



NEWS

of the LEPIDOPTERISTS' SOCIETY

No. 6 Nov/Dec 1991

EDITOR

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U.S.A.

ASSOCIATE EDITOR

NEWS
FROM
EUROPE

W. O. De Prins



1. Ken Philip
2. Jon Shepard
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ZONE COORDINATORS

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13. Boyce Drummond

INTRODUCING THE TWO NEW EDITORS

A NEW EDITOR FOR THE NEWS

Our new NEWS Editor is Stephanie Shank McKown. She will begin her duties with NEWS #2, 1992. Stephanie McKown grew up on a farm in the Imperial Valley of Southern California. Her interest in Lepidoptera began when she was in 4-H Entomology and a member of TIEG. Family vacations to Arizona, Colorado, and Mexico; 4-H camp and visits to her grandfather's cabin near Julian (CA), were spent collecting insects. A Wilderness Foundation Field School at Mammoth Lakes (CA) and a NSF Summer Science Training Program in Geology at Texas A&M in College Station enabled her to further appreciate the outdoors and to collect interesting butterflies and moths.

While attending college in Texas she took coursework that included field trips to the Chihuahuan desert, the Sonoran desert, Jamaica and tropical Mexico. She also completed a field Geology course entitled the Natural History of the Hawaiian Islands from the UC San Diego. Another summer she was part of a field team that inventoried insects on the Red River Salt Project in the panhandle of Texas. All of these activities gave her an appreciation for different habitats and

ecosystems. She received her Bachelors degree in Biology from West Texas State University in Canyon, south of Amarillo. While pursuing a Graduate degree she married a native Texan, Dr. Ronald R. McKown, whose similar interests provided for many weekends of camping trips collecting beetles and butterflies. She began to accompany Ron on his yearly camping/collecting trips to Mexico.

A job change caused Stephanie and Ron to move to Grand Coulee, Washington. Between camping trips to Mexico and Guatemala, Stephanie collected many butterflies and a few moths in eastern Washington. Prompted by Bob Pyle's Watching Washington Butterflies, she joined the Lepidopterists' Society in 1982 and she attended her first Pacific Slope meeting in 1983 (Big Pine, CA). All of a sudden, collecting Lepidoptera took on a whole new meaning. It was so exciting to be able to talk to other people who enjoyed collecting as much as she did. It was wonderful to find out that there were people who could and would identify the few moths she had been collecting.

The McKown's moved to Southern Nevada, and Stephanie discovered the difficulties of butterfly collecting in the desert (while pregnant). Not content to just sit and wait it out she turned to mothing. With the knowledge that she could coerce numerous Lepidopterists' Society members to put names on some of her moths she was soon hooked on blacklighting. She began to devote most of her spare time (and almost every weekend) to moth collecting. In an attempt to learn about the moths of Nevada she began an inventory of the moth fauna of a Mojave desert wash. Every month for six years she blacklighted at a site near Nelson, Nevada. Other weekends were spent on forays to the different mountain ranges of Nevada and a few trips to Arizona. Her favorite moths are the Pyralidae, other micros and Noctuidae.

Stephanie and Ron and their two daughters recently moved to Boise, Idaho. Stephanie is excited about the move since every move puts her into different habitat and thus able to collect different moths. In addition to her moth collecting activities, Stephanie works as a biologist part-time for a consulting firm. Recent work includes ground truthing National Wetlands Inventory maps and collecting insects in stream habitats contaminated by toxic waste. She is a life member of the Lepidopterists' Society and at present a member at large of the executive council. She has attended the annual meetings since 1988.

NEW JOURNAL EDITOR

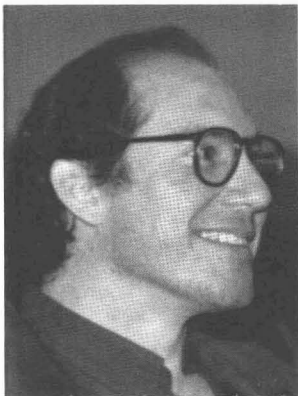
Dr. John W. Brown is the new editor of the JOURNAL OF THE LEPIDOPTERISTS' SOCIETY with his duties beginning 1 January 1992. John is an environmental consultant with Dudek and Associates, Inc., a San Diego-based civil engineering firm. He also is a Research Associate of the San Diego Natural



History Museum. John's research interests include the systematics of neotropical tortricid moths, the Lepidoptera fauna of Baja California, Mexico, and conservation biology.

John received a B.S. in Zoology from San Diego State University and a Ph.D. in Entomology from the University of California, Berkeley. Under the soft-spoken, mild-mannered tutelage of Dr. Jerry A. Powell, John contracted a severe affliction for microlepidoptera. After graduating from Berkeley, John spent a year at the National Museum of Natural History with the support of a Smithsonian Postdoctoral Fellowship, and a year as a technician in the Entomology Section of the Natural History Museum of Los Angeles County.

John has authored or co-authored over 40 technical and general interest papers on Lepidoptera systematics, biogeography, and ecology. His papers have appeared in the Journal of the Lepidopterists' Society, Journal of Research on the Lepidoptera, Bulletin of the Allyn Museum, Pan-Pacific Entomologist, Journal of the New York Entomological Society, Brenesia, Entomological News, Journal of Biogeography, Florida Entomologist, Biotropica, Entomologica Scandinavica, Transactions of the San Diego Society of Natural History, and Contributions in Science (LACM). John has assisted Paul Opler as co-editor of the annual Xerces Society Fourth of July Butterfly Counts since 1987.



John has been a member of the Lepidopterists' Society since 1977. He is a frequent attendee of the Society's meetings, and he served on the Executive Council from 1988-1991. As the new editor of the JOURNAL, John hopes to maintain the high quality to which subscribers and contributors have become accustomed.

MISCELLANY

REAL SHUTTER BUGS

Recent observations on the reaction of certain species of lepidoptera to my efforts at field photography, along with rapidly accumulating information on hearing in lepidoptera, give rise to this communiqué.

In June, in Islesboro, Waldo County, Maine, I was endeavoring to photograph *Rheumaptera hastata*, small but strikingly patterned day-flying black-and-white geometrids. On each occasion, as the shutter clicked, the moth departed in haste. However, each moth was satisfactorily recorded on film in its resting posture. This was in contrast to my previous common experience with butterflies, where my over-long efforts to achieve perfect composition have led to a nice collection of slides of flower sans butterfly.

In July in Garden Cañon in the Huachuca Mts., Cochise Co., Arizona, there were many *Alypoides geronimo*, a day flying agaristine noctuid (also black and white — significant?), flying along the road, and frequently resting on the dirt or on adjacent vegetation. Each time I attempted to photograph one of these creatures, it too departed at the click of the shutter, but not before being properly recorded on film.

I have not noted this behavior previously. It would be interesting to know whether other members may have made consistent observations of this sort with particular species, or on a random basis with just any species. The crux of the matter is departure at the sound of the shutter, with a successful image being obtained.

If I am not the only one with a spooky shutter, let me hear from you. Perhaps our pooled observations could lead to a useful note.

Dave Winter
Dedham, MA

MY RUDIBUS

On the morning of September 7, 1991 I was working at my place of business near Amite, in south central Louisiana. I had been busy all morning with customers in my store, located about 200 yards from my home. At eleven that morning I had a little break in the business, so I walked out the back door to check on things at the service department next door.

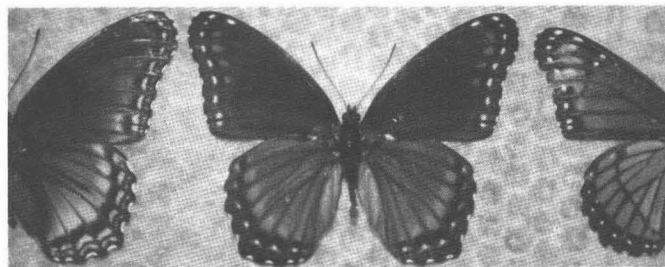
As I walked toward the other building I noticed a very dark *Basilarchia archippus* perched upon a 4-wheeler outside the door. Our Viceroy's around here are of the *watsoni* flavor and dark individuals are not that uncommon. I had walked several feet past this specimen when something stopped me and I turned for another look. As I realized (slowly) just what I was looking at my heart skipped a beat or two then started pounding as panic quickly set in. This was obviously not your everyday viceroy, but perhaps an archippus/arthemis hybrid! My first thought was: GET THE NET! GET THE NET! My net was in the back of my truck parked at my house. I sprinted the 200 yards in about 12 seconds flat and was nearly back to the insect when my second thought leapt into my head; THE VIDEO CAMERA! GET THE VIDEO CAMERA! DROP THE NET! I have been working on a video project all summer, trying to capture a majority of our butterflies on video and this would be a priceless addition. I sprinted BACK to the house, meeting my wife Karen about halfway there.

"There's a bug on the red four-wheeler, don't let it get away!" I screamed.

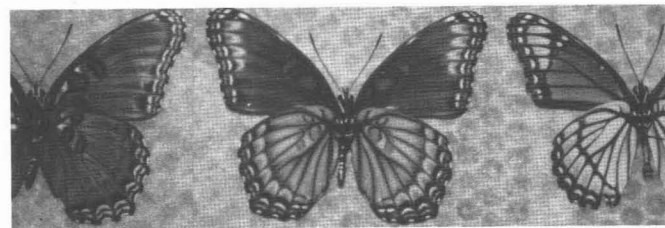
"Yeah, right! Now calm down!" she replied in a patient voice, being almost accustomed to the strange doings of her husband.

As I fumbled with the video camera, I was struck with the certainty that the bug would be long gone upon my return. I had to make myself walk, DON'T RUN, back to the store, as running with a \$1000 video camera is NOT recommended!

To my relief, the insect was still there, fanning his wings in the late morning sun. The normal orange of the viceroy was deeply tinted with the blue of the red-spotted purple. Breath-taking! I was able to shoot several minutes of videotape before deciding not to press my luck any further. I set aside my camera and took up my net to make the capture. Several customers had driven up during this time and were wondering (out loud) what was this businessman doing, tearing about with a BUTTERFLY NET? I had to explain to them that, yes, I did want their business (and money) but that I had to catch this BUG first!!!



