements...*continued from pp. 111*

downtown, immediately past the Rabobank Arena. If you pass the train station you have gone one block too far.

From the north, take I-5 to the Rosedale Highway (Rt. 58) exit. Go east. Eventually, after about 20 miles, you will come into town through the most heavily used road in the city. Rush hour may take quite some time this way. Immediately after crossing under Rt. 99, turn right onto Oak Street. Four blocks ahead, just before the bridge over the railroad tracks looming in front of you, turn left onto Truxtun Avenue. See the last two sentences above. If you are arriving on Rt. 99 itself from the north (Sacramento or Fresno areas) get off of Rt. 99 at Rosedale Highway, go left under Rt. 99 and follow the instructions above for turning onto Oak Street from I-5.

From the east, take Rt. 58 into Bakersfield from Tehachapi, Mojave or whichever point east is your start point. Once in Bakersfield, take the Chester Exit north to Truxtun Avenue. Immediately after passing under the railroad crossing bridge, turn right (east) onto Truxtun Avenue. The hotel is four blocks east on Truxtun on the right hand side.

From the west, you probably end up on I-5 or Rt. 99 north or south of town. Follow the directions from either of those locations as given above when you arrive on one of those two roads, as you will be either north or south of town. No roads from the coast go directly to town.

One very attractive option might be arriving by train. The Amtrak station is less than one block from the hotel, and a shuttle is available for those arriving by train. The San Joaquin Valley route has many access points from both the Bay Area and Sacramento, connecting to other points in the nation. Check Amtrak's web site for information.

Housing and Food:

75 rooms have been set aside at the Holiday Inn Select Downtown for the meeting at a very attractive price. Mention the Lepidopterists' Society when making reservations. Make your reservations by telephone. The telephone number is (661) 323-1900, ask for in-house reservations and refer to the Lepidopterists' Society meeting. The website for the hotel is but use this for reference only, as the website cannot give the discounted price. Our contact at the hotel is Terra Lopez, if there is a need to contact her for any reason. The physical address of the hotel is 801 Truxtun Avenue, Bakersfield CA 93301. There is ample parking behind the hotel for all participants. Your registration fee covers only the attendance at the meetings, and whichever meals you have paid separately. The hotel has restaurants and a bar. Downtown Bakersfield has many smaller restaurants and coffee shops within walking distance of the meeting site. The cut-off date for guaranteed room reservations at the special price of $79.00 (extras not added) for a single or double is June 13, 2007. Additional persons are $10 each. There are two deluxe parlor suites set aside at the rate of $150.00 nightly for whoever reserves them first.

Campgrounds:

Bakersfield is a city of 250,000, and there is no campground within the city limits appropriate for the meeting. However, in the Kern River Canyon, to the east, there are many campsites within less than an hour's drive. Richbar, Miracle Hot Springs and others in the lower Kern River Canyon are possibilities for the camper. Use search words 'Kern River Camping' on the internet search engines to locate specific upper and lower Kern River campsites.

Field trips:

Field trips are planned for butterfly observation and collecting on Thursday, July 12, and any other dates that guides are available. The Thursday trip will be to the Greenhorn Mountains and Sierra Nevada Mountains at elevations higher up where Speyeria and other species abound. There will be a post meeting moth collecting trip on Sunday evening to Mount Pinos south of Bakersfield. More specific information about these and additional field trips will be posted on the Lep Soc website as details become available. Box lunches are available from the hotel at $12.00 each, but fast food restaurants abound on the way to collecting sites.

Local attractions:

Local attractions will be featured in the registration packets upon registration. Kern County and Bakersfield have too many to list here.

Collections:

Kelly Richers will have his collection available for viewing and research in a separate room with tables at the meeting. This collection will contain specimens of virtually all local Lepidoptera you are likely to encounter.

Why Not Publish the Membership Directory on CD?

John H. Masters

26503 Hillsfall Court, Newhall, CA 91321-2256 ***quest4tvl@aol.com***

The power of ink and paper may always remain, but it unlikely to exist on it's own in the future as cyber publication is becoming more and more mainstream. Since it is not always easy to convert publications to digital formats, The Lepidopterists' Society, for a variety of reasons, has not moved in this direction. However, we are simply falling further and further behind a digital world that we must eventually survive in.

In almost all organizations a small segment strongly opposes any change involving digital publication, and our Society is no exception. Although unfortunate, this real situation must be addressed by careful consideration before any change in format takes place. This also dictates that making any changes to cyber publication should be with slow and measured steps.

Another problem that must be faced is our Constitution. Our Constitution and By-Laws were written and adopted in 1950 at a time when there was absolutely no thought of a coming digital age in publishing. Although there have been several constitutional amendments over the years, the procedures to amend the constitution are time consuming and difficult. Provisions of the current Constitution, without amendment, prevent the more obvious changes to our current publications to a digital format.

The Membership Directory, however, would make a good starting point for joining the digital world. The sole reference to the Membership Directory in the Constitution is a final sentence in Section 2 of Article VIII (Publications). This sentence simply requires that "A list of members of the Society shall be issued at least every second year". Nothing is said about it being published in the NEWS or as a supplement to the NEWS, although it has been treated this way in the past.

For quite a few years membership directory requirement was met, very simply, by including an alphabetical list of members and their addresses in the NEWS in even numbered years. This required no more than three or four pages in the early issues of the NEWS. Over the years, however, the Membership Directory has grown considerably. Members were encouraged to list their particular interests alongside their names and addresses. Then it grew even larger when geographical and member interest indexes were added. The latest (2004) Membership Directory is a rather large (82 page) publication that was issued as supplement 2 of the 2004 NEWS.

I am not suggesting on cutting back on the publication because I think it is quite excellent and a valuable resource for all members. Julian Donahue, who has served the Society in various capacities, including assistant secretary, over the last 30 years, has been primarily responsible for the publication of the DIRECTORY. The 2006 Membership Directory was Donahue's 15th. Certainly all Society members owe Julian a deep debt of gratitude; it is primarily his efforts that have made the Membership Directory such a valuable resource.

I do think that the Membership Directory should be the primary candidate for the Society's first move into the digital publication age. In format the Membership Directory could be a searchable PDF document on a CD. This would be relatively inexpensive both to publish and to mail (although this needs to be thoroughly investigated). Members wanting a hard copy, or portions of the DIRECTORY as a hard copy, could simply print it out as desired in their own format.

Changing the Membership Directory to a digital publication does not require a constitutional amendment. The easiest way for making the change would be by vote of the Executive Council. In my opinion the Membership Directory should become a standalone publication rather than a supplement to the NEWS. This change alone might be very important as the DIRECTORY could then be mailed exclusively to members and not to Institutional Subscribers or any others. Is there any justifiable reason for making the information in the Membership Directory available to nonmembers of the Society? I suspect that many members who object to having their names, addresses, phone numbers and/or e-mails published in the DIRECTORY are doing so because they don't want this information sitting on a library shelf where virtually anybody can access it. Another possible benefit of keeping the Membership Directory in the hands of members only is that it might reduce the potential problem of unauthorized commercial use.

Considerable cost savings could be expected from ink, paper and mailing costs alone. Cost savings is a driving factor for most publications that move to digital format. However, there are many other advantages. For instance using a digital format would allow additional enhancements to be made to the DIRECTORY, with very minor cost increases. As on example color codes could be employed to indicate membership classes, geographic regions, member interests as well as a variety of other things.

Continued on pp. 32

Lepidopterists' Society Election Results 2007

A total of 538 ballots, excluding those that were completely blank, were received by the stated deadline of January 15, 2007. Of those 538 ballots, 15 were deemed questionable. Results (votes received) are included for all ballots and excluding the 15 questionable ballots. Inclusion of the 15 questionable ballots has no significant effect on the election results. The names of the successful candidates are preceded with an asterisk (*) below and all candidates are listed with the number of votes received. Write-in votes were considered valid only for members in good standing of the Society.

