

NEWS

of the LEPIDOPTERISTS' SOCIETY

No. 2, Mar/Apr 1980

Dave Winter, Editor
257 Common Street
Dedham, MA 02026
USA

=====

ASSOCIATE EDITORS

ART: Les Sielski

RIPPLES: Jo Brewer

ZONE COORDINATORS

- 1 Robert Langston
- 2 Jon Shepard
- 3 Ray Stanford
- 4 Hugh Freeman

- 5 Mo Nielsen
- 6 Dave Baggett interim
- 7 Dave Winter

- 8 Kenelm Philip
 - 9 Eduardo Welling M.
 - 10 Paul Opler
 - 11 Quimby Hess
- =====

ZONE 1: SOUTHWEST: ARIZONA, NEVADA, CALIFORNIA, HAWAII. Coordinator: R. L. Langston (RLL). Contributors: G.T.Austin (GA), G.Balogh (GB), J.P.Brock (JPB), K.Davenport (KD) W.Dawes (WD), J.F.Emmel (JE), C.D.Ferris (CDF), G.A.Gorelick (GG), R.V.Kelson (RK), J. Lane (JL), R.H.Leuschner (RHL), A.M.Shapiro (AS), O.Shields (OS), & R.E.Wells (RW). COUNTY, STATE (in caps.) = new county, state records. HIGH, LOW * elevation records.

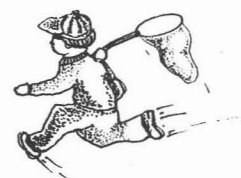
ARIZONA: Twelve new county records for butterflies, with SOUTH, EAST, & WEST range extensions. No migrations reported for Arizona in 1979. Most of the moths listed below are the usual species from their respective locales, but are included this time as a reference so that they need not be repeated in future summaries.

MOTHS: SPHINGIDAE: Sphinx dolli, Madera cyn., 27 July (GB). SATURNIIDAE: Automeris pamina, Guadalupe Cyn., Cochise Co., 13 Aug. (CDF). CITHERONIIDAE: Spingocampa hubbardi, Guadalupe Cyn., 13 Aug. (CDF). Eacles imperialis oslari, Lower Ash Cyn., Huachuca Mts., Cochise Co., 15 July (GB, N.McFarland) & Madera Cyn., 27 July (GB). CTENUCHIDAE: Ctenucha venosa, Half mi S Oracle Jct., Pima Co., 7 July, & betw. Cave Cr. & Rustler Park, Cochise Co., 21 June (GB). C. cressonana, N of Nelson Res., Apache Co. 22 July (GB). ARCTIIDAE: Lycomorpha grotei, Bear Cyn., S. Catalina Mts., Pima Co., 7 July (GB). Ptychoglene phrada, Madera Cyn., 14 July, (GB). Aemilia ambigua & Phaegoptera astur arizonensis, South Fork Cyn., Cave Creek, Cochise Co., 14-15 Aug. (CDF). Bertholdia trigona, Madera Cyn., 27 July (GB). AGARISTIDAE: Alypiodes bimaculata, Montezuma Pass, Huachuca Mts., Cochise Co., 29 July (GB). NOCTUIDAE: Lithophane contra, Cave Creek, Cochise Co., 12 Apr. (RHL). Catocala streckeri, Lower Ash Cyn., Huachuca Mts., 15 July (GB, N.McFarland). C. s., C. aholibah & C. desdemona, Madera Cyn., 26-27 July (GB). C. ilia & C. violenta, South Fork Cyn., 14-15 Aug. (CDF). Matigramma rubrosuffusa, Gaudalupe Cyn., 13 Aug. (CDF). LASIOCAMPIDAE: Gloveria arizonensis, Quadrina diazoma (many) & Atarce colaria ab. ♀, South Fork Cyn., 14-15 Aug. (CDF). ZANOLIDAE: Parargyractis jaliscalis, Guadalupe Cyn., 13 Aug. (CDF).

BUTTERFLIES: Amblyscirtes simius, 4 mi S Springerville, Apache Co., 25 June EARLY, same loc. as 4 Aug. 78 (possible double brood? JPB). Atrytonopsis ovinia edwardsi, Cave Creek, Cochise COUNTY & EAST, 12 Apr. (RHL). Hesperia comma susanae abundant, White Mts.