DORSAL COMPARISON



VENTRAL COMPARISON

After the excitement had died down, I had not only a beautiful hybrid in perfect condition, but several minutes of videotape as well. This episode came at a time my interest was starting to lag, and this was just what I needed to get fired up again!

Jonathan M. Kemp
Roseland, Louisiana

IS SPEYERIA DIANA ATTRACTED BY MANURE?

Several lepidopterological textbooks, [e.g. "A field guide to the butterflies" by Alexander B. Klots (1951), "Butterflies and moths" by Robert T. Mitchell & Herbert S. Zim (1964), "The butterflies of North America" by James A. Scott (1986)] mention that *Speyeria diana* Cramer, besides nectaring on flowers, likes to sip manure or dung, (and could be lured by it). On July 11, 1991, I was observing and photographing Dianas in the western part of Virginia. This year (1991) the common milkweed, *Asclepias syriaca*, because of unknown reasons, started to flower (in the Washington, D.C. area and Virginia) at least one, if not more, week prior to its normal flowering time. For example, on July 1, 1991, it was in full flower even in the mountains of northern Pennsylvania. Therefore, on July 11, 1991, in the piedmont of Virginia the flowers were gone, and only in higher elevations were some milkweeds still in flower. Therefore, in my observation, the population of *Speyeria diana* had to compete for their source of nectar with other butterflies, esp. *Speyeria aphrodite*, *Papilio troilus*, *Papilio glaucus*, and *Battus philenor*. Finally, I discovered some scarce milkweed blossoms at higher elevations. On one small group of milkweed there were about 4 *diana* males, as mentioned, fighting and "flirting" with other butterflies. I observed some closer relationships (if it could be said this way) between females of *Papilio troilus* and males of *Speyeria diana* (this observation I also made in 1990 at another locality).

About 1/2 a mile downhill I randomly witnessed a defaecating horse. (July 11, 1991). I took the fresh manure, about 4 pounds, and brought it by car to the nectaring *diana* males. I placed it directly below the milkweeds, where *dianas* were nectaring, on the road bank, so the intensely smelling fresh horse excrement was about one and a half yards from the *dianas*. I spent about 5 hours at that place between noon and 5:00 p.m. The male *dianas* absolutely ignored the very intensely smelling fresh horse excrement, as did the other butterflies with the exception of *Phycoides tharos*. On the contrary, more than a dozen coprophagic beetles of different sizes were coming flying from all directions and diving into the feces.

About one hundred yards aside on the same dirt road, on a small patch of another milkweed, a female *Speyeria diana* started her nectaring at about 3:00 p.m. She was very "cooperative" and tame. When not nectaring, she was basking on leaves, and also was fascinated by my white Honda-Accord car. She tried repeatedly to land on the windshield, and several other parts of the car, no matter the color (white doors as well as black tires). She also sat on my linen shirt on my right arm. The shirt was dry and clean, no obvious moisture or sweat.

The conclusion from some of the above described observations perhaps could be, that *Speyeria diana* males, when having the choice between *Asclepias syriaca* nectar and fresh horse excrement, prefer the flower nectar 100% of the time.

George O. Krizek, M.D.
Washington, D.C.

BUTTERFLY: A LANGUAGE SAMPLER

The bouncing flight of a variegated lepidopterous creature of beauty on a joyous sunny summer's day elicits a sense of wonder. What would a wordy big creature like man call this delightful ephemeral little insect? I chose to compile "butterfly" words because such words don't follow the usual linguistic patterns. "Butterflies" have their own "unrules," but there is a seemly, not seeming, pattern. Notice that the labial consonants are prominent: *m*, *p*, *f*, and *b*, and frequent too are the lingual *l*'s and the sonant *r*'s and *n*'s. And bouncy syllabic repetition reflects the voiceless erratic errant flight. What other insect shapes such linguistic anomalies? Certainly not a moth or a bee. Even an unemotional cataloging of butterfly words is not boring, as in the list below. These words are almost onomatopoeic though the flying is silent, and again they have strange almost inexplicable origins: The recent theory is that "butterfly" is short for "butter-colored fly" to name the common European "yellow brimstone." But was a "butterfly" originally a "flinterfly"?

And why is there an unswerving beeline by dictionaries to show that there was an Old English *butterfleoge*, perhaps from a belief that butterflies stole milk and butter, a theory strengthened by German *Schmetterling*, or 'little one' from (stealing) *Schmetten* 'cream,' and *Buttervogel* ('butter-bird') 'butterfly,' especially the *Kohlweissling* ('little white cabbage one')? And why in German or Danish is a butterfly a 'summer-bird'? And is a Russian *bábochka*, or 'little grandmother,' the spirit of the dead arising and fluttering up in the minds of superstitious souls, just like Ancient Greek *psyche*, 'soul' and 'butterfly'? In the Amerindian languages could some "butterflies" have jumped their bounds into other language families? Compare similar-sounding Cree *kâmâmak* with Cherokee *kamama* (also meaning 'elephant'!—perhaps from a frontal view of its extended ears), Lakota *kimîmîla*, and, though unlikely, even Yaqui *cobamu*. And how is it that Turkish *kelebek* and its cognates Mongolian *ervëekhii* and Hungarian *lepke* resemble Ossetic *gælæbu* and Malay *kelembak*?

So take a look at this sampler. I fluttered about the dictionaries trying to get as many showy names as I could but not to the depth of worming my way through the subject and leaving the leafy pages defoliated or the flowers nectarless.

Indo-European:

- Latin—*pāpillo*
- French—*papillon* (/papeeyóⁿ/)
- Spanish—*mariposa*
- Italian—*farfalla*
- Portuguese—*borboleta*
- Romanian—*fluture* (cf. Frisian)
- Albanian—*flutur, fluturake*
- Armenian—*t'it'eñig, t'it'eñan, t'fan, t'funk*
- Greek—*petalódudha*
- Irish Gaelic—*peldhleacán, félleacán*
- Manx—*follylcan*
- Welsh—*pill-pala*
- Breton—*balafenn*
- German, Yiddish—*Schmetterling*; dialect: *Sommervogel* ('summer-bird')
- Afrikaans—*skoe(n)lapper* ('shoe rag[ger]')
- Dutch—*vlinder*
- Frisian—*flinter* (base for next?)
- English—*butterfly*
- Old English—*ffalðe*
- Old High German—*ffaltra*
- Old Norse—*ffirldi*
- Swedish—*fjäril*
- Danish, Norwegian—*sommerfugl* ('summerbird')
- Latvian—*taurinš*
- Lithuanian—*drugys, plesztekė*
- Wendish (1710)—*netjparr* (/netjpar/), (not-that bird'), also cabbage butterfly
- Russian—*bábochka* ('little grandmother')
- Polish—*motyl* (orig.: 'worm causing illness in sheep')
- Czech—*motýl*
- Serbo-Croatian—*leptir*
- Bulgarian—*pepe rúda*
- Ossetic—*gælæbu*
- Persian—*parwānah*
- Sanskrit—*citrāpataṅga* ('speckled-flying')
citrāṅga ('having a variegated body')
pataṅgama,
pataṅgabhedā ('flying-breaking'),
sapaksa kīta ('having-wings worm')
- Pāli—*cittapaṅga*
- Hindi—*titil, tīrt; prajāpati* ('lord of creatures')
- Sinhalese—*samāṇeyāⁿ*

Ural-Altaic:

- Finnish—*pérhonen*
- Hungarian—*lepke*
- Ostyak Samoyed—*lāntjṛā, lontjṛā;*
or *Selkup (Tas)*—*bábochka* (Russian)
- Turkish—*kelebek*
- Mongolian—*ěrvëekhii*
- Korean—*nabi*
- Japanese—*chō, chōchō*
- Georgian—*p'ēp'ell* (native word);
p'ārvana (cf. Persian)

Basque—Inguma

Dravidian:

Tamil—vanatipúchi

Afroasiatic:

Arabic—farāsha

Hebrew—parpar

Ethiopian (G'ez)—?hāsēn (cf. Arabic root hsn = 'pretty?')

Berber (Shilh)—s^elem agg^uren ('suck-in flour or meal')

Bantu:

Swahili—kipepeo

Austro-Asiatic:

Cambodian—mè:-?əmbau (mè: is with insect names)

Vietnamese—con bư^om, (con = 'living creature'), bư^om bư^om

Sino-Vietnamese—hồ điệp

Sino-Tibetan:

Chinese (Mandarin)—húdlé; colloquially: hùtler

(Cantonese)—oō-díp

(Taiwanese)—lā-à ('butterfly'+noun of familiarity)

Lao—mǎng kǎ bǎu

Zhuang—bung⁵ba³, kap⁷fm⁴

Buyi—tu²ba⁴

Thai—philsie

Tibetan—phye-ma-leb

Austronesian:

Chamorro (Guam)—abábang

Tagalog—paruparó

Indonesian—kupu-kupu

Malay (Johore)—kupu-kupu; a large one: kĕlēmbak

(Penang)—rama-rama; kĕlēmak

Javanese—kupu

Hawaiian—pulelehua

Samoan—pepe (e = /ay/)

Eskimo

1. tarralkítak
2. tok a luk'a sah
3. chah a lin'a tuk
4. chuk a mlk'atok

Macro-Algonquian:

Algonquian:

Mahican (1790s)—maghmachásin

Delaware—amookás

Nanticoke—aumāūncohunt

Powhatan (1612)—manaangwas

Virginian (1585)—mamankanols

Miami(-Illinois)—kokatanggelangquóh

Illinois (1700s)—cacatakiringwetchikl ('those who have marked wings')

Cree—kāmāmak

Chippewa—memēngwa (or me me gwł)

Menominee—mīmīkwæw

Muskogean:

Choctaw—littau pooshlck; hatapushlk

Chickasaw—huttuil poosick

Creek—tutullobe

Atakapa—uadleuāi

Chitimacha—kumetana

Unidentified Amerindian (1790s, Jefferson)—kàh kàhmany

Salishan:

Wenatchee or Columbia—pəl-pal-wíciya (from 'flutter'; c = ch or sh?)