PRESIDENT

	Excluding Questionable	All Ballots
* John H. Acorn	458	464
Write-in	*15*	*15*

VICE-PRESIDENTS

	Excluding Questionable	All Ballots
* Akito Kawahara (Japan & USA)	228	229
* John Lill (USA)	219	222
* Andre V.L. Freitas l (Brazil)	210	211
Lazaro Roque-Albelo (Ecuador)	190	190
Soren Nylin (Sweden)	185	186
Grant Kuseff (Australia)	138	153
Leo S. Urbanski (Spain)	132	147
Tomasso Racheli (Italy)	110	110
Write-in	*6*	*7*

EXECUTIVE COUNCIL MEMBERS-AT-LARGE

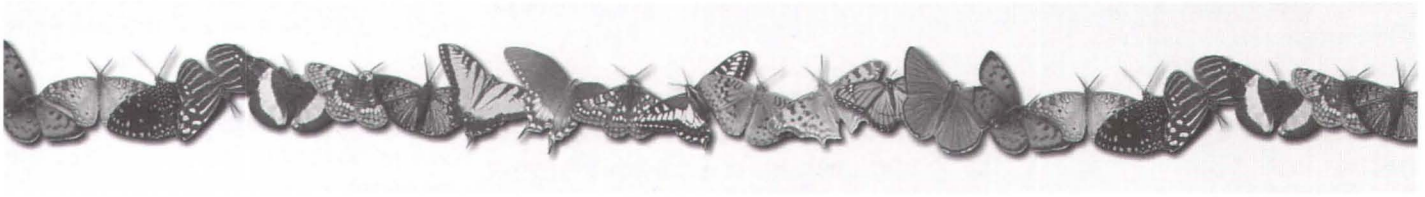
	Excluding Questionable	All Ballots
* Kenn Kaufman	234	234
*Harry Zirlin	189	204
*Kim Garwood	191	191
Stanley A. Gorodenski	174	189
Todd L. Stout	168	183
Michael A. Quinn	158	158
Chris Schmidt	139	139
Jadranka Rota	108	108
Donald A. Rolfs	93	93
Write-in	*6*	*6*

KARL JORDAN MEDAL REPRESENTATIVE

	Excluding Questionable	All Ballots
* Scott E. Miller	446	452
Write-in	*4*	*4*

As can be seen from the above results, the only effect of including the 15 questionable ballots was to alter the order, but not identity, of members elected to serve as Members-At-Large. The Secretary therefore recommends all ballots be counted for this election. He also recommends action be taken by the Executive and Membership to eliminate such problems in future elections.

Respectfully submitted, David D. Lawrie, Secretary March 11, 2007



A Hybrid Between *Polites peckius* and *Polites sabuleti* (Lepidoptera: Hesperiidae: Hesperiinae)

Andrew D. Warren

McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, P. O. Box 112710, Gainesville, FL 32611-2710 ***hesperioidea@yahoo.com***

Since 1998, I have been conducting an intermittent study of the Lepidoptera fauna of Douglas County, Colorado. The study began when my parents moved to a new home in Douglas County, in the Hidden Pointe development, roughly 8 miles NNW of Castle Rock, just west of Surrey Ridge (and I-25), at 6400' elevation. To date, about 1000 species of Lepidoptera have been recorded in the northeastern half of the county most intensively surveyed, including 108 species of butterflies from the Hidden Pointe area (Warren *et al.* in preparation). While the destruction of natural habitats in this county for residential and commercial developments over the past eight years has been truly depressing, as site after site is altered beyond recognition, annual changes in the local fauna have been interesting to observe.

From 1998 to 2001, *Polites peckius* (W. Kirby, 1837) was a scarce species in the region, with most records of single or small numbers of individuals. However, in 2002, *P. peckius* had a "big year" in Douglas County, and second-generation adults were found at nearly every site surveyed in August. It had become very abundant in the butterfly garden surrounding the Warren residence at Hidden Pointe, and 10-20 individuals could be seen during each stroll through the garden. On August 17th, I decided to take a random sample of the first six individuals of *P. peckius* I saw, regardless of their condition or sex, to document its abundance in the neighborhood that year. I did not hesitate to sample the second male I saw that appeared worn, in order to maintain "randomness" of the sample, which also included four fresh males and one recently eclosed female. Two nights later, after spreading a fresh male from this series (Figs. 1, 4, pp. 33), I spread the specimen that appeared worn when I collected it. This individual (Figs. 2, 5, pp. 33) was in fact fresh (it is missing one labial palpus which was probably knocked off in the net), but had very pale wing markings, above and below, which made it look worn outdoors. This specimen actually appeared intermediate towards *Polites sabuleti* (Boisduval, 1852), yet that species is extremely uncommon in eastern Colorado, and had never been recorded from Douglas County. It also resembled *Polites draco* (W. H. Edwards, 1871) in some respects, a univoltine species occurring at higher elevations to the west, but differed in various details of wing markings and shape, not to mention flight time and habitat. Thus, I concluded the specimen was most likely an aberration of *P. peckius*.

I did not think much more of this specimen until thirteen days later, on August 30th, when I found myself in an elaborate pursuit of what appeared to be a male *Polites sabuleti* in the garden, complete with a dash back to the house to get the net (no time to look for shoes), barking dogs next door, and several minutes of frantic searching before the specimen was relocated and secured (Figs. 3, 6, pp. 33). The very fresh condition of this individual suggested that it had recently eclosed, and was of local origin. Once the excitement of the new county record wore off, I realized that since at least one female *Polites sabuleti* had evidently passed through the neighborhood sometime earlier in the season (during its first annual brood in May or June), depositing eggs along the way, that the strange specimen from August 17th might actually be a hybrid between *P. peckius* and *P. sabuleti*. Comparison of the three males in figures 1-6 seems to support this hypothesis, since the apparent hybrid (Figs. 2, 5, pp. 33) is intermediate between the two putative parent species in essentially every detail of wing markings and shape. The genitalia of the hybrid have not yet been dissected, but will be figured at a later time; for now, all three figured specimens are housed in the private collection of the author, at Hidden Pointe (Castle Rock), Colorado.

While *Polites peckius* and *P. sabuleti* are sympatric or parapatric over a large portion of the Pacific Northwestern United States, *P. peckius* in that region is single brooded, and adults presumably have little or no opportunity for contact with those of *P. sabuleti*, whose two annual broods are sandwiched around the mid-summer flight of *P. peckius* (Guppy and Shepard 2001, Pyle 2002, Warren 2005). In eastern Colorado, where *Polites sabuleti* is at the extreme eastern edge of its range, *P. peckius* is at least double brooded, and the timing of broods corresponds with those of *P. sabuleti*. Thus, it appears that contact between adults of *P. peckius* and *P. sabuleti* is likely to occur only on the prairies of northeastern Colorado (where multivoltine *P. peckius* is at the western edge of its range), but because of the

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An Unusual Host for *Chlosyne sterope dorothyi*

Jacque Wolfe[1] and Jack Harry[2]

459 East 2700 South, Apt. 16, Salt Lake City, UTah 84115-3346[1]
47 San Rafael Court, West Jordan, Utah 84088-9508[2]

The type locality of *Chlosyne sterope dorothyi* was designated by Bauer as Burnt and Snake River Canyons, Oregon. The Burnt River flows into the Snake River near Huntington, Oregon. Wolfe has been north of Huntington as much as 20 miles, along the Snake River Road, looking for *Chrysothamnus viscidiflorus* in enough numbers to support a colony of *dorothyi*. The only area it was found numerous was at 4.3 miles north of Huntington near the Spring Recreation Area. The following locations at Conner Creek and Morgan Creek could reasonably be considered to be part of the type locality.

On four different Aprils Wolfe has searched many plants of *viscidiflorus* for post diapause larvae and has found none. Since the area receives sufficient moisture each season and the *C. sterope* flight is usually good, larvae should have been easily found. He could not figure out why there were never any larvae. He mentioned this to Andy Warren in December of 2005 and was informed that *dorothyi* had the biggest flight he had ever seen, for a checkerspot, last season. He also said that they were most numerous at Morgan Creek which is 12.6 miles north of Huntington, but also flew in very good numbers at Conner Creek, just a couple of miles farther north. While waiting with high hopes for a successful trip this spring, Jacque was wondering why he had not seen the *viscidiflorus* at these two locations, since the area had been searched in previous years.