1979 Season Summary



Apache-Navajo Cos., 2-3 Sept. (GA). *H. woodgatei* in washes & *H. pahaska* hilltopping, Hualpai Mts., Mohave Co., 23 Sept. (GA). *H. viridis* (SOUTH) & *Adopaeoides prittwitzi*, Parker Canyon Lake, 29 July--both new for Chocice COUNTY (GB). *Piruna pirus*, Ditch Camp, Apache Co., 21 July & KP Cienega, White Mts., Greenlee COUNTY, 22 July (GB). *Pholisora alpeus* on the "flats" of San Simeon Valley, Cochise COUNTY, 12 Apr. (RHL). Also *P. alpeus*, Rancho Del Rio W of Bisbee, 15 July, SOUTH record & 2nd for Cochise Co., plus Box Cyn., Santa Rita Mts., Pima COUNTY, 4 July (GB). *Pyrgus scriptura*, Rancho Del Rio, Cochise COUNTY & SOUTH, 15 July (GB). *Papilio rutulus*, Hospital Flat, Pinaleno Mts., Graham COUNTY, 8 July (GB). *Phoebis sennae marcellina*, Sycamore Cyn., S. Cruz Co., 1 July (GB) & common, with many albino females, South Fork Cyn., Cave Creek, Cochise Co., 14 Aug. (CDF). *P. agarithe*, Peppersauce Cyn., Pinal Co., 8 April!!! EARLY (JPB) & Sycamore Cyn., 1 July (GB). *Eurema boisduvaliana*, Box Cyn., S. Rita Mts., Pima Co., 4 May (JPB), 4 July (GB). *E. mexicana*, Hualpai Mts., Mohave COUNTY, 3 June (GA) [Rare in Mojave Desert--few western Ariz. records, only 2 Nevada records.] *A. sara inghami*, Cave Creek, 12 April (RHL). *Emesis zela cleis* with ♂ darker & ♀ paler than normal, Guadalupe Cyn., Chochise Co., 13 Aug. (CDF); Box Cyn., Pima COUNTY, 4 July & Madera Cyn., Santa Cruz COUNTY, 14 July (GB). *Phaeostrymon alcestis oslari* larvae on soapberry, *Sapindus saponaria*, Molino Basin, Pima COUNTY, 29 Apr. (JPB). *Lycaena ferrisi*, Ditch Camp, White Mts., Apache Co., 21 July (GB) [In 77 Summary from Greer, 8600'--RHL]. *Phyciodes picta canace*, US 93 at Big Sandy R., Mohave Co., 3 June (GA) & Rancho Del Rio W. of Bisbee, Cochise Co., 15 July (GB). *Thessalia fulvia*, Box Cyn., Pima Co., 4 May--rare in the Santa Ritas (JPB); 1 mi. S. Vernon, White Mts., Apache Co., 3 Sept. & Hualpai Mts., Mohave COUNTY & WEST, 23 Sept. (GA). *Poladryas arachne*, *Speyeria electa nausicaa*, *S. mormonia luski* & *S. aphrodite byblis*, White Mts., Apache-Greenlee Cos., 21-22 July (GB). Same 4 species common but past prime, plus *S. nokomis nitocris*, White Mts., Apache-Navajo Cos., 2-3 Sept. (GA).

NEVADA: One STATE record and 27 new COUNTY records, with NORTH, SOUTH, EAST & WEST range extensions. For butterflies, of course, as no moth reports for Nevada, as usual. "No migration was evident for anything..." (GA).

BUTTERFLIES: *Callophrys comstocki* in rocky canyon 6 mi. NW. of Goodsprings, Clark Co., 12 Apr. (GG). All following records by GA: *L. eufala* (NORTH for Nev.), *A. campestris* & *P. sabuleti*, 3 mi. N. Pahrump, 7 Oct., all NEW for Nye COUNTY. *H. uncas lasus* swarming on composites in Reese River Valley, Lander Co., 8 July. *H. phyleus*, Caliente, Lincoln COUNTY, 16 Sept. [Clark only previous Co. for Nev.] *P. rapae*, N. iole (NORTH for Nev.) & *A. sara thoosa*, Cherry Creek summit, Quinn Canyon Range, 28 May, all NEW for Nye COUNTY. *A. mormo*, half mi. E. Lida, Esmeralda COUNTY, 5 Aug. *A. palmerii marginalis*, Cherry Patch Ranch Rd. 5 mi. N. Hwy. 16, Nye COUNTY, 7 Oct. *Hypaurotis crysalus*, Highland Range, Lincoln COUNTY, STATE & WEST, 22, 29 July--"Good colony!" (GA). *S. saepium*, Wilson Creek Range, 9000', Lincoln COUNTY, 29 July--rare in eastern Nev. *C. fotis*, Patterson Pass Rd. W. of US 93 & Bristol Mts. 12 mi. N. Pioche, both Lincoln COUNTY, 27 May. *A. halesus corcorani*, US 93 at Atlanta Rd., 29 July & Meadow Valley Wash, 14 Oct., both Lincoln COUNTY; Mesquite Rd., Pahrump, Nye COUNTY, 7 Oct. *P. shasta minehaha* (not entirely typical), Wilson Creek Range, 9000', Lincoln COUNTY & SOUTH, 24 July. *Chlosyne neuomegeni*, Meadow Valley Wash, Lincoln COUNTY, NORTH & EAST, 16 Sept. *Poladryas arachne*, Oxbow Spgs. Wash, 5 mi. E. Nyala Rd., Quinn Canyon Range, Nye COUNTY, 28 May, with *T. leanira alma*. *A. vanillae incarnata*, Red Rock area, 29 Apr. & Christmas Tree Pass, Newberry Mts., 6 May, Clark Co.--possibly no *Passiflora* for many miles [2nd & 3rd state records]. Many *C. oetus pallescens* on composites in Reese River Valley, Lander Co., 8 July. Additional COUNTY records include: *S. sylvinus* (Lincoln); *L. rubidus* (Esmeralda); *L. helioides* (Lincoln); *H. ceraunus gyas* (Lincoln, Nye); *V. atalanta rubria* (Lincoln); *C. virginensis* (Esmeralda); & *J. coenia* (Lincoln, Nye, White Pine)--G. Austin has details.