Macro-Siouan:

Iroquoian:

Oneida—caanahwa

Tuscarora—rohsnarò:ro?

Cherokee (1790s)—cun-noo-ta-nuh, com-ma-mah; (recent) kamama (= also 'elephant')

Siouan:

Crow—blri-kyac (c = sh, ch?), mirftacicē

Lakota—kímímla

Osage—dsi-oⁿ' dsi-oⁿ

Keresan:

Acoma—Boral'k'a

Santa Ana—bu'fàika

Aztec-Tanoan:

Tanoan:

Tewa (San Juan)—púwáníní, púgáníní, póráníní, pórámímí, pólámímí, n'ní (Tesuque) (r = front tap; ' = high tone)

Uto-Aztecan:

Nahua(tl), Aztec—papálotl

Hopi—poll; povol-(?)

Sonoran:

Yaqui—cobamu

Mayo—balsé'eborl, valsé'evoll

Tarahumara—maka-ro-a-rl, naka-ro-a-rl

Cora—átzipa'u

Penutian:

Yokuts—laulau, walaptcul (c = sh)

Yaudanchi dial—walwal

Mayan (reconstructed)—*pehpen; *nam

Yucatec—pepen, pepem

Quiché—papé, pèpe

Araucanian—llamp'é dken; cùchl (= little butterfly); tonton ('moth')

Yukian:

Wappo—tsé lakápe

Hokan:

Seri—séenel

Yuman:

Havasupai—kl-ráp

Walapai—hankaráp

Yavapai—hankarápa

Mohave—humnápnap

Maricopa—xanavnáp (x = Bach)

Yuma—xan'á vlyép

Cocopa—smal'yáp

Tipai—ska'l'yápa

Paipai—maskaráp

Na-Dené:

Athabaskan:

Navajo (1910)—k'áilǔgl

(1958)—k'aalogll

Oto-Mangean:

Zapotec(an)—biguldí (gu = g)

Mixtec—tūcuáá (' = low; ' = high)

Tarascan—parácata

Macro-Chibchan:

Chocó—papua, kimbaré

Andean-Equatorial:

Andean:

Alacaluf (1883)—klkeeowl (say it like English)

Tekinica (1883)—yumertele (= Yekinawe??)

Jívaro—wámblishuk

Quechua—płlłpintu

Tupi-Guaraní:

Tupi—panama, papapaná

Guaraní—panambí

Lengua—sellkilk, chokok

Ge-Pano-Carib:

Macro-Panoan:

Chunupí or Suhin—folfol

Guaycurú:

Mbaya—tibelco

Ge:

Kaingang—totógn

Northern Carib:

Makiritare —matuto (all except the blue *Morpho*, which is *mahewa*; they claim it is the same insect continually painting itself with different designs!)

Carl Masthay, St. Louis, Missouri
Submitted via the Idalia Society of
Mid-American Lepidopterists.

THANKS TO THE RETIRING JOURNAL EDITOR

The end of 1991 will mark the end of Boyce Drummond's three years as JOURNAL Editor, although he will continue to serve as an Assistant Editor. Our THANKS go to Boyce for bringing some color to this publication and for maintaining the high standards of the Society. He has been a pleasure to work with on the Editorial Board and a big help to the NEWS Editor. THANK YOU Boyce, from us all.

1990 SEASON SUMMARY CONTINUED

ZONE 12 THE NORTHERN NEOTROPICS: MEXICO, CENTRAL AMERICA, THE ANTILLES. Coordinator: Eduardo C. Welling M.
Contributors: James P. Brock (JB), Keith S. Brown, Kenneth Hansen (KH), Peter Jump (PJ), William Kelly (WK), Keith Koppas (KK), Thomas Kral (TK), Markus Lindberg (ML), Scott McCleve (SM), Douglas Mullins (DM), Steven Prchal (SP), Frank Rutkowski, Michael Smith (MS), George Sutter, Andy Warren, Robert Weich (RW). Weather Summary: Monsoon rains began in mid-June in southern Sonora and continued on into September. Hurricane Diana came in from the east as a simple tropical depression when it crossed the Yucatán peninsula in early August, with the vortex or center passing about 50 km south of Mérida. After entering the Gulf of México it converted itself into a ferocious hurricane entering Veracruz, Hidalgo and nearby states, working itself to the west coast where it went north up the coast into Sinaloa, Sonora, and Arizona & New Mexico, bringing abundant rain to the region. Rain was frequent in the Yucatán Peninsula during the early part of the year to the point where the northern thorn forests had a mid-July rainy season look to them in what should have been the dry season from March to May. In the rainy season, from June on, rain was then lacking and for the third year in a row, it didn't really begin raining seriously until late September. Eight months after Hurricane Hugo in the U.S. Virgin Islands, in spite of peak rainfall, the vegetation was found by Rutkowski to be semi-dormant on account of salt impregnation. Residents believe it will take about 10 years for soil/plant recovery there. NOTE: John T. McBurney submitted a report of collecting during 1966 to 1986, from several localities in Guerrero, Colima, Jalisco, Oaxaca, Yucatán, and Quintana Roo. Since the time period of the report has little to do with the current year's summary, it might best be excluded here. Anyone interested in the listing of species might write directly to Mr. McBurney, 739 Westwood Place, Anaheim, California 92805.

U.S. VIRGIN ISLANDS. At Frederiksted, late May and early June, Rutkowski observed *Leptotes cassius* and *Hemiargus hanno* ovipositing on flower buds and young pods of *Vigna retusa* and flower buds of *Desmodium supinum*, from about 0930 to 1000 hrs in dappled light and with a stiff sea breeze blowing. *Strymon bubastus* males perched on *Vigna* flowers, but were not interacting with the two other species. *H. hanno* larvae found on *Vigna* transferred unhesitatingly to *Desmodium*. Larvae of both species were reared later to adults in New Jersey on Chinese Pea pods. *Siphosturmia* sp. (Tachinidae) was reared from *H. hanno* prepupae on St. Croix. *Anticarsia gemmatalis* (Noctuidae) was reared from larvae found on the leaves of *V. retusa* leaves.

MEXICO. SONORA. The traditional group of Sonora collectors once again had a fine time investigating, and came up with several more state records. *Manduca ochus*, STATE RECORD, 3 km east of Alamos, 23 June (KK,RW); east and west crossings of Río Taymuco, NE of Alamos, 24-25 July (DM,WK). *Manduca kuschei* and *M. languinosa*, east crossing of Río Taymuco, 24 July (DM,WK). *Dolbogone igualana*, 10 km west of Alamos, 21 July (DM,WK); west crossing of Río Taymuco, 25 July (DM,WK). *Sphinx merops*, STATE RECORD, west crossing of Río Taymuco, 25 July (DM,WK). *Sphinx separata*, 13 km WSW of Yécora on new road, 26 July (DM,WK). *Sphinx* near *lugens*, 12 km WSW of Yécora, 27 July (DM,WK); 10.5 km NW of Yécora, 7 to 11 August (JB,SP,PJ). *Sphinx libdocedrus*, second record for the state, 13 km WSW of Yécora, 26 July; 10.5 km NW of Yécora, 7-11 August (JB,SP,PJ). *Adhemarius globifer*, 10.5 km NW of Yécora, 29 June (ML); 7-11 August (JB,SP,PJ); 12-13 km WSW of Yécora, 26 & 27 July (DM,WK); 4 km north of Las Chinacas on the Sonora-Chihuahua border, 23 July (DM,WK). *Xylophanes turbata*, STATE RECORD, 10.5 km west of Alamos, 21 July (DM,WK). *Erinnyis alope*, STATE RECORD, and *Xylophanes pluto*, STATE RECORD, Highway 16, 30 km SE of Río Yaqui, 17 August (TK,RW). *Coloradia luski*, STATE RECORD, 12 to 13 km WSW of Yécora, 26-27 July (DM,WK); 10.5 km NW of Yécora, 7-11 August (JB,SP,PJ). *Coloradia*, new species, 10.5 km NW of Yécora, 27-28 June (MS,KH,DM,ML,PJ,SM), 7-11 August (JB,SP,PJ); 12-13 km WSW of Yécora, 26-27 July (DM,WK); 6 km NE of Yécora, 29 June (PJ,SM). (This species is currently being described by Dr. Claude Lemaire and Michael Smith.) Eighteen spp of Saturniidae were collected 10.5 km NW of Yécora on 27 and 28 June by MS,KH,DM,ML,PJ,SM, including *Antherea polyphemus oculea*, *Copaxa muellerana*, *C. lavendera*, *Automeris metzli*, *A. boudinotiana*, *Paradirphia lasiocampina*, *Syssphinx hubbardi* complex, *S. raspa*, *S. montana*, *Othorene verana*, and *Caio richardsoni*. In the same area on 7 to 11 August, JB,SP, and PJ took many of the same species and *Antherea montezuma*. DM and WK took the second state record of *Copaxa multifenestrata*, 4 km north of Las Chinacas on 23 July, along with *Automeris randa*, *A. iris hesselorum*, *A. colenon*, and *Hylesia continua cressida*.

CHIHUAHUA. The new sp of *Coloradia* found in Sonora was also taken 7.5 km south of Yécora, Son., across the border in Chihuahua on 1 July (PJ,SM).

SINALOA. Warren sent in some more records from his late Dec 1989 to Jan 2, 1990 collecting at Mazatlán. Further interesting records include *Panthiades battus*, *Strymon columella*, *Doxocopa laure*, a *Junonia* [apparently intermediate between *nigrosuffusa* and *coenia*?? (or *evarete*?)], *Anaea callydria*, *Anastrus sepiurnus*, *Polythrix asine*, *Lerodea arabus*, *L. eufala*, *Panoquina fuscina*, *P. panoquinoides*, *Polites vibex*. Warren, at Concordia, on 28 December 1989, collected *J. nigrosuffusa*, *Melanis cepheis* and other common spp. At Copala on the same day, *Parides montezuma*, *photinus*, *Graphium thymbraeus*, *Urbanus dorantes*, *Staphylus mazans*, *Gorgythion begga*, and *Eurema boisduvaliana* were taken.