Wolfe and Harry visited the area in April of 2006. The *viscidiflorus* near Spring Recreation area was searched first and only 2 larvae were found. Then we went to Conner Creek but no *viscidiflorus* was in sight. So Jack started up the south side searching and Jacque up the north side. As Wolfe left the road to get up on the hillside, he had to cross a barbed wire fence. There was enough space between the bottom strand and the ground, so he crawled under the wire. While in this prone position he spotted a third instar *sterope* larva only 2 or 3 feet away. There were a total of 5 larvae on that plant and 3 even larger ones on a plant a couple of feet away. Soon Jacque had found 32 larvae. There were dried flower stalks from last year, so it confirmed what Jacque expected, that the plant is an Asteraceae. The only live part of the plant was the basal leaves. The leaf shape and sheathed petioles caused us to think of *Rumex* before the flower stem is growing. The plant was quite scattered here, especially those growing on the steep road cut. The least accessible plants were those that contained the larvae. A little later Jack searched the north facing slope and reported that the plant was not there.

We decided to return to Morgan Creek. Upon parking the vehicle we could see that the plant was much more numerous here, as we had expected. There were many plants on the steep road cut and the semi-steep hillside. On the third plant that Jack checked there were 46 larvae. After an hour or so we had found 75 larvae at Morgan Creek and decided that was enough. We filled two 5 gallon pails with cut plant with which to rear the larvae at home. Refrigerated leaves stayed fresh for the two and a half weeks it took to rear the larvae. The larvae were collected on 15 April 2006.

On 27 May Jacque returned to Morgan Creek to collect females to obtain ova. The few females that were still flying were very worn and had very thin abdomens. Therefore Jacque thought that he could quickly find egg clusters. In less than an hour he found 8 eggs clusters and two clusters of larvae. Nine of the 10 egg and larvae clusters were on the basal leaves. The other cluster was on a leaf growing on the stem. The plants that we had pruned in April had fresh new basal leaves and 3 of the clusters were on this new growth. The females chose these even though they were growing in a relatively flat grassy area. The flower stalks of the host plant were 2.5 to 3 feet tall with one large bud and 2 or 3 smaller buds. Flower stalks were collected for the botanist to examine and a pail of host plant in case the already feeding larvae would not switch to another species. After 10 days of feeding they switched readily to *Aster engelmannii*. Otherwise, all the larvae were reared on *engelmannii*.

On 17 June Jacque returned to Morgan Creek to obtain a host plant, now with a complete flower, for identification. Jacque was fortunate to obtain a flower since the majority of plants still had buds. Michael Windom, the botanist at the Garrett Herbarium at the University of Utah Museum of Natural History, determined the plant to be *Pyrrocoma crocea*. Michael was excited as this is a tremendous range extension. The nearest states that it is known from are Utah and Wyoming. He believes that it is very likely a new variety and possibly might even be a new species. Michael contacted a

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A Tale of Two Hybrid Swallowtails (Lepidoptera: Papilionidae)

Andrew D. Warren

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Naturally occurring hybrids between sympatric species of swallowtails have been reported for many taxa (e.g., Sperling, 1990, Tyler et al. 1994), and the phenomenon has been well studied in some areas where populations occur as hybrid swarms (e.g., Sperling 1987). Such hybrids can be of considerable scientific interest, and may provide insight into the homology of certain characters and traits (Scriber et al., 1995). Over the past two seasons, I collected two putative hybrid swallowtails: one male hybrid between *Papilio machaon oregonia* W. H. Edwards, 1876, and *P. zelicaon* Lucas, 1852, and one male hybrid between *Papilio m. multicaudata* W. F. Kirby, 1884, and *P. rutulus* Lucas, 1852.

On May 28th, 2005, adults of *Papilio machaon oregonia* (Figs. 1, 4) and *Papilio zelicaon* (Figs. 3, 6) were common along Connor Creek, 0-3 mi NNW of Snake River, ca. 2200-2800', Baker County, Oregon. On this remarkable butterfly day, joined by David Trochlell of La Grande, Oregon, 45 butterfly species were recorded along a three-mile stretch of Connor Creek, and several hundred individuals were counted. Among them was one swallowtail (Figs. 2, 5) that appears to be a hybrid between *P. m. oregonia* and *P. zelicaon*. This individual was "red-flagged" in the field as being unusual in appearance, and comparison with spread series of the putative parent species shows that most wing characters are intermediate between them. Two legs of this specimen have been deposited with Felix A. H. Sperling (University of Alberta) for DNA extraction and analysis.

The summer of 2006 brought unusually dry conditions to parts of the Colorado Front Range. On June 30, Jim Brock (of Tucson, Arizona) and I surveyed various localities in Jefferson County that are normally teeming with butterflies at that time of year. To our great surprise, probably due to the dry conditions, very few butterflies were to be found in Clear Creek Canyon or on Mount Zion. However, at the mouth of Indian Gulch in Clear Creek Canyon, we (simultaneously) stumbled upon a massive patch of blooming *Apocynum*, *Asclepias*, *Medicago* and *Monarda*, which seemingly had attracted every butterfly in the canyon! In just a few minutes we tallied 25 butterfly species. Jim returned to this spot on July 1st, but did not see the great diversity of species we found the day before. I returned on July 2nd (during the Gilpin County butterfly count led by Ray Stanford), and found the flower patch to again be quite crowded with butterflies, including many adults of *Papilio m. multicaudata* (Figs. 7, 10) and *P. rutulus* (Figs. 9, 12). One male individual (Figs. 8, 11) taken at this flower patch on July 2nd appears to be a hybrid between *P. m. multicaudata* and *P. rutulus*. It is intermediate between the two species in wing shape and size, and in various other wing markings, although the wide dark bands across the wings are more reminiscent of *P. rutulus* than *P. multicaudata*. The valvae of the putative hybrid are roughly intermediate in shape between those of *P. multicaudata* and *P. rutulus*.

As with many laboratory-produced interspecific hybrid swallowtails (e.g., Tyler et al. 1994), the wings of both of these two putative wild hybrids are slightly asymmetrical, despite both being freshly eclosed individuals. The left forewing of the male *P. m. oregonia* x *P. zelicaon* is slightly shorter and more rounded than the right forewing, and the left hindwing is slightly warped. Asymmetry of the male *P. m. multicaudata* x *P. rutulus* is less pronounced, but the right forewing apex is slightly more produced than the left forewing apex. For the time being, all specimens figured herein are housed in my private collection in Castle Rock, Colorado.

Literature Cited

Scriber, M. J., R. C. Lederhouse & R. V. Dowell. 1995. Hybridization studies with North American swallowtails, pp. 269-281. In: Scriber, M. J., Y. Tsubaki & R. C. Lederhouse (Eds.). Swallowtail Butterflies: Their Ecology & Evolutionary Biology. Scientific Publishers, Gainesville. 459pp.

Sperling, F. A. H. 1987. Evolution of the Papilio machaon species group in western Canada (Lepidoptera: Papilionidae). Quaestiones Entomologicae 23(2):198-315.

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The Marketplace

***IMPORTANT NOTICE TO ADVERTISERS:* If the number following your advertisement is "483" then *you must renew your advertisement* before the next issue! Remember that all revisions are required in writing.**

Books/Videos

For Sale: Books by Charlie Covell: ***A Field Guide to Moths of Eastern North America***. Revised Edition, 2005. $35 postpaid in US, $37 elsewhere; ***Butterflies and Moths of Kentucky: An Annotated Checklist.*** 1999. $20 postpaid. Send checks to: Charlie Covell, 207 NE 9th Ave., Gainesville, FL 32601-4378. 484

JUST OUT! DVD of the butterflies of the Amazon Basin. "O Que Passa? What's Going On Here?" 30 minutes, in English and Portuguese, of the butterflies at the Cristalino Jungle Lodge, Mato Grosso, Brazil. See the website for details and purchase. Also others in "The World's Butterflies on Film. Ongoing series in VHS (PAL or NTSC) at US$12 each + freight. 100s of species in Peru, Malaysia, Ghana, Kenya, Philippines, South Texas, Europe. Kenya also available in DVD. Contact John Banks at johnbanks@cinebutterflies.com - or on Cinebutterflies.com - or mail to John Banks, 28 Patshull Road, London NW5 2JY, UK 483