CALIFORNIA: With numerous collectors in Calif. for many years, there are only three new COUNTY records, with NORTH, SOUTH & WEST range extensions. Also among the butterflies, several EARLY-LATE, HIGH-LOW and NEW HOST records.

MIGRATORY SPECIES: *Colias cesonia*, Bonanza King Mine Cyn., Providence Mts., San Bernardino Co., 28 May (WD). *Cynthia cardui*: Parrots Ferry Bridge, Calaveras-Tuolumne Cos., few on 6 Apr. (RLL). Arrived at Davis, Yolo Co. en masse 7 Apr., very high 12 Apr. thru early May moving N. and breeding. Again at Davis 29 Aug. moving S. thru 11 Nov. (AS). Fresh adults C. Costa Co., 23 June & San Joaquin Co., 19 July (RLL). Bodega Bay, Sonoma Co., 16 Sept., & in large numbers, Kensington, C. Costa Co., 29 Sept.-18 Nov. (RLL). Sparse W. & WNW. migration, Mt. San Geronimo, 10-11,000', HIGH, S. Bdn. Co., 23 Sept. (JE). *Junonia coenia* from SW. to NE. thru Davis, Yolo Co., 29 Apr.-1 May (AS), but not in Rancho Cordova, Sacto. Co. by 2 May (AS) [Any migratory tendencies in the buckeye noted by others?--RLL]. *Nymphalis californica*: In numbers at Briceburg, Mariposa Co., 10 Mar. (KD); few worn hibernants, Del Puerto Cyn., Stanislaus Co., 24 Mar. (RLL); fair numbers Salt Springs Res. Rd., 3200-3500', Amador Co., 4 Apr. & S. of Hathaway Pines, 2500', Calaveras Co., 5 Apr. (RLL, RW); returned to Kern Co. after nearly a 3-year absence--Havilah & Breckenridge Mtn., 6 June, Mt. Pinos, 28 June (KD). *Danaus plexippus*: Worn adults Stanislaus Co., 24 March, C. Costa Co., 1 Apr. & Amador Co. at 3500', 4 Apr. (RLL); fresh adults & larvae San Joaquin Co., 19 July (RLL). Greater than usual numbers of fall migrants, C. Costa Co., 23 Sept., numerous all of Oct. & last noted 13 Dec. (RLL).