JALISCO. Warren spent March 28 thru April 2 from Puerto Vallarta to Chinos and Mismaloya, taking about 115 spp, including *Battus laodamas procas* & *polydamas*, *Eurytides epidaus*, *Parides montezuma* & *photinus*, *Papilio anchisiades*, *P. victorinus*, *thaos*, *cresphontes*, *Hesperocharis* ??*pasio*m (or *costaricensis*?), *Itaballia viardi*, *Ganyra josephina*, *Thereus palegon*, *Strymon columella*, *albata* & *bebrycia*, *Arawacus jada*, *Panthiades battus*, *Zizula cyna*, *Theope diores*, *Emesis mandana* & *tenedia*, *Prepona demophon*, *Zaretis ellops anzuletta*, *Anaea electra*, *fabius* & *eurypyle glanzi*, *Temenis laothoe*, *Asterocampa argus*, *Smyrna blomfieldia*, *Colobura dirce*, *Junonia* sp (with blue reflective patches), *Chlosyne hippodrome*, *Anthanassa griseobalis*, *texana*, *Phycoides campestris*, *frisja*, *Adelpha fessonia*, *basiloides*, *massilia*, *phylaca*, *Doxocopa*

laure, Opsiphanes cassina, Heliconius erato petiveranus, Euptychia hermes, Vareuptychia themis, Cyllopsis suivalens, Phanus marshalli, Phocides pigmalion belus, Aguna asander, Mylon menippus, Clito clito, Udranomia kikkawai, Lerema accius, Astraptes anaphus, fulgerator, Cymaenes odilia, Staphylus azteca, Urbanus tanna, Anastrus seipiturnus.

NAYARIT. On March 29, near Bucerias, Warren found many of the forementioned spp plus Copaedoes minima, Erynnis funeralis, Chlosyne lacinia, Melitaea theona, Anartia jatrophae.

MORELOS. Brown in Cuernavaca, in April and November, noted Papilio garamas feeding on avocado, P. pharnaces on Citrus, and Graphium thymbraeus on Annona sp. Also observed flying was P. multicaudatus.

OAXACA. Brown, in the Sierra Mixe near Totontepec and Zacatepec, in April, explored the cloud forests and found Papilio abderus which integrated with garamas going south over the ridge to the city of Oaxaca (where pure garamas flew), with males being recaptured the same day as far as 1300 m away from marking site and back, along rivercourses or road banks with abundant thistle and Eupatorium flowers. These also attracted many Eurytides calliste, whose females were seen inspecting large columnar trees of Magnolia dealbata, a possible food source also for P. esperanza (not surely observed). Also seen were Anetia thirza and three spp of Catasticta. In September, Brown visited the Sierra Chinantla (also known as Sierra Juárez), exploring some new localities. A third instar larva of P. abderus was found on a small Lauraceous tree (not Persea). Hypanartia dione was noted to be a convincing mimic of Anetia thirza in appearance and behavior. Several high-altitude Theclinae were found sitting on a moist new road surface in early morning. At Puerto Eligio, at 800 m elevation, more Philaethris diatonica (n = 67-72) were found on flowers, Hyoscada virginiana was among other usually scarce Ithomiidae; Catagramma casta was common. A mark-recapture study was done on several Parides spp, indicating that P. sesotris was mostly moving through to feed on the abundant Cephaelis flowers while others (Iphidamas, eurimedes mylotes, etc.) were small resident populations.

YUCATAN. Welling noted that in May, in his back yard in Mérida, there was an unusual showing of microlepidoptera, small beetles, and Elateridae at blacklight. The late season show of butterflies in Mérida during 1988 and 1989 did not materialize during late 1990.

QUINTANA ROO. Collecting at classic localities was fair until a tropical depression, that eventually turned into Hurricane Diana, crossed the Yucatán Peninsula and entered the Gulf of México in early August. Winds were only about 40 to 60 kph in the extreme north of Quintana Roo, and about 60 to 80 kph a little further south; this depression's center passed 50 km south of Mérida in Yucatán. After its passing, insects disappeared as if by magic, with nothing flying by day or night, and it was useless to spend time out in the woods with mercury vapor or blacklights. Just as the 1988 hurricane probably did not have any effect on the late season population explosions, Welling doubts that the depression soon to become the hurricane had anything to do with the slacking off to nothing of insect populations, as these things are a result of several factors over longer periods of time. In late July a series of males of Lonomia cynira were collected at blacklight; females coming only to mercury vapor light in a village.

From The Editor's Desk

June Preston



This issue introduces the Society's two new editors, Stephanie McKown for the NEWS and Dr. John Brown for the JOURNAL. I am sure they will both be a credit to the Society and to our publications. Although John Brown will take over on Jan 1, 1992 beginning work on Vol 46 of the JOURNAL, Stephanie McKown will begin sooner with the No. 2 March/April 1992 issue of the NEWS. She will really be getting her feet wet on the Season Summary issue. Please continue to send all material for the NEWS to me through December 1st of this year. After that, direct your ads, items, notices, etc. to Stephanie McKown, 650 Cotterell Dr, Boise, ID 83709 USA. I shall try to publish everything I still have on my desk in this, and in the next, issue. If perchance I do have something left over that won't fit in the space available, I will send it on to Stephanie so that she can use it.

One of the pluses of the editor's task is the interesting letters that cross my desk. I share one with you now that invites comments.

Dear June,

During early August of this year (1991) I noticed a number of Monarchs frequenting parked motor vehicles around the suburbs north of Boston, MA. They seemed particularly attracted to taillight assemblies, although I also saw one at a front marker light. In every case the butterflies were exploring the orange plastic lenses used in these assemblies. Weather conditions ranged from full sun at noon to bright conditions (but not direct sun) as late as 6:00 PM or so. I didn't take special notice of most of the vehicles involved, although the taillights of one 1991 BMW stuck in my mind. Perhaps the dyes used in manufacturing the orange lenses resemble some flower to which Monarchs are attracted. It's also possible that the butterfly mistakes the bright orange lamp assembly

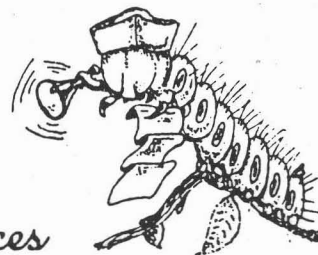
for a potential mate, although to me the lenses seemed to be the wrong shade of orange and somewhat too bright.

Using automobiles as a butterfly attractant is a novel concept, especially suitable for the lazy observer or collector. Does anyone else have any experience with this collecting technique?

By the way, 1991 has been a great year for Monarchs in this area.

Steve Goldstein
Reading, MA

Notices



LOST MEMBER

Dr. Albert D. Maizels' mail to Boca Raton, Florida is being returned. Please notify Julian Donahue (address on back cover) if you know his present address.

MITCHELL'S SATYR PROPOSED FOR ENDANGERED STATUS

The U.S. Fish and Wildlife Service (Service) has now formally proposed Mitchell's satyr (*Neonympha mitchelli*) for protection as an endangered species under the Endangered Species Act of 1973, as amended.

The Service has been concerned with the status of *N. mitchelli* since the mid-1970's. Based on available data the species was classified as a "3C" species in 1984, indicating that the taxon was sufficiently abundant that protection under the Act was not warranted. Partly in response to additional analysis done during a status review of insects in

the eastern portions of the United States, *N. m. mitchellii* was upgraded to a category 2 candidate species in 1989. This reclassification did not provide any legal protection for the species, but indicated the Service's increased interest in obtaining additional data on the species' status which might provide justification for listing it as threatened or endangered.

In 1987, the Service's Twin Cities (Region 3) Office contracted with the Michigan Department of Natural Resources for a rangewide status report for *N. m. mitchellii*. That report, which was based on field checks of potential sites during 1987-90, indicated that the subspecies has declined substantially from the 30 historical sites to 15 current sites, two of which were not historically known. Anecdotal accounts and circumstantial evidence have led the Service to conclude that collection (both legal and illegal under the laws of several states) has caused the extirpation of the subspecies at several sites and continues to threaten other sites with local extinction. As a result, the subspecies was immediately elevated to category 1 candidate status, indicating that the Service had sufficient data to justify listing the species as a threatened or endangered species.

When the Mitchell's satyr was elevated to category 1 status, its 1991 flight season was imminent. The Service initiated a temporary emergency listing to immediately protect the Mitchell's satyr from collection. That emergency listing was published in the *Federal Register* on June 25, 1991, and expires on February 25, 1992.

During this 240-day period, the Service is actively working to provide long-term protection for the subspecies through the normal process of listing a species as threatened or endangered. That process was initiated with the publication of a notice proposing the subspecies for listing as an endangered species in the September 11, 1991, *Federal Register*. That publication begins a 60-day comment period, during which the Service encourages the interested public to submit additional data or comments on the proposed listing of the subspecies.

Both the emergency listing and the proposed listing deal only with *N. m. mitchellii*. The other North American subspecies of *N. mitchellii*, *N. m. francisci*, may also warrant protection under the Act. However, status information for that taxon is not as current and there may be a need for additional field surveys prior to making a listing determination. The Service decided that data for *N. m. mitchellii* justified immediate listing, so that the two subspecies are being treated separately at this time. Anyone having relevant data for *N. m. mitchellii* is asked to include those data in their response to the *N. m. mitchellii* proposal.

Following the 60-day comment period, the Service will review any new information and all comments we receive. Based on this review, we will decide if listing *N. m. mitchellii* as an endangered species is warranted. A decision to list the species will result in a *Federal Register* publication of a final rule establishing the species as endangered. If listing is completed, the Service promptly will begin the development of a recovery plan that will guide our efforts to return the species to a level at which Federal protection is no longer warranted.