New Issues of **Papilio** (New Series): #12, Taxonomic studies and new taxa of North American butterflies. James Scott, Michael Fisher, Norbert Kondla, Steve Kohler, Crispin Guppy, Stephen Spomer, and B. Chris Schmidt, 74 p. + 6 color pl., $14.00; #13, *Phyciodes* (*Phyciodes*): more progress, J. Scott, 38 p., $7.00; #14, Butterfly hostplant records 1992-2005, with a treatise on the evolution of *Erynnis*, and a note on new terminology for mate-locating behavior, J. Scott, 74 p., $10.00; #15, Building the California Academy Drawer, J. Scott, 40 p., $6.00; #16, Portable (six drawer) cabinets for California Academy Drawers, J. Scott, 10 p., $1.50; #17, Proposals for a new INSECT STUDY, COMMERCE, AND CONSERVATION LAW that deregulates dead insects, and proposals for fixing the Endangered Species Act as applied to insects, J. Scott, 17 p., $3.50. #12-17 $38, #1-17 $69, postpaid in U.S. (add $2 abroad, foreign orders please send International Postal Money Order in dollars), James Scott, 60 Estes St., Lakewood, Colorado 80226-1254 483

Now available: **Discovering Australian Butterflies** - a simple guide to 60 of Austrlia's most common butterflies. Details at: *www.australianbutterflies.com.au* John V. Peters, 245 Quarry Road, Ryde, NSW 2112, Austrlia. 484

For Sale: Noctuidae Europaeae Vol. 1, 2, 4, 5, 6, 7, 10. Books are new, for sale for 3/4 the price of current value. Price Euro 892, - for sale: 670. - plus postage. Henry Hensel, 145 Bellevue Str., Edmundston, N.B. Canada E3V 2E2, Tel. 507-735-2332. 491

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.**

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.**

Note: All advertisements must be renewed before the deadline of the third issue following initial placement to remain in place.

All ads contain a code in the lower right corner (eg. 481, 483) which denote the volume and number of the **News** in which the ad. first appeared. ***Renew it Now!***

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 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.

Wanted: C.A. Bridges (1988) Catalogue of Papilionidae & Pieridae and C.A. Bridges (1988) Bibliography, Urbana, IL, published by the author. Jean Hanus, 2 rue de Belgrade, 38000 Grenoble, France Tel/Fax: +33 4 76 43 33 96, *jean.g.hanus@wanadoo.fr* 491

Livestock

For Sale: Cocoons (pupae) of *Saturnia walterorum* (Saturniidae) from Southern California. Send SASE for prices. Will consider trades for desired specimens like *Saturnia pavonia* (Saturniidae) and *Graellsia isabellae* (Saturniidae) from Europe, *Stigmodera murrayi* (Coleoptera - Buprestidae) from Australia, and others. Richard Priestaf 833 La Roda Ave., Santa Barbara, CA USA 93111 483

For Sale: North American lepidoptera. Many reared with full data. USA and Canada only please. Frank Bodnar 1211 Ridge Road, Apollo, PA 15613 *bodnar@akvalley.net* 484

For Sale: Captive bred Philippine butterfly pupae, year round. Imogene Rillo, P.O. Box 2226, Manila, 1099 Philippines. *clasinse@mindgate.net* 484

For exchange: Pupae and ova of the following livestock: *C. angulifera, C. promethea, S. bicolor, E. imperialis, C. regalis, S. cynthia, A.io, A. polyphemus, H. cecropia, P. cresphontes, B. philenor, P. troilus, E. marcellus*, and possibly others. Send SASE to Mark Schmidt, 8780 Red Lion-Five Points Road, Springboro, OH 45066 484

Wanted: I am looking for eggs of several eastern North American species of Sphingidae: *Manduca rustica* (Rustic Sphinx), *Ceratomia amyntor* (Four Horns Sphinx), *C. catalpae* (Catalpa Sphinx), *C. undulosa* (Waved Sphinx), and *Sphinx kalmiae* (Fawn Sphinx). Jessica Vargas, University of Colorado, E an dE Biology, UCB 334, Ramaley N122, Boulder, CO 80309. Shipment costs will be reimbursed. Please contact before shipping at *Jessica.Vargas@colorado.edu* 484

Wanted: Michigan lepidopterists only; would like to exchange lepidoptera livestock. Contact: Ken Knight 1022 Widdicomb N.W., Grand Rapids, MI 49504, or call 616-459-4598.

Specimens

Purchase/Exchange: Want to buy all butterflies from South America and Africa, also exchange butterflies of Iran with all butterflies in the world. Ahmad Karbalaye P. O. Box 11495-175 Tehran Iran email:*karbalaye@yahoo.com* 491

For Sale/Exchange: Offered for sale or exchange: Charaxes, Papilionidae and many more African lepidoptera. Numerous aberrations, sexual mosaics and gynandromorphs also available. List and pictures on request. Giancarlo Veronese, viale Venezia 138, 33100 Udine (Italia). *gc.veronese@virgilio.it* Fax: ++39/0432-23 26 54. 491

Wanted: To buy or trade the following North American papilios: *P. p. palamedes; P. eurymedon, P. multicaudatus, P. oregonia*. Also Asian *P. ulysses* ssp., *P. p. paris* ssp., *P. memnon* tailed form and African *P. hornimanni, P. charopus*. Send offers to: Jorge R. Montero - Moreno P. O. Box 1913 - 1000, San Jose, Costa Rica. 491

Wanted: Will pay cash for *Dynastes hercules* (18cm), *Titanus giganteus* (18 cm). Yoshiaki Furumi, 97-71 Komizo-Iwatsuki-Shi, Saitama-Ken 339-0003, Japan. 491

Miscellaneous

For Sale: 4 Lane Cornell style insect cabinets, 2 - 25 drawer at $500 each, and 2 12 drawer at $250 each. The cabinets are without drawers. Buyer to arrange and pay for the shipping. David H. Kistner, 3 Canterbury Circle, Chico, CA 95926-2411. Phone: 530-345-3555. Email: *dkistner@csuchico.edu* 491

Wanted: I will be donating a very large specimen collection to museums over the next several years. I desire a business partnership with person (or persons) with substantial Federal Income Tax obligation to make the donations under IRS 8283 Charitable Contributions Regulations and share the tax exemption. Confidentiality is assured, and absolutely no up front money or any kind of expenses involved. Serious inquires only. Carl Cook, Phone: 270-565-3795 or email: *bugman@scrtc.com* 491

Wanted: Donation of papered Lepidoptera, particularly tropical, singles or series welcomed, undetermined or not, but with data. Also interested in other "showy" insects. I am building a small museum for educational purposes. I may be able to help with postage but due to limited funds, donations of postage will be appreciated. Please contact: Jorge R. Montero-Moreno, P. O. Box 1913-1000, San Jose, Costa Rica. 491

Wanted: Present address of John Holden, Jr. (Iowa?) or collection boxes made by him with or without pinning bottoms. Please contact: B. Laudan 1901 Buttercup Drive, Lynden, WA 98264, Tel: 360-354-5970. 484

Announcement

If you live in the United States or Canada, and you want to join the Societas Europaea Lepidopterolica (SEL), please contact Eric H. Metzler.. The dues include the journal, NOTA Lepidopterologica (4 times a year), a journal devoted to the study of Lepidoptera and the Newsletter (about once per year). The journal is published mostly in English or with English summaries. The Newsletter is multilingual. The dues for one year is 35 Euros and the amount in US dollars is dependent on the exchange rate between Euros and the US dollar. You should expect to pay about $50.00 per year for dues and transfer fee.

The way it will work is Eric will collect dues money from each US or Canadian member (US dollars only), and he will also collect a small fee to cover the costs of forwarding the electronic wire transfer to Europe.

If you are interested in becoming a member of SEL and receiving their Journal and Newsletter, please contact Eric at spruance@beyondbb.com or Eric H. Metzler, P.O. Box 45, Alamogordo NM 88311-0045.. Do not send any money until Eric asks for money.