The 240-day emergency listing of the species currently prohibits collection of any Mitchell's satyr specimens and requires consultation with the Service for any Federal activities that may affect the subspecies or its habitat. This protection will continue if the subspecies is listed as an endangered species. Lepidopterists and others desiring to collect or otherwise "take" specimens may be able to obtain permits for such activities from the Service. However, permits may be denied if the proposed activities are not expected to enhance the conservation and recovery of the subspecies. Permit inquiries should be addressed to the Service's Twin Cities Regional Office.

Lepidopterists should be aware that, while possession of a legally "taken" Mitchell's satyr continues to be legal, interstate commerce (or attempts at such commerce) and/or export of the subspecies is no longer legal, unless the specimens can be shown to be "Pre-Act wildlife." Such specimens must have been "in captivity" on December 28, 1973, and must not have been held "in the course of a commercial activity."

The Service appreciates the field surveys for Mitchell's satyr that have been carried out by private and amateur

entomologists such as the Ohio lepidopterists and several private individuals in Michigan and other states. Individuals such as these have contributed a great deal of data on this subspecies and other rare butterflies and moths. Without the help of these individuals, the Service would be unable to determine which species need the protection of the Act, and would probably be unable to complete surveys to locate additional sites occupied by these rare taxa. The Service looks forward to continuing this cooperative relationship, and firmly believes it is the best opportunity to save many of our country's rare insects.

Anyone having additional information on this subspecies is asked to submit it to the Service's Twin Cities Regional Offices before the 1992 flight period. Mr. Craig Johnson, Division of Endangered Species, U.S. Fish and Wildlife Service, Federal Building, Fort Snelling, Twin Cities, Minnesota 55111. Telephone: 612/725-3276.

SMITHSONIAN RESEARCH FELLOWSHIPS IN SCIENCE

The Smithsonian Institution announces its research fellowships for 1992-1993 in the fields of History of Science and Technology and Biological Sciences. Smithsonian Fellowships are awarded to support independent research in residence at the Smithsonian in association with the research staff and using the Institution's resources. Predoctoral and postdoctoral fellowship appointments for six to twelve months, and graduate student appointments for ten weeks are awarded. Proposals for research in the following areas may be made:

History of Science and Technology: natural history.

Biological Sciences: Animal behavior and pathology; ecology; environmental studies; evolutionary biology; marine biology; natural history; paleobiology; systematics; and tropical biology.

Applications are due January 15, 1992. Stipends supporting these awards are \$26,000 per year plus allowances for senior postdoctoral fellows; \$21,000 per year plus allowances for postdoctoral fellows; \$13,000 per year plus allowances for predoctoral fellows; and \$3,000 for graduate students for the ten-week tenure period. Pre-, post-, and senior postdoctoral stipends are prorated on a monthly basis for periods of less than twelve months.

Awards are based on merit. Smithsonian fellowships are open to all qualified individuals without reference to race, color, religion, sex, national origin, age, or condition of handicap of any applicant. For more information and application forms, please write: Smithsonian Institution, Office of Fellowships and Grants, Suite 7300, 955 L'Enfant Plaza, Washington, DC 20560. Please indicate the particular area in which you propose to conduct research and give the dates of degrees received or expected.

GRANTS FOR NONGAME WILDLIFE RESEARCH IN MINNESOTA

The Minnesota Nongame Wildlife Program is soliciting proposals for projects to be conducted during the 1992 and/or 1993 field seasons (or longer). Proposals should be for work contributing to the conservation and management of nongame wildlife (vertebrate or invertebrate) in Minnesota. High priority will be given to projects focusing on state endangered, threatened, or special concern species, native grassland species, wetland/aquatic species, and topics relevant to the management of state parks. Appropriate projects may include censuses/surveys, studies of life history/population dynamics/habitat requirements, assessment or identification of habitat quality/quantity, design of long-term monitoring programs, development/evaluation of land use/management techniques, and a wide variety of other topics. Awards average \$3000 per year, but requests up to \$10,000 per year will be considered. The deadline for submitting proposals is January 1, 1992. Decisions will be announced no later than March 1, 1992. For program guidelines, proposal format, list of research ideas, E&T species list, and other information, please contact: Richard J. Baker, Nongame Wildlife Program, Minnesota Department of Natural Resources, Box 7, 500 Lafayette Road, St. Paul, MN 55155-4007 (or call at 612-297-3764). Funding comes from

contributions to the Minnesota Nongame Wildlife Tax Checkoff and Minnesota State Parks merchandise sales.

SMITHSONIAN MINORITY INTERNSHIP PROGRAM

Internships, offered through the Office of Fellowships and Grants, are available for students to participate in research or museum-related activities for periods of nine to twelve weeks during the summer, fall, and spring. U.S. minority undergraduate and graduate students are invited to apply. The appointment carries a stipend of \$250 per week for undergraduate and \$300 per week for graduate students, and may provide a travel allowance. For applications and deadline information, please write: Smithsonian Institution, Office of Fellowships and Grants, Suite 7300, 955 L'Enfant Plaza, Washington, DC 20560.

BIOLOGICAL SURVEY — JAMAICA 1992

Caribbean Wildlife Surveys, in association with the Natural History Division of the Institute of Jamaica, announces a biological survey of the montane rainforests of Jamaica commencing April 1992. Primary groups for study are moths and treefrogs at night and butterflies and anoline lizards by day. Participants will join Jamaican scientists in creating data bases to be used in determining boundaries for national parks and areas of special interest for conservation. Strong emphasis will be placed on photography in addition to the collection of representative samples from each of five main forest sites.

Participation is sought from scientific institutions as well as private individuals; teams of 12-16 persons are required monthly. Dates of the first three surveys are:

April 27 — May 7, 1992

May 25 — June 4, 1992

June 22 — July 2, 1992

Costs, excluding airfares, are \$1,650.00 per person per survey. For details contact Dr. Tom Turner, 2321 State Road 580, Suite 6, Clearwater, Florida 34623.

SEASON SUMMARY, INSTRUCTIONS TO CONTRIBUTORS

Format: type double-spaced, one side of paper only; please list, rather than writing a narrative; use separate sheet for each state.

What to report: species of unusual occurrence with regard to geography, flight season, altitude, numbers; "choice" species; migrations; new food-plant observations; unusual behavior; aberrations. Contributors should be able to defend accuracy of determinations, assertions re county records, etc.

How to report: segregate by states or provinces; separate butterflies from moths; give name of species, locality (at least as definable on topographical or road map), county, date of record, how attracted or captured, if pertinent (primarily for moths).

Names and sequences: use Ferris, Supplement to A Catalogue/ Checklist of the Butterflies of America North of Mexico (Lep. Soc. Memoir No. 3, 1989) for butterflies, MONA list (Hodges, 1983), for moths or the most up-to-date reference available to you for each group. List the species in the same sequence as in that reference (this will save the coordinator an immense amount of time). Cite the name of any expert who defined a difficult or unusual species for you.

Records from prior years, dated as such, may be included, if proper determination resulted in delay, or to respond to a statement in a previous Summary.

When to report: reports must reach coordinator by 5 January 1992 in order to allow him the next six weeks to compile data. EARLIER REPORTING IS ENCOURAGED, so that coordinator will have time to inquire about any data that are unclear.

Where to send reports: The 13 numbered and defined zones with the Coordinators' names and addresses follow this notice. Please send the state/province report directly to the Coordinator for the appropriate area.

All contributors will be acknowledged by name in the summary. However, the balance of significance vs. space available will determine whether a particular record is included by the coordinator.

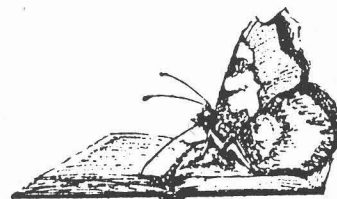
NOTE: A record as used in the summary should mean the first time known to the collector that that species had been captured in a given province, state or county.

LIST OF ZONES AND COORDINATORS

1. **FAR NORTH** (Eastern Siberia, Alaska, Yukon, NWT, Greenland): Ken PHILLIP, Inst. of Arctic Biology, Univ. of Alaska, Fairbanks, AK 99701 USA.
2. **PACIFIC NORTHWEST** (OR, WA, ID, B.C.): Jon SHEPARD, Sproule Creek Rd., R.R. 2, Nelson, B.C., V1L 5P5, CANADA.
3. **SOUTHWEST** (CA, NV, AZ): Bob LANGSTON, 31 Windsor Ave., Kensington, CA 94708 USA.
4. **ROCKY MOUNTAINS** (Alta, MT, WY, UT, CO, NM): Ray STANFORD, 720 Fairfax St., Denver, CO 80220 USA.
5. **PLAINS** (Sask., Man., ND, SD, NE, KS): Ron A. ROYER, Division of Science, Minot State University, Minot, ND 58701 USA.
6. **SOUTH CENTRAL** (OK, TX, AR, LA): Ed KNUDSON, 8517 Burkhart Rd., Houston, TX 77055-5717 USA.
7. **ONTARIO/ QUEBEC:** Ross LAYBERRY, 6124 Carp Road, RR #2, Kinburn, Ontario, K0A 2H0, CANADA.
8. **MIDWEST** (MN, WI, MI, IA, MO, IL, IN, OH, KY, WV): Les FERGE, 7119 Hubbard Ave., Middleton, WI 53562 USA.
9. **SOUTHEAST** (TN, MS, AL, VA, NC, SC, GA, FL, Bermuda): Andy BECK, NDVECC, Box 43, Naval Air Station, Jacksonville, FL 32212 USA.
10. **NORTHEAST** (NF, Labr., Maritimes, New England, NY, PA, NJ, MD, DE, DC): Dave WINTER, 257 Common St., Dedham, MA 02026 USA.
11. **HAWAII/ PACIFIC ISLANDS:** J. C. E. RIOTTE, Dept. of Entomology, Bernice P. Bishop Museum, P.O. Box 19000-A, Honolulu, HI 96817 USA.
12. **NORTHERN NEOTROPICS** (Mexico, Cent. Am., Antilles): Eduardo WELLING M., Apartado Postal 701, Merida, Yucatan, MEXICO.
13. **SOUTH AMERICA:** Boyce DRUMMOND, Natural Perspectives, P.O. Box 9061, Woodland Park, CO 80866 USA.