Observations of a male *Hypolimnas misippus* (Nymphalidae) on Big Pine Key

Mark H. Salvato and Holly L. Salvato

1765 17th Avenue SW, Vero Beach, Florida, 32962, USA, ***anaea_99@yahoo.com***

Hypolimnas misippus (L.) (Figs.1, 2, pp. 33) is a butterfly native to Africa and Asia suspected of reaching the New World either by transport on slave boats (Holland 1898) or through hurricane-induced dispersal (Williams 1930, Smith et al. 1994). Now resident in Venezuela and the Guianas, *H. misippus* occurs locally and sporadically across the West Indies (Smith et al. 1994). In Florida, the majority of known *H. misippus* observations are old (Edwards 1881, Cory 1896, Haeger 1931, Young 1938, dos Passos 1951, Kimball 1965, Lenczewski 1980); however, the species was photographed in the Royal Palm region of the Everglades during November 1986 (Glassberg et al. 2000). In addition, Alvin Wilson collected a male *H. misippus* near Belle Glade (Palm Beach County) during 2003 (Beiriger 2003). Elsewhere in the United States, a female *H. misippus* was observed, along with a number of other stray tropical butterfly species, in Bay St. Louis, Mississippi on 6 August 1970 (Mather and Mather 1976) and records from North Carolina (Opler and Krizek 1980) and southern Texas (Bordelon and Knudson 2002) also exist. As for immature stages, *H. misippus* is known to have reproduced in Florida, at least historically (Haeger 1931, dos Passos 1951), with both oviposition and larval activity being observed on purslane (Portulacaceae).

On 4 November 2006 we observed a male *H. misippus* in the Cactus Hammock area of National Key Deer Refuge on Big Pine Key within the lower Florida Keys (Fig. 3). To our knowledge this represents only the second known occurrence for this species within the Florida Keys. The prior observation was by Noble S. Proctor (unpublished data), who noted a male *H. misippus* on 30 April 1966 in the botanical garden on Stock Island.

In the recent *H. misippus* occurrence, the authors and their colleagues encountered the individual on numerous occasions for several weeks after the initial observation. This single male was easily recognizable based on two uniform bite marks on the upper-wings (likely from an encounter with a small lizard or bird). In each observation the butterfly demonstrated strong territorial behavior within Cactus Hammock, regularly patrolling an upland hammock area of approximately a 1-hectare in size. The butterfly actively chased other adult butterflies, in particular *Junonia evarete* (Cramer) (Nymphalidae), from the vicinity. Although this *H. misippus* was observed taking nectar from available flowers, such as *Stachytarpheta jamaicensis* (L.) Vahl (Verbenaceae), during the majority of each observation the butterfly was observed traversing the hardwood hammock canopy and alighting head down on the treetops.

A review of climatic data from the time preceding our observation on Big Pine Key indicated that winds within the western Caribbean were strong (upwards of 71 kph) and predominately moving to the east-northeast suggesting this individual may have originated in the West Indies, perhaps Cuba. In the days following this observation we visited numerous coastal locations throughout the lower keys in an attempt find other *H. misippus* but these efforts were unsuccessful.

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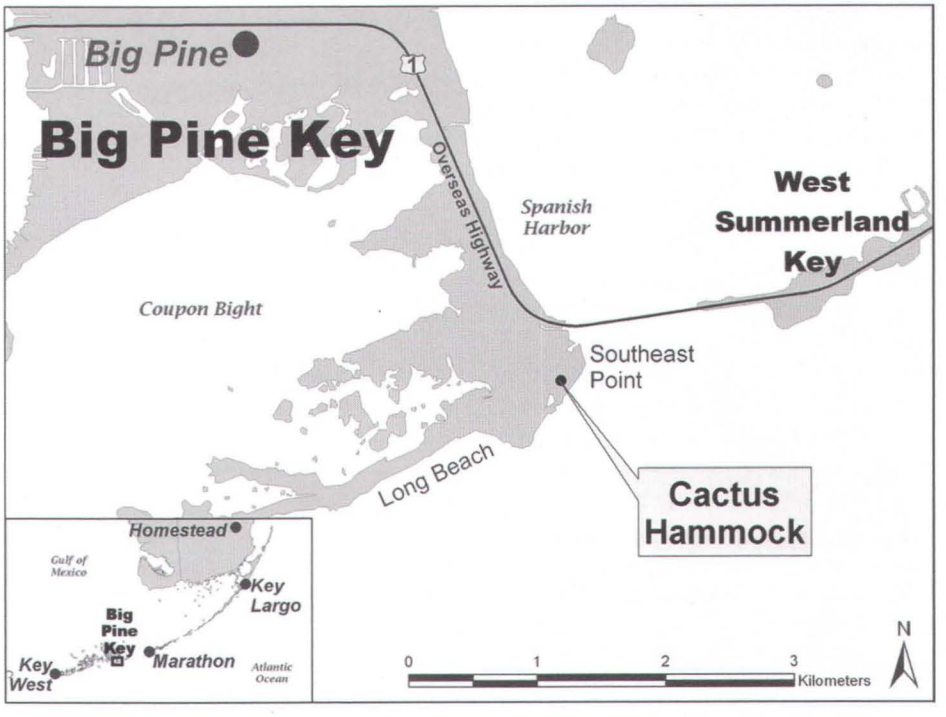

Fig 3. *The location of Cactus Hammock on Big Pine Key, Florida.*

Membership Update...

Julian Donahue

This update includes all changes received by 23 February 2007.

"Lost" Member

(*publications returned: "temporarily away"*)

Morris, John W. (Camillus, NY)

Additions/corrections to entries in 2006 Membership Directory:

Adams, Don: [Sustaining Member, "lost" at time of compilation because Post Office inadvertently returned a publication as undeliverable.] 481 East Center Street, West Bridgewater, MA 02379-1815. Home: (508)588-0038; Work: (508) 881-2000 X 2303). RHOP, MACRO, esp. Saturniidae, Euphydryas phaeton; rearing, life history, photography, habitat enhancement.

Harris, Candice: correct spelling of first name (not "Cardice")

Wiley, Bruce E.: [inadvertently omitted] 4 Maplewood Drive, Kennebunkport, ME 04046-6114. Butterfly watching, photography (including photomicrography & videomicrography), life history, rearing. To date have worked almost exclusively with the monarch butterfly. email: bcllsk@gwi.net

Young, James D (Ph.D.): [lost at time of compilation] Dept. of Botany & Plant Pathology, Cordley Hall 2082, 2701 SW Campus Way, Oregon State University, Corvallis, OR 97331-2902. Phone (541) 737-1501. MICRO, esp. Tortricidae; morphology, economic pests; life history, rearing, parasites. email: youngja@science.oregonstate.edu

New and Reinstated Members:

(*members who have joined/renewed/ been found/or rescinded their request to be omitted since publication of the 2006 Directory; all in U.S. A. unless noted otherwise*)

Albanese, Gene: 2418 North Park Drive, Stillwater, OK 74075-2638.
Bedford, John R.: 16 Banff Road, Toronto, Ontario M4S 2V5, **Canada.**
Conner, Mindy: 2171 Royall Drive, Winston-Salem, NC 27106-5226.
Curtis, William M.: 2561 Country Park Drive, Prescott, AZ 86305-4017.
Devine, Joseph: 128 East Swatara Drive, Jonestown, PA 17038-8814.
Dion, Yves-Pascal: 996 Boulevard du Lac, Quebec, Quebec G2M 0G6, **Canada.**
Eichlin, Thomas D. (Ph.D.): 1367 East Washington Ave., Gilbert, AZ 85234-1065.
Goldmann, Richard J.: 853 Emerson Avenue, Syracuse, NY 13204-1707.
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Unusual Host...*cont. from pp. 26*

botanist that specializes in Asteraceae. That botanist is at the University of California in Berkeley, California. They will make arrangements to collect the plant and work on the determination as soon as possible. However, this could take a couple of years.

The pre-diapaused larvae only eat the mesophyll of their host but can eat the entire leaf of the *A. engelmannii*. In the spring the leaves are tender so the post-diapause larvae eat the entire leaf except the mid-vein.

The larvae and eggs collected on 27 May were reared under 24 hours of photoperiod. Ninety-two of the larvae went through to adults. Approximately 200 larvae diapaused. On June 27 the leaves of the host plant were still greenish but tough, leathery, and some turned yellow. Apparently it would be impossible for larvae to progress to adults in nature without diapausing. With the two broods combined 192 adults of *dorothyi* were obtained. Approximately 50% are nominotypical *sterope*, approximately 50% are intermediate with *acastus*, and two are *acastus* phenotype.