EDITOR'S NOTE: It frequently takes first class mail 3 to 4 weeks for delivery in Canada, so mail your Canadian records early with this in mind. The same is true for mail to reach the U.S. from Canada so give the Canadian based coordinators plenty of time. It takes over a week for mail to reach Mexico also. Also, note that the deadline for material to be in the hands of the coordinators is Jan. 5th and material received by them after this date is apt to be left out of their reports altogether.

Books



MEMOIR 4 HITS THE STANDS

Number 4 in the Society's *Memoir* series, *Foodplants of World Saturniidae*, is now available. The book lists more than 500 saturniid species-level taxa worldwide feeding on more than 1000 plant species, as cataloged by author Steve Stone from published and unpublished sources. It is a handsome book of 201 pages measuring 6¼ by 9¼ inches crafted to high standards by the printers of the *Journal*. It features a dazzling front cover in full color showing a larva of *Citheronia regalis* rendered by artist and Society member John Cody, a frontispiece of color photographs of more larvae, and a foreword by renowned saturniidologist Claude Lemaire.

Prices are as follows: Members and subscribers, \$7.20 plus \$2 mailing (\$3 outside U.S.). Nonmembers, \$12 plus \$2 mailing (\$3 outside U.S.). To order, send check or money order in U.S. dollars to the publications coordinator, Ron Leuschner, 1900 John St., Manhattan Beach, CA 90266-2608 U.S.A.

NAIC HYPERCARD STACK NOW AVAILABLE

The North American Insect Collection (NAIC) HyperCard stack is now available. The NAIC Stack is a database in Apple's HyperCard format designed to run on Macintosh computers. This easy to use program will be useful to anyone needing to access data about insect collections in North America. Data on over 100 collections in Canada, the United States and Mexico is presented in an easy to access format, with information pertaining to addresses, contact persons, groups of expertise, standard collection acronyms, strengths of collections, phone and fax numbers, e-mail addresses, and a user-filled notes field. Searches for any item in the database can be made very quickly and the results printed out in a 3x5 card format for later use.

The NAIC stack requires Claris' HyperCard 2.0 or later to run. Any older version of HyperCard (pre-2.0) will not open the stack. Users can easily update information and add to the stack to suit their own interests.

A copy of this database will be posted in the public Macintosh archives at the University of Michigan and will therefore be available for downloading to your computer via FTP transfer over Internet. The address is: mac.archive.umich.edu. Any updated versions will be available there as well.

For those wanting the program on disk, we are charging only \$7.50 to cover our costs of the project and disk duplication, packaging and mailing. To order a copy of the program on disk, please make your payment to the University of Michigan, and send to: Insect Division, Museum of Zoology, University of Michigan, Ann Arbor, MI 48109-1079.

Mark O'Brien
Collections Coordinator

NEW BOOK ON ARIZONA BUTTERFLIES

Butterflies of Southeastern Arizona by Richard A. Bailowitz and James P. Brock has just been published by Sonoran Arthropod Studies, Inc. The book covers 246 species recorded from southeastern Arizona and provides details on their habits, distribution, flight periods and foodplant preferences including previously unpublished information. It includes four color plates featuring 90 beautiful butterflies and 624 custom printed, life-size black and white photos clearly showing diagnostic characters. With two maps and descriptions of 'hot spots' in the rich mountain islands of southeastern Arizona and indices to butterflies and larval foodplants, the work is a must for both novice and experienced butterfly watchers.

Books may be ordered directly from the publisher for \$32.95 postpaid (\$29.95 + \$3.00 p/h). Send to SASI, P.O. Box 5624, Tucson, AZ 85703 or phone (602) 883-3945. MasterCard and Visa orders are welcome.

NEW BOOK

Butterflies of Borneo, Volume 2, Part I (Lycaenidae) and Part II (Hesperiidae), edited by Kazuhisa Otsuka. Volume I was reviewed by Thomas C. Emmel in JLS 44(2):105-106, and this volume has the same format and high quality. The two parts are bound separately, and come in a handsome slipcase. Part I, by Yasuo Seki, Yusuke Takanami and Kiyoshi Maruyama, features color photographs of nearly 400 species, most showing the dorsal and ventral surfaces of both sexes, for a total of nearly 1600 individual photos. Part II, by Kiyoshi Maruyama, features color photographs and more than 200 species, again showing both surfaces of the male and sometimes the female. Part II also includes the Addendum of Volume I, by Kazuhisa Otsuka. Available from the Tobishima

Corporation, 2, Sanban-cho, Chiyoda-ku, Tokyo 102, Japan. Price unknown, but available at the actual cost. Highly recommended to anybody interested in the butterflies of the Indo-Australian region.

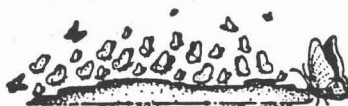
Charles Bridges
Urbana, Illinois



Research Notice

● **NEEDED:** livestock for my graduate work on particular aspects of the chemical mediation of butterfly-hostplant evolution. The particular species that I am working on is *Euptoieta hegesia hegesia* from Jamaica, a host specialist on *Turnera ulmifolia* and a variety of *Passiflora* species. I am interested in obtaining rearing and experimental stock of *E. claudia* as a generalist contrast. I need ova, larvae or pupae, collection location and the usual hostplant information. My intent is to rear through a laboratory generation or two so any life stage is OK. Additionally, I am interested in obtaining any information on, and/or living material of, *E. hortensia* Blanchard, reported from Uruguay and Argentina, and *E. bogotana* Staudinger, reported from Colombia. Along with my ecological work on chemical ecology I am interested in the systematics of this small group of Argynninae, and how they "fit" in with the rest of the Nymphalinae and the Heliconiinae.

I will need to provide import permits to any potential suppliers and will pay all transport costs so anyone who answers the notice will need to contact me before they obtain any live animals. If you require additional information, please do not hesitate to call or write. Phil Schappert, Biology, Lumbers 204, York University, 4700 Keele St., North York, Ontario M3J 1P3, Canada. Phone (416)716-2100 ext. 33492.



Forthcoming Meeting

**LEPIDOPTERISTS' SOCIETY 43RD ANNUAL MEETING
JUNE 25-28, 1992, EAST LANSING, MICHIGAN**

Plan NOW to attend the 1992 Lepidopterists' Society 43rd Annual Meeting in East Lansing, Michigan, on the beautiful campus of Michigan State University. The meeting will be co-sponsored by the Department of Entomology, MSU, and the Michigan Entomological Society.

The meetings will be held in the Natural Science Bldg., which contains the large entomology collection rich in the Great Lakes and India lepidoptera fauna. Two symposia are planned: Ecological and Evolutionary Aspects of Oviposition Behavior, and Survey and Conservation of Regional Lepidoptera. Campus dorms and meals will be available at modest charges. Two field trips are planned following the meetings—to southwestern and northern counties. Registration forms and more information on the Meeting will appear in the January NEWS, so mark your calendar NOW!

For more information, contact Fred Stehr, Dept. of Entomology, MSU, East Lansing, MI 48824-1115.

New Members



ALBRIGHT, JOHN (Director): Maine Natural Heritage Program, P.O. Box 266, South Freeport, ME 04078-0266.

- BOYLE, RICHARD J., Jr.: 1314 Marquette Avenue, #3102, Minneapolis, MN 55403.
- BRADSAW, BRUCE: 29223 Vickie Drive, Excelsior Springs, MO 64024.
- BROWN, CRAIG (M.D.): 170 East Main Street, Port Jervis, NY 12771.
- CALVERT, WILLIAM H. (Dr.): 503 East Mary Street, Austin, TX 78704-3142.
- CHILSON, ROBERT: 10122 Hangman Valley Road, Spokane, WA 99204.
- D'ALESSANDRO, JUAN CARLOS: Barragan 688, 1408 Buenos Aires, ARGENTINA.
- DEAVES, CLAUDE: Tropical Insects & Butterflies Suppliers, Calcutta Road #2, Post Office, Freeport, TRINIDAD, W.I.
- DISNEY, KATHRYN K.: 24 Towne Road, Boxford, MA 01921.
- FAIRBROTHER, MARK: 129 Meadow Road, Montague Center, MA 01351.
- HOSHINO, AKIRA: 2864-3 Naracho 2-406, Midori-ku, Yokohama, Kanagawa 227, JAPAN.
- HUMPHREY, CLIVE W.: 10 Mopane Road, Morningside, Mutare, Maniualand, ZIMBABWE.
- JOHNSON, STEVEN: 1068 Reagan Street, Sunbury, PA 17801.
- KOSHLAND, STEPHEN (D.D.S.): 9108 Delmar, Prairie Village, KS 66207.
- LINDEL, RICHARD: P.O. Box 7465, Torrance, CA 90504.
- MACKEY, JOHN P.: 25208 Rayburn, Warren, MI 48089.
- MALVER, OLAF (Ph.D.): 6341 Longcroft Drive, Oakland, CA 94611.
- MILES, MARK W.: 15516 Hilliard, Lakewood, OH 44107.
- MURRAY, JOHN J.: 911 Clymer Court, Bel Air, MD 21015.
- OTT, JANET L.: 6505 Scaggs Road, Owings, MD 20736.
- PARTLOW, JANET: 107 Rogers NW, Olympia, WA 98502.
- SHEPHERD, JULIAN (Prof.): Biology Department, State University of New York, Binghamton, NY 13902-6000.
- SIEW, NUTHA: 92 Leboh Perajurit 2, Ipoh Garden East, Ipoh 31400, MALAYSIA.
- TEICHNER, OZZIE (Director): Canadian Organization for Tropical Education & Rainforest Conservation, P.O. Box 335, Pickering, Ontario L1V 2R6, Canada.
- TORRES BAUZA, JORGE A.: Urb. Cabrera B-48, Utuado, PR 00641.
- WALKER, HOMER L.: Rural Route 14, Box 651, Moore, OK 73165.
- WEGENAST, CAROL: 179 Birch Street, Redwood City, CA 94062.
- WOOLEY, ROBERT L.: P.O. Box 144, Silver Lake, OR 97638.
- GALLAGHER, ANDREA L. (New Last Name—Formerly Smith): 6724 South Littleton Drive, Indianapolis, IN 46241.
- GREGORY, BENM. Jr. (Dr.): Rural Route 01, Box 300, Indian Trail, NC 28079.
- HANEY, DONALD L.: 483 East 1800 South, Orem, UT 84058-7962.
- McCLAIR, LESLIE M.: 1616 Nash Road, Courtice, Ontario L1E 2K9, CANADA.
- McGIFFEN, KATHRYN C.: Rural Route 01, Box 175, Northridge Drive, Morris, MN 56267.
- MEDINA, MIRIAN: Dept. of Zoology, The University of Texas at Austin, Austin, TX 78712-1064.
- MITCHELL, GARY L.: 198 Locust Street, #604, Lynn, MA 01904.
- MOSHER, FREDERICK C.: 2627 North Mozart, Chicago, IL 60647-1739.
- MUNROE, E. G. (Dr.): 3093 Barlow Crescent, R.R. #1, Dunrobin, Ontario K0A 1T0, CANADA.
- MURASE, TAKUHEI (M.D.): 10-15 Minamiya Macho, Showaku, Nagoya 466, JAPAN.
- NECK, RAYMOND W. (Dr.): 5603 Effingham, Houston, TX 77035.
- NEELY, JOHN D.: C.P.O. Box 2626, Oral Roberts University, Tulsa, OK 74171.
- PEERY, T. RITCHIE (D.D.S.): 1304 Ware Road, Richmond, VA 23229.
- PHILLIPSON, DONALD E.: 665 Cherry Street, Denver, CO 80220-5015.
- REISER, JIM: 7836 Aspen Court, Omaha, NE 68157-3014.
- REISS, HANS W.: P.O. Box 3486, Vista, CA 92085-3486.
- RICH, MARK: 1026 Portage Street, Stevens Point, WI 54481.
- SCHIFF, NATHAN M. (Dr.): 13031 Old Stage Coach Road, #2818, Laurel, MD 20708.
- SKALSKI, RICHARD J.: 1685 Palm Avenue, Redwood City, CA 94061.
- SMITH, ANDREA L.: See Gallagher, Andrea L. [name change].
- VORNHOLT, TORY: 4504 High Grove Court, Acworth, GA 30101.
- WHITFORD, FRED: 821 North Chauncey, West Lafayette, IN 47906.
- YORK, CLAYTON: Lot 4 Valdora Road, Valdora 4561, Queensland, AUSTRALIA.