Membership Directory....*continued from pp. 23*

There is a small portion of our membership that do not have computers, access to the Internet, or any interest in digital format. For these members we should be prepared to make concessions. Perhaps by mailing a "hard" (printed) copy of the DIRECTORY to those specifically requesting it. Initially this could be done for no additional cost, but eventually those members, desiring such a printed version, should be charged extra for it.

Hybrid Polites...*cont.from pp. 25*

scarcity of *P. sabuleti* in the region, adults of the two species probably come into contact very rarely.

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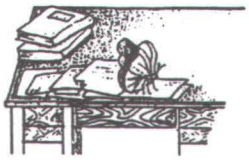

From the Editor's Desk

Dale Clark

Only enough room for me to remind you to send those submissions for the Summer issue. The deadline is May 4, 2007, so there is no time to waste. And remember, a submission can be as simple as a letter of comment for the Mailbag. My thanks to everyone who contributed articles and photos to this issue. As always, I want to hear from you.

Dale Clark

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H. misippus...*cont.from pp. 30*

Although the species is widespread in the Caribbean (Smith et al. 1994, Hernandez 2004), it is not considered common, so this may explain why only single stray *H. misippus* are encountered at any one time in Florida or elsewhere in the southeastern United States. However, given the localized behavior exhibited by the individual in our observations, as well the remote, little traversed nature of much of the Florida Keys, *H. misippus* may occur more frequently within this island chain than is presently known.

Acknowledgements

The authors thank Lyn Atherton, Brooks Atherton, Byrum Cooper, Linda Cooper, Marc Minno, Maria Minno, Dennis Olle and the Miami Blue Chapter of the North American Butterfly Association for sharing their field observations. The authors thank Barry Wood for preparing the figure of Big Pine Key. The authors especially thank John V. Calhoun for his assistance and enthusiasm in identifying prior historical records of H. misippus *in Florida and elsewhere in the southeastern United States and for helping us to obtain numerous papers, including many older publications, on the species.*

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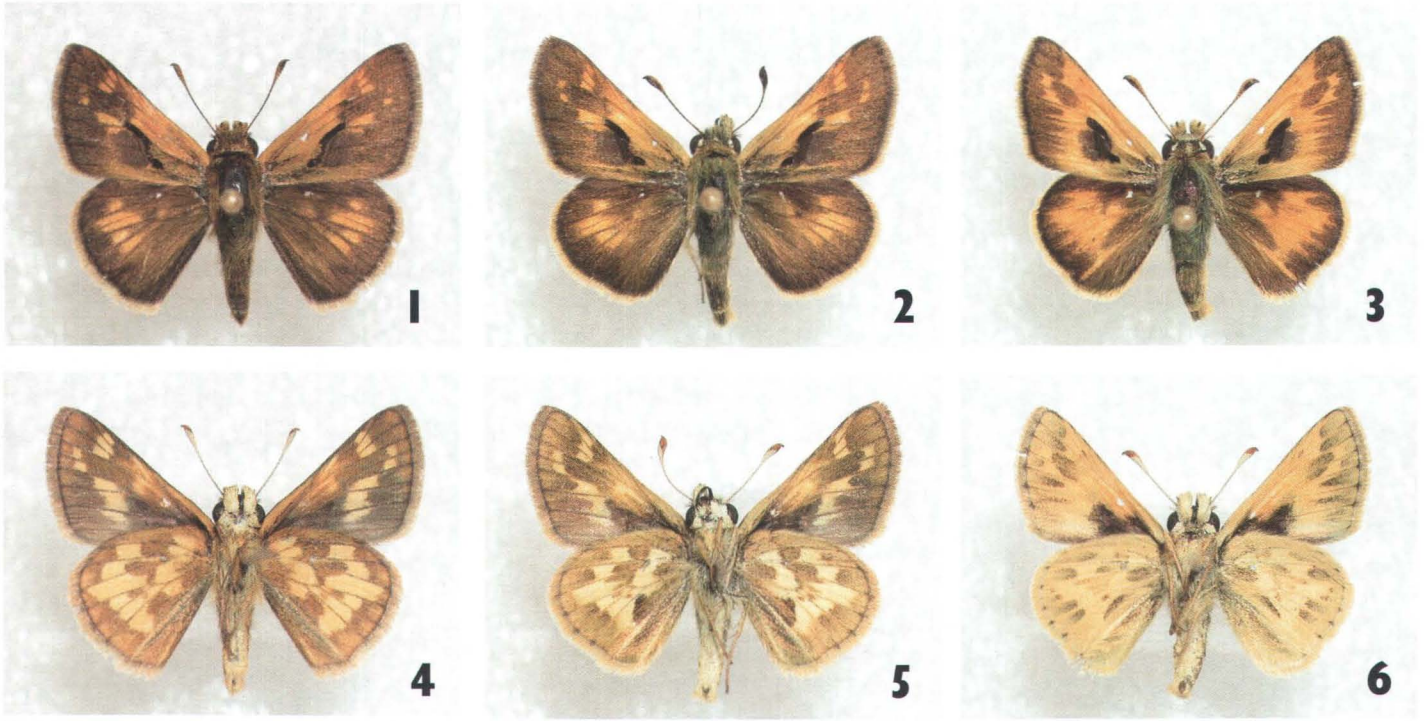
Hybrid *Polites peckius* and *Polites sabuleti*



Figs. 1-6. Male *Polites* collected in garden at Warren residence, Hidden Pointe, 8 mi NNW Castle Rock, 6400', Douglas County, Colorado, in August 2002. **Figs. 1** (dorsal), **4** (ventral), *Polites peckius*, collected 17-VIII-2002. **Figs. 2** (dorsal), **5** (ventral), putative hybrid between *P. peckius* and *P. sabuleti* collected on 17-VIII-2002. **Figs. 3** (dorsal), **6** (ventral), *Polites sabuleti*, collected 30-VIII-2002. See article on pp. 25.

The Mimic (*Hypolimnas misippus*) in the Florida Keys

Fig 1. *Hypolimnas misippus*, on Big Pine Key, 4 November 2006 (Photo Credit: H. L. Salvato). **Fig 2.** *H. misippus*, on Big Pine Key, 10 November 2006 (Photo Credit: H. L. Salvato). See the article starting on pp. 30.

Classic Collecting Campaigns Mount Pinos, California

Kelly Richers

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Since the 2007 National Meeting of the Lepidopterists' Society will be held in Bakersfield California, it seems an appropriate time to write about one of the most interesting areas in the Golden State for collecting butterflies and moths, Mount Pinos. Mount Pinos is located about 40 miles southwest of Bakersfield, and about a dozen miles west of Interstate 5 accessed by the Frazier Park exit.

Part of the Los Padres National Forest, Mount Pinos rises an impressive 8800 feet in elevation, towering over the towns of Frazier Park and Lake of the Woods near its base. Generally obscured from the casual traveler on Interstate 5 by Frazier Mountain, Mount Pinos lies another 12 miles to the west of Interstate 5. The name describes the mantle of Pine (*Pinus*) trees that cover the summit and slopes of this, the highest peak in the Los Padres National Forest. "Pino" is Spanish for "pine". The pronunciation is "Pine-ose" for those of you who want to be thought of as locally savvy.

Somewhere in the vicinity reportedly is the famous "Lost Padres" mine which was rumored to be the source of much early gold found by native Americans during the Spanish exploration years, but though the legend led to much gold exploration in the 1860's, nothing of significance was discovered. Rumors of the mine being buried persist, however.

Also in the area is the location of the strongest earthquake to ever strike California, the January 9, 1857 Great Fort Tejon earthquake, of 7.9 magnitude when the San Andreas fault shifted. However, so remote was the area that only one person died. The area is still remote, but nothing like in those days.

Since that time, the roads that were built connecting Los Angeles and Bakersfield have gradually opened up the area to settlement, and now many people live in Frazier Park and commute to either Los Angeles or Bakersfield. However, relatively few roads connect the area east-west, and with the exception of the community of Pine Mountain (population 2500) located 18 miles west of Frazier Park, there are few residences near Mount Pinos. There are a few scattered houses and ranches, but Cuddy Valley at the base of the mountain includes only a few hundred residences.

Mount Pinos is an excellent collecting area from the time the road to the summit opens in the spring or early summer to the time the snows close it again in the fall or winter. There is significant enough snowfall in the winter that there are generally road closures for much of the winter. However, beginning with Memorial Day and extending well into October or November, collecting is able to be enjoyed by moth collectors and to some extent by butterfly enthusiasts well into September or October.

Virtually all visitors approach from the east, and the exit ramp is the Frazier Park exit that leads toward Mount Pinos. As soon as the exit to the west reaches a small road going north, paralleling the freeway less than a quarter mile from the Interstate, there can be collecting. Turn to the north on this road, drive until you are away from the buildings, and explore the dry looking ground to the west of the river gully. There may be *Gaeides xanthoides xanthoides*, *Euphilotes bernardino* and *Hesperia comma tildeni* nectaring on *Eriogonum* (buckwheat) or other low growing bushes.

Back on the main road going west, the road passes through the small town of Frazier Park. Continuing on the road, the next collectable area is the stream bed just before the turn to Frazier Mountain, in the small intersection called Lake of the Woods, which sits at 5200' elevation.

If one takes time to explore the streambed, there may be species flying in the plant growth that is in the area. Turning left onto the road that leads toward Frazier Mountain and the Chuchupate Campground, which is the Lockwood Valley Road, there is a small area of greenery almost immediately on the left (before reaching the Ranger Station) that contains the local butterfly, *Cercyonis sthenele silvestris*. Males generally are much more prevalent in July and females in early August, and only in this small area.

At the intersection of this road, there is a small shopping center with a pizza place and general store. If arriving in the dark or early morning areas, the large lights on the west and south of this building, as well as the lights on the front of the store, generally attract interesting species of moths, including *Sphinx vashti*, *Sphinx perelegans* and many uncommon micro-moths. On the list of county moths of California, fully 240 county records come from Mt. Pinos and the areas below down to Frazier Park. Over 400 species inhabit the slopes and chaparral on the summit, from 8800' to Lake of the Woods below at 5200'.

However, the goal should be to reach Mount Pinos. If a person is in Lake of the Woods the mountain's mass is looming on the west side of the area. Continuing west, the road moves upward through forest. At a clearing there is an intersection that would

either lead further west to Pine Mountain or uphill to the left to Mount Pinos. The better collecting is up the road to the left.

One of the reasons for the excellent diversity on Mount Pinos is the change in elevation. Rising over three thousand feet above the settlements below, Mount Pinos has collecting areas up to the parking lot at the summit.

The road becomes heavily forested and there are few stopping places directly visible from the road. Occasional turnouts are available and the bushes and growth along the side of the road where accessible hold many species of *Drepanulatrix* moths. Fritillaries begin to be visible flitting in and out of the undergrowth, and they are usually moving very rapidly uphill. Chasing them here will only bring frustration.

At approximately the 7400 foot level, there is a camping area named McGill Campground. Dirt roads lead off to the left from the main paved road at that point. Nestled among the bushes, trees and undergrowth, *Speyeria coronis hennei* flies rapidly during the month of July. On the *Eriogonum* (much lower and smaller plants than below) can be found *Icaricia neurona*, the Veined Blue, but it takes much searching since it flies very close to the ground.

Walking this area can often be profitable for the butterfly collector. Just uphill from McGill Campground about 500 yards there is a barely visible dirt path/road that is for walking not driving, leading off to the left. Parking there and walking through the woods will bring specimens, as the stream generally has a trickle of water and blooms are sparsely located along the banks, as well as puddling areas.

The moth collector may want to camp overnight at McGill, and just sling out a light or trap from the campsite. Get one that faces back toward the east or south at the edge of the camping area, for the best results. Setting a sheet or trap along the little road described above is also very useful. Don't forget to pay for your camp site if you stay all night.

Continuing uphill, when at about the 8200 foot level or slightly higher, the road levels out and there are daytime collecting areas to the left, or south. There are wide flat rocks and butterflies dart among them to the blooms in the softer forest earth among the widely spaced trees.

At the top, or summit, there is a wide paved parking lot. Hikers, astronomers, California Condor watchers and others congregate there, so it is rarely empty, especially on the weekends. It is large enough, however, that there are moth collecting spots for those who need a car hookup. To the west lies a large meadow that may contain many butterflies, although this collector has not usually had notable luck there. The drier forest areas have demonstrated that they have more variety in the past.

Mount Pinos is recommended for both butterfly and moth collectors, but it is not an "easy" collecting area. Specimens are usually singletons, and only rarely are there several in one spot found without the searcher walking about. Safety measures would include not losing sight or location of the roads, but if lost, hiking downhill will bring one to civilization if heading east.

There are mountain lions abounding in the area. This author had a raccoon drop out of a tree three feet away one dark night, causing several years of his life to flee in a microsecond. Snakes may be in the heavy undergrowth. Take water, as it can be warm during the daytime. There are, in other words, the usual hazards of being outside in the woods. However, for a very pleasant day or night or overnight stay in beautiful pine woods, with the rewards of some of the rarer species found in California, it is a wonderful experience.

(*Readers: See pp. 40 for a sampling of specimens that Kelly collected in July. -- Editor*)

A New US Record for a tropical fruit-piercing moth

Vernon Antoine Brou Jr.

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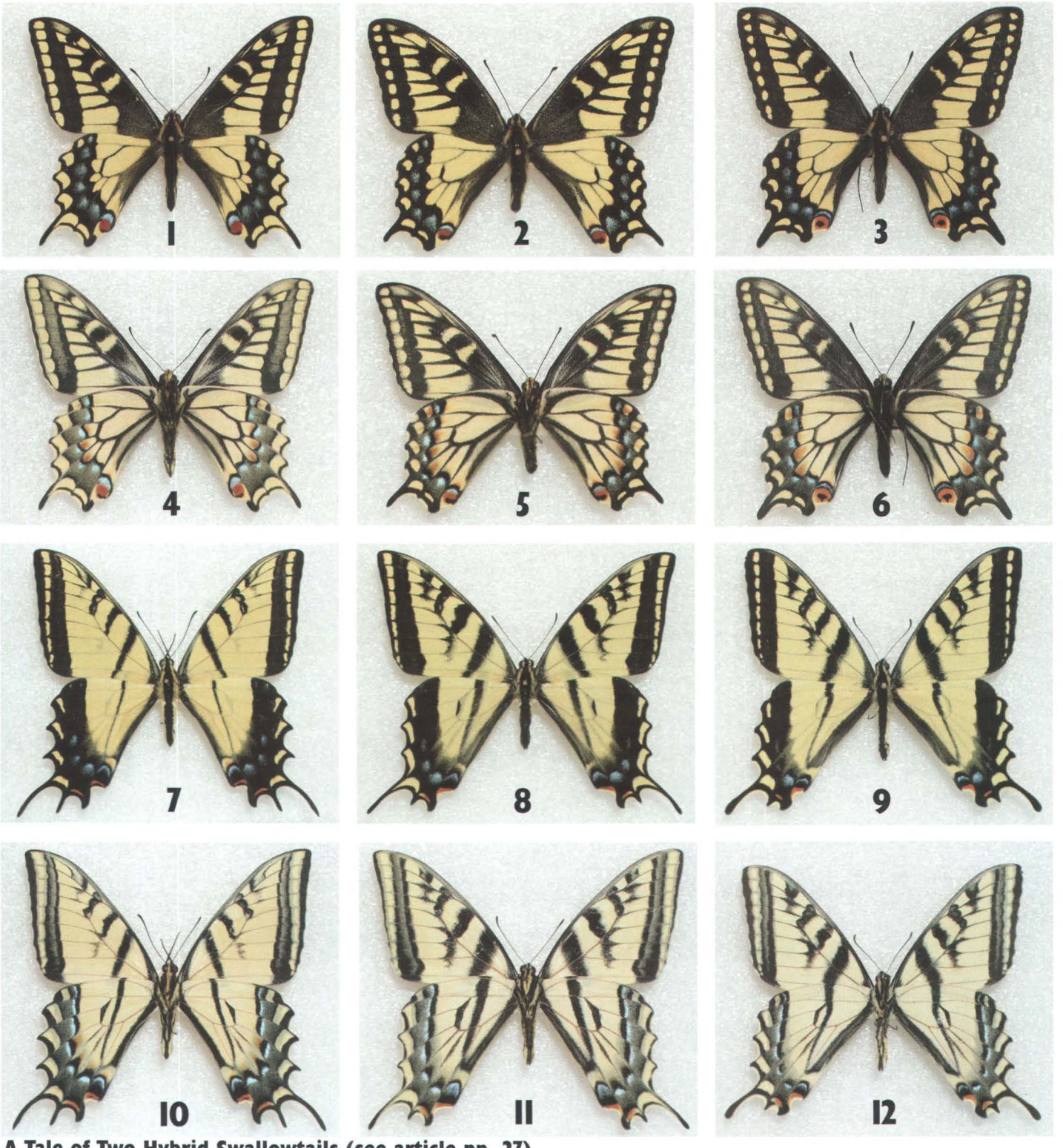
A single specimen of the large noctuid moth *Eudocima serpentifera* (Walker) (see photo pp. 37) was captured in a ultra-violet light trap at sec.24T6SR12E, 4.2 mi NE of Abita Springs, Louisiana on October 25, 2006. This female appears to be the first reported record for this tropical species in the United States. The type locality of *serpentifera* is the Dominican Republic and Brazil. *E. serpentifera* is significantly larger (wing length: 52 mm) than the other known occasional tropical migrant *Eudocima apta* (Walker, [1858]) (wing length: 45 mm). The details for Louisiana and some other US records of *Eudocima*, including a brief discussion involving nomenclatural changes for some species of the worldwide genus *Eudocima* Billberg can be viewed in the original report **"A New US Record for the tropical fruit-piercing moth Eudocima serpentifera (Walker, [1858])"** in Southern Lepidopterists' News Vol. 28. Investigation like this involving new US lepidoptera, and other lepidoptera related articles of the Gulf States are available through the publications of the Southern Lepidopterists' Society. http://www.southernlepsoc.org/