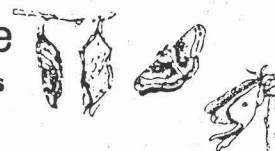
Address Changes



- AIELLO, ANNETTE (Dr.): Smithsonian Tropical Research Institute, Unit 0948, APO AA 34002-0948.
- BORCHARDT, MARTHA J.: 1026 Portage Street, Stevens Point, WI 54481.
- BROWN, BOB: Butterflies & Exotic Insects, 1000 South Illinois, Suite 1102, Mason City, IA 50401.
- BOUTON, DAVID W.: P.O. Box 158, Davenport, NY 13750-0158.
- BUSBY, ROBERT C.: 7 Countryside Way, Andover, MA 01810.
- CASSEL, WILLIAM S.: 2515 Varner Drive NE, Atlanta, GA 30345-1571.
- CHENG, LIN CHIH: P.O. Box 4-36, Yungho, Taiwan 23466, REPUBLIC OF CHINA.
- DANA, ROBERT P.: 4516 18th Avenue South, Minneapolis, MN 55407-3618.
- DAVIS, RICHARD E.: P.O. Box 15, Buda, TX 78610-0015.
- ELLISTON, MIKE: 4 Eastmount Drive, Winnipeg, Manitoba R2N 3X1, CANADA.
- ELLSBURY, MICHAEL M. (Dr.): USDA-ARS No. Grain Insects Research Lab., Rural Route 03, Brookings, SD 57003.
- EVANS, DAVID L.: 2616 Lincoln Drive, Montoursville, PA 17754-9510.
- FISCHLER, RICHARD F.: 184 West Oak Grove Street, Juneau, WI 53039.

The Market Place

Buy • Sell • Exchange • Wants



Items submitted for inclusion in this section are dealt with in the manner set forth on page 9 of the Jan/Feb 1991 NEWS. Please note that in keeping with the guidelines of the Society, henceforth no mention of any species on any threatened or endangered species list will be accepted in these items. This will include all Ornithopterans now and for the foreseeable future. Items will be accepted from members only and will be printed only once unless entry in the maximum of two successive issues is requested. Please keep items short. A maximum of 100 words is allowed. SASE in an ad stands for self addressed stamped envelope.

The Society, as always, expects all notices to be offered in good faith and takes no responsibility for the integrity of any advertiser. Any disputes arising from such notices must be resolved by the parties involved outside of the structure of the Society.

FOR SALE OR EXCHANGE: *Catocala ova* from the midwest, *C. relictata*, *C. amatrix*, *C. cara*. SASE please. James Mouw, 245 Sarah Ave, Iowa Falls, IA 50126.

FOR SALE/EXCHANGE: Pupae/cocoons of *Sat. pyri*, *Cric. argia*, *Ant. mylitta*, *Sat. pavonia*, *E. versicolora*, *Sph. ligustri*, *S. ocellata*, *H. euphorbiae*, *C. galli*, *P. elpenor*, *H. convolvuli*, *I. taco* & *aeae*, *Pap. machaon*, and perhaps also *Arg. mimosae*. Write to J. P. Kazenbroot, Beethovengarde 77, 5344 CD Oss, Netherlands. Phone 4120-31235.

FOR SALE OR EXCHANGE: Cocoons/pupae of Hyalophora cecropia, Callosamia promethea, Anisota senatoria and Hyphantria cunea; Ova of Bombyx mori. Contact Kenneth R. Knight, 433 Brady N.W., Comstock Park, Michigan 49321 USA or Phone (616) 784-6243.

FOR SALE: Insect cabinet on short legs, pine and pine veneer on particle-board. Single-stack, ca 5 ft tall. 20 drawers, inner size 52x52 cm. Custom-built in 1975, in very good shape. Please contact: Dr. Olle Pellmyr, Dept. Biological Sciences, University of Cincinnati, Cincinnati, OH 45221-0006. Phone (513) 556-5696 (day), 821-3287 (eve).

AVAILABLE preferably for EXCHANGE, LIVE MATERIAL and BRED IMAGOS of better and rare Papilionidae and Parnassius of S. Europe, I. podalirius, P. machaon, Z. polyxena ssp. pupae and other rarities, FOR rare Parnassius from Asia, Alaska. I also want rare Attacidae of Attacus, Argema, Coscinocera, or better, Rothschildia and Polytisana (live material only). Accepted in exchange would also be lots of rare exotic butterflies from S. America and from Indo-Australian regions. ALSO AVAILABLE for specialists, my last 2 articles on Parnassius with two beautiful color plates for \$15 to cover postage and color costs. Nardelli Uberto, Via Cosma e Damiano 9/2, I-38100 Vela-TRENTO, Italy.

FOR SALE: Butterflies from California, Arizona and Israel. ALSO FOR EXCHANGE: Bred Hemileuca nevadensis from southern California for all other species of Hemileuca except H. e. electra. SASE please. Bob Wuttken, 9506 National Blvd., Palms, CA 90034.

WANTED TO PHOTO: Live ova/larvae/pupa of Leps. from other areas. Most wanted: Papilios, Parnassius, Pierids, Nymphalidae: (Fritillaries esp. Anaea sp., Marpesia petreus, Admirals, A. bredowii, Hypol. missippus, Anartia jatrophae, Angle wings, Eunica), Lycaenids, Hel. julia, Spinxes, Thysanis zenobia, Ascal. odorata, Saturnids and more, Arachnids, and interesting insects etc. I'll buy, trade or send slides as available. Send your lists. I'll send mine. David Liebman, 981 S. Quail Street, Norfolk, Virginia 23513. Phone (804) 853-4772.

FOR SALE: BUTTERFLIES OF THE EASTERN UNITED STATES AND CANADA WITH SPECIAL REFERENCE TO NEW ENGLAND, Vol. III, 1889, appendix and plates. Scudder. Sell or will accept as partial payment BEAUTIFUL BEETLES OF THE WORLD 1970, Tomanuki, K., INSECTS OF SOUTHERN AFRICA 1985, Scholtz, C. H. and E. Holm, or any of volumes 3, 4, 5, 6, 7, 9, or 10 of THE BEETLES OF THE WORLD 1983-1989. Also to exchange: A few A+ specimens of Papilio joanae from the type locality. Will exchange for large exotic Coleoptera or leaf insect species (Phyllidae). Also other choice midwestern butterflies including Phaenestrinus alcestis, Fixsenia ontario, Speyeria idalia, Euphydryas phaeton ozarkae, Enodia creola, Problema byssus kumskaka, Atrytone arogos iowa, Hesperia metea, Hesperia ottoe and many more. Richard Heitzman, 3112 South Harris Ave., Independence, Missouri 64052-2732 USA.

FOR SALE: Pupae of: Mimas tiliiae, Deilephila elpenor, Tyria jacobaeae, Dasychira pudibunda, Araschnia levana, Vanessa atalanta, Inachis io, Polygona c-album, Aglais urticae. Egg-masses of: Lymantria dispar, Orgyia antiqua. Also seeds of European plants, please inquire. Send SASE to: Drs. W. de Rover, Kampheidelaan 19, B-2300 Turnhout, Belgium.

FOR SALE: Pupae of A. polyphemus, C. promethea, C. regalis, H. cecropia, H. gloveri, H. euryalis and S. Cynthia. Also chrysalids of Graphium marcellus, Papilio glaucus, and P. troilus. Send SASE for price list to Mark Schmidt, 8780 Red Lion—Five Points Rd, Springboro, Ohio 45066.

FOR SALE: Large or small quantities of Papilio glaucus and Papilio troilus. Send inquiries to Wm. Houtz, RD #4, Box 477, Pine Grove, PA 17963.

FOR SALE: Butterflies of Southeastern Arizona by Richard A. Bailowitz and James P. Brock. 364 pgs. 4 color plates & 624 life-size B/W prints. Contains new information on flight periods and foodplants. \$32.95 postpaid. Sonoran Arthropod Studies, Inc., P.O. Box 5624, Tucson, AZ 85703. MasterCard and Visa orders welcome (602) 883-3945.

FOR SALE: Comstock's Butterflies of California, 1927. This is the black book with the butterfly on the front of the book. In good condition, all plates intact, no tears, no damaged pages. To be auctioned to the highest bidder. \$350 minimum. What are you willing to pay for it? ALSO FOR SALE: Big healthy pupae of Papilio indra fordii from the Granite Mtns, near Victorville, California. These should emerge in early 1992 after 2 months refrigeration. SASE for prices to Richard Priestaf, P.O. Box 14203, U.C.S.B., Santa Barbara, California 93107.

FOR SALE: Monograph of the Sesiidae of America North of Mexico by W. Beutenmuller. 1901. Mem. Am. Mus. N. H. 8 color plates, bound, back strip missing. Send SASE for more information. ALSO FOR SALE: Light traps for use with 12 volt batteries or 120 volt AC, or both. Portable and light weight with 8, 15 or 22 watt bulbs. Beetle screen and rain drain. Excellent design and construction. For more information and pricing, contact: Leroy C. Koehn, 2946 N.W. 91st Ave., Coral Springs, FL 33065. Telephone (305) 344-3873.

MEMBERS' COMMERCIAL NOTICES.....

THOMAS GREAGER, R.D. #6, Box 56-B, Greensburg, PA 15601, USA. FOR SALE: WORLDWIDE BUTTERFLIES in all families. Also some moths, beetles, and other insects. Finest quality specimens, with complete data. Satisfaction guaranteed. Good prices. ALSO FOR SALE: INSECT PINS—Imperial, Elephant, and Stainless Steel in all sizes. United States residents send SASE to begin free price list subscription. Foreign residents send US\$5.00 for a one year price list subscription. WANTED: Contacts with wholesale suppliers of insect specimens from any part of the world.

WORLD PARNASSIUS COMPANY, Poste Restante 00100 Helsinki, Finland. We sell rare butterflies from Europe, including Lapland, USSR, Greece and also some from China.

BOB BROWN, BUTTERFLIES & EXOTIC INSECTS, 1000 So. Illinois, Suite 1102, Mason City, Iowa 50401 USA. Many beautiful & exotic butterflies, moths, beetles, and other insects: from many countries & all regions worldwide. High quality specimens with complete data. Good prices. (Many scarce & rare species of Lepidoptera, Coleoptera, and the other insect orders. Notable in Papilionidae, Agrias, Prepona, Anaea, Morphidae, Saturniidae.) Free list available.

TROPICAL INSECTS AND BUTTERFLY SUPPLIERS, Calcutta Road #2, Post Office, Freeport, Trinidad, W.I. Phone 1-809-679-3991. FOR SALE: Over 600 species of butterflies from Trinidad, the Caribbean, and South America. Major suppliers of South American Morpho species, namely, Morpho rhetenor, Morpho menelaus, Morpho deidamia, Morpho adonis. Also Agraulis vanillae, Heliconius sp, Heliconius doris, Aphrissa statira, Anartia amalthea, Battus polydamas, Parides anchises. Over 600 known species from Trinidad. Enquiries invited.

THE INSECT COMPANY, P.O. BOX 618, COOKTOWN, AUSTRALIA 4871. Suppliers of first quality specimens Worldwide. Our latest catalogue contains many hundreds of Lepidoptera and Coleoptera specimens from the Australian Pacific reg, Russia, Indo. Pacific, PNG, Europe, and Africa and the Americas. Contains Papilionidae, Pieridae, Nymphalidae, etc. Saturnidae, Sphingidae, Lucanidae, Cerambycidae. Updated quarterly, please send U.S. \$1 for 20 pg. catalogue, or U.S. \$4 for next 4 issues. We are also very interested in purchasing large or small quantities of lepidoptera or coleoptera from your area to include in future catalogues.

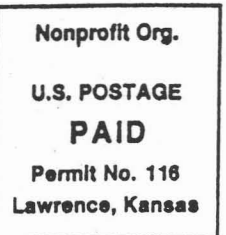
TRANSWORLD BUTTERFLY COMPANY, Apartado 6951, 100L San Jose, COSTA RICA, Central America. Serving Lepidopterists Worldwide since 1976. LATEST 12-PAGE WORLDWIDE LEPIDOPTERA CATALOG includes specimens from South America, Africa, Europe, and the Far East. Beginners to experienced collectors will find species of interest. Examples include Morpho rhetenor female, Morpho insularis female, Morpho titei male, Prepona buckleyana, Papilio warscewiczii etc. Books and Entomological pins. WE OPERATE PERSONALIZED ENTOMOLOGICAL, NATURALIST, BIRDER TOUR PROGRAMS. Latest catalog \$1 or one year's monthly lists via airmail for \$6.

From: The Lepidopterists' Society
Allen Press
P.O. Box 368
Lawrence, KS 66044

Address Correction Requested

John A. Snyder
Department of Biology
Furman University
Greenville, SC 29613-0001

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DEADLINES: Material for the Jan/Feb issue should reach the NEWS EDITOR by Dec 1 of the previous year, and that for the Mar/Apr Issue by Feb 15, for the May/June issue by Apr 1 and for the July/Aug issue by May 1, the Sept/Oct issue by Aug 15 and the Nov/Dec issue by Oct 15. Reports for the SEASON SUMMARY must reach the ZONE COORDINATORS listed on the front cover no later than the 5th of January. NEWS EDITOR is June Preston, 832 Sunset Dr, Lawrence, Kansas 66044-2373, USA. Phone (913) 843-6212. NEWS FROM EUROPE EDITOR is W. O. De Prins, Diksmuidelaan 176, B-2600 Antwerpen, Belgium. Phone 03/322.02.35 (from USA use 011/32.3.322.02.35).

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INFORMATION ABOUT THE SOCIETY.....

Membership in the Lepidopterists' Society is open to all persons interested in any aspect of Lepidopterology. Prospective members should send the TREASURER, Fay H. Karpuleon, 1521 Blanchard, Mishawaka, Indiana 46544, USA, phone (219) 258-4893, the full dues for the current year, \$25.00 US, together with mailing address and a note about areas of interest in the Lepidoptera; student membership (must be certified) \$15; sustaining membership \$35; life membership \$500. Remittances must be in US dollars, payable to the Lepidopterists' Society. All members will receive the JOURNAL (published quarterly) and the NEWS (published bimonthly). A biennial membership directory will comprise the last issue of the NEWS in even-numbered years.

Changes of address (permanent ones only), Additions or Changes in Telephone Numbers or Areas of Interest and Information about Mailing List Rental: Contact the ASSISTANT SECRETARY, Julian P. Donahue, Natural History Museum of Los Angeles County, 900 Exposition Blvd, Los Angeles, California 90007-4057, USA.

Information on Membership and other aspects of the Society must be obtained from the SECRETARY, Dr. William D. Winter, Jr., 257 Common Street, Dedham, Massachusetts 02026-4020, USA. Home phone (617) 326-2634.

Requests for Missed Issues (i.e. those not delivered although dues have been paid on time) should be sent to the TREASURER, Fay H. Karpuleon, address above, or the PUBLICATIONS COORDINATOR, Ron Leuschner, address below. Defective issues will also be replaced by the TREASURER. Do not request these of the NEWS editor.

Manuscripts submitted for publication in the JOURNAL are to be sent to Dr. Boyce Drummond, EDITOR, JOURNAL of the Lepidopterists' Society, Natural Perspectives, P.O. Box 9061, Woodland Park, Colorado 80866-9061, USA. Phone (719) 687-6596. See the inside back cover of a recent issue of the JOURNAL for editorial policies.

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AVAILABLE PUBLICATIONS OF THE SOCIETY..... Order from the PUBLICATIONS COORDINATOR, Ron Leuschner, 1900 John St., Manhattan Beach, CA 90266-2608 USA.

CATALOGUE/CHECKLIST OF THE BUTTERFLIES OF AMERICA NORTH OF MEXICO (Memoir #2), Lee D. Miller and F. Martin Brown: includes references to original descriptions and location of type specimens. Members and subscribers, \$12 cloth, \$7 paper; non-members, \$19 cloth, \$10.50 paper, postpaid.

SUPPLEMENT TO THE CATALOGUE/CHECKLIST OF THE BUTTERFLIES OF AMERICA NORTH OF MEXICO (Memoir #3), Clifford D. Ferris, editor. General notes, plus corrections and additions to the original Memoir #2. Members and subscribers: \$6.00 postpaid. Non-members: \$10.00 postpaid.

FOODPLANTS OF WORLD SATURNIIDAE (Memoir #4), Steve Stone. A listing of foodplants for more than 500 species of worldwide Saturniids. Members and subscribers: \$7.20 plus \$2.00 mailing (\$3.00 outside USA). Non-members: \$12.00 plus \$2.00 mailing (\$3.00 outside USA).

COMMEMORATIVE VOLUME, 1947-1972: a 25-year review of the Society's organization, personnel, and activities; biographical sketches; JOURNAL 25-year cumulative index by author, subject, and taxon; clothbound. Members and subscribers, \$8; non-members, \$12, postpaid.

1990 MEMBERSHIP DIRECTORY (current to October 1990. Biennial directory of members and their addresses, with geographic and interest indices. Not available for commercial use. (NEWS #6 for 1990). \$5.00 postpaid.

BACK ISSUES of the JOURNAL and of the NEWS of the Lepidopterists' Society. For a list of the available issues and their cost, postpaid, send a SASE to the SECRETARY or to the PUBLICATIONS COORDINATOR.