A Tale of Two Hybrid Swallowtails (see article pp. 27)

Figs. 1-12. Male swallowtails, all collected by Andrew D. Warren. **Figs. 1** (dorsal), **4** (ventral), *Papilio machaon oregonia*, Oregon: Baker County: Connor Creek, 0-3 mi NNW Snake River, ca. 2500', 28-V-2005. **Figs. 2** (dorsal), **5** (ventral), putative hybrid between *P. m. oregonia* and *P. zelicaon*, Oregon: Baker County: Connor Creek, 0-3 mi NNW Snake River, ca. 2500', 28-V-2005. **Figs. 3** (dorsal), **6** (ventral), *Papilio zelicaon*, Colorado: Douglas County, Hidden Pointe area, 6400', 8 mi NNW Castle Rock, 12-V-1998. **Figs. 7** (dorsal), **10** (ventral), *Papilio m. multicaudata*, Colorado: Jefferson County, Tinytown, 30-VI-2006. **Figs. 8** (dorsal), **11** (ventral), putative hybrid between *P. m. multicaudata* and *P. rutulus*, Colorado: Jefferson County, Indian Gulch in Clear Creek Canyon, ca. 6000', 2-VII-2006. **Figs. 9** (dorsal), **12** (ventral), *Papilio rutulus*, Colorado: Douglas County: Hidden Pointe area, 6400', 8 mi NNW Castle Rock, 9-VI-2006.

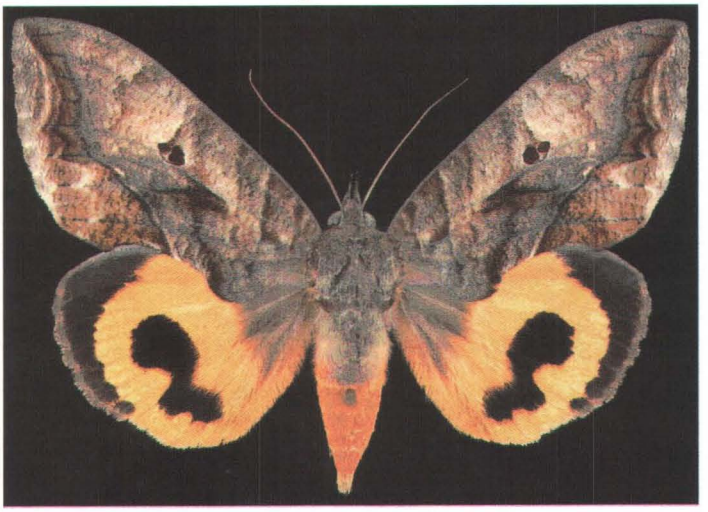
Two Butterflies of the Dominican Republic

1) *Calisto pulchella darlingtoni* was common in the forests of the Central Cordillera, Dominican Republic in November 2006. **2)***Antillea pelops* is one of the smallest nymphalid species in the world. See article on pp. 12.

Three's A Crowd

On June 4, 2006 I observed a mated pair of *Lycaena cupreus* at Lang Crossing of the South Yuba River, Nevada Co., CA at about 1500m on the western slope of the Sierra Nevada. Shortly thereafter, a second male arrived and began vigorously courting the already engaged female. Although never making genital contact, he was, at one point, briefly attached to the female's abdomen. The second male flew off after about five minutes. Ian M. Wright

Figure 2, *Kricogonia lyside* egg on *Bulnesia arborea*. See note and Figure 1 on pp. 7. Photo: H.L. Salvato.



Eudocima serpentifera (Walker), a new US record collected by Vernon Brou, Jr. See note on pp. 35.

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:

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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).

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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 **49** must reach the Editor by the following dates:

Issue	Date Due
2 Summer	May 4, 2007
3 Autumn	Aug. 3, 2007
4 Winter	Oct. 26, 2007

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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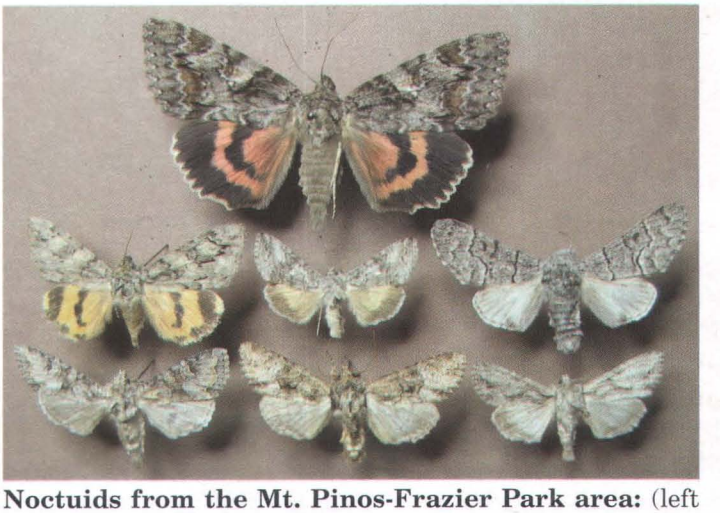
Some of the Lepidoptera of Mt. Pinos-Frazier Park, California

Butterflies of the Mt. Pinos-Frazier Park area: (left to right, top to bottom) *Colias alexandra harfordi, Gaeides xanthoides xanthoides, Chalceria heteronea clara, Satyrium sylvinum dryope, Speyeria coronis hennei, Cercyonis sthenele silvestris, Euphilotes bernardino*, and *Icaricia neurona*.

Geometrid moths of the Mt. Pinos-Frazier Park area: (left to right, top to bottom)*Macaria adonis, Neoterpes trianguliferata, Caripeta aequaliaria, Sabulodes spoliata berkleyata, Enypia coolidgi, Dysstroma formosa.*

Larger moths of the Mt. Pinos-Frazier Park area: (top to bottom) *Hyalophora euryalus, Lophocampa argentata, Sphinx vashti.*



Noctuids from the Mt. Pinos-Frazier Park area: (left to right, top to bottom) *Catocala aholibah, Catocala johnsoniana, Syngrapha celsa sierra, Panthea gigantea, Apamea occidens, Apamea albina, Apamea spaldingi.* **Below:** *Oncocnemis wilsonensis, Oncocnemis rosea, Oncocnemis figurata, Admetovis oxymorus, Polia piniae*