MOTHS: SPHINGIDAE: Many large larvae of *Pholus achemon* on Concord grape, Pine Grove, 2500', 1 Aug. & larvae on Tokay grape, Jackson, 1200', 4 Sept., both Amador Co. (RLL). *Properpinus clarkiae*, Parrots Ferry Bridge, Calaveras Co., 6 Apr. (RLL). SATURNIIDAE: *Platysamia euryalis*, ca. 20 cocoons on *Ceanothus*, 2 mi. E. Arnold, 4500', Calaveras Co., 5 Apr. (RLL, RW)--adults emgd. early May. NOLIDAE: *Sarbenia minuscula*, Jackson, 1200', Amador Co., 4 Apr. (RLL). NOCTUIDAE: *Raphia cinderella*, *Acronicta brumosa*, *Lacinipolia comis* & *Amphipyra pyramidoidea*, Jackson, 30 July-2 Aug. (RLL). *Cucullia laetifica*, 15 E. of Tupman, Kern Co., 14 Jan., EARLY (RLL). *Oncocnemis mirificalis* & *regina*, Mt. Pinos, Ventura Co., 8 Sept., day-flying AND at light (RHL). *O. linda* & *wilsonensis*, *Stiria dyari*, *Lythrodus radiatus*, *Schinia oculata* & *aleucis* and *Paracretonia aleptivoides*, Pinyon Crest, 4400', Riverside Co., 31 Aug. (RHL). *Annaphila abdita*, *astrologa* & *lithosina*, Del Puerto Cyn., Stanislaus Co., 24 Mar. (RLL). *A. decia* & *diva yosemitensis*, Kern Cyn. at Democrat Hot Spgs., 2200', Kern Co., 24 Mar. (RHL). *A. pseudoastrologa*, Parrots Ferry Bridge, 6 Apr. (RLL). *A. ida*, Angeles Crest & Forest Hwys., L.A. Co., 29 Apr. (RHL). Huge flight of *Catocala aholibah* in foothills incl. Gates Cyn., SoTano Co., 16 Sept. & same week nr. Auburn, Placer Co. (AS). A few *C. ilia* & *C. verilliana* unusually common, Jackson, July-early Aug. (RLL, RW). NOTODONTIDAE: *Nadata gibbosa* & *Schizura unicornis conspecta*, Jackson, 30 July-2 Aug. (RLL). *Gluphisia linteri severa*, Carmel River, Monterey Co., 31 Mar. (RHL). GEOMETRIDAE: *Brephos infans oregonensis*, Mokelumne R. at Moore Cr. Cpgd., 3200', Amador Co., 4 Apr. (RLL). *Chlorochlamys viridipallens* & *Prorella opinata*, Pinyon Crest, 31 Aug. (RHL). *Mesoleuca gratulata* & *Trichod. californiata* day-flying in the shade, Redwood Gulch, Hwy. 1, Monterey Co., 31 Mar. (RHL). *Eupithecia karenae* Leuschner, *Stenoporia pulm. lita* & *Gabriola pruina*, Carmel River, 31 Mar. (RHL). *Hulstina grossbecki*, Aguanga, 2000', Riv. Co., 28 May (RHL). ZYGAENIDAE: *Harrisina brillians*, larval damage on grapes, Virginia creeper, Volcano, 2053', 30 July & adults, all early stages, Pine Grove area, 2500', Amador Co., 2 Aug.-6 Sept. (RLL). PYRALIDAE: *Gyros muiroi*, Del Puerto Cyn., 24 Mar. (RLL). *Parargyractis jaliscalis*, San Antonio Vy., Santa Clara Co., 2 Sept. 78 & *P. confusalis*, Jackson, 1200', Amador Co., 4 Sept. (RLL). ETHMIDAE: *Ethmia plagiobothrae* & *E. brevistriga aridicola*, Kern Cyn. at Democrat Hot Spgs., 2200', 24 Mar. (RHL).

BUTTERFLIES: Two tents of *M. yuccae martini* in *Yucca brevifolia*, 1 mi. SW. Tin Mtn. summit, 8400', Cottonwood Mts., Inyo Co., 2 July, HIGH & NORTH (JE). *P. melane ovip.* on *Bromus carinatus* (NEW HOST) nr. Scotts Valley, 9 June--ova on same grass sp. in other parts of Santa Cruz Co. (JL). *O. sylvanoides*, Tom's Hill nr. Butterbread Peak, Kern Co., 21 Aug.--unusual on desert side (KD). *E. brizo burgessi*, Keystone Cyn., 5500', New York Mts., S. Bdn. Co., 30 Apr. (JE, OS). Three dusky-wings at Pinyon Crest, 4400', Riverside Co.: *E. propertius*, 27 May; *E. afranius* & *tristis*, 31 Aug. (RHL). *P. leo arizonensis*, 1 mi. NE. Toll Rd. Cpgd., 4700', S. Bdn. Co., 28 Aug. (JE). *E. clarus*, Suison City, SoTano Co., 15 Sept. (AS). *P. bairdii*, Sugarloaf Mtn., ridge from Wildhorse Cr., San Bdn. Mts., many on 4 July incl. one form "brucei", also common 8 July (WD). *P. indra martini* adult, ova larvae, Bonanza King Mine Cyn., 4700-5500', 28 May (WD). *P. multicaudatus*, east slope Breckenridge Mtn., Kern Co., 29 May abundant, 6 June moderate (KD)--LOW, commoner & earlier dates than other known So. Calif. locs.--such as Frazier Mtn., 7400', Ventura Co., 1 July (WD). *P. eurymedon*, Eaton Cyn., San Gabriel Mts., L.A. Co., 25 Feb., very EARLY (WD). *P. napi venosa*, U.C. Santa Cruz campus, 25 Mar. & 2nd brood "castoria", Soquel, 11 June (JL). *C. harfordii*, Pinyon Crest, 4400', Riv. Co., 24 Nov., very LATE (RHL). *C. eurydice*, Cuyler Harbor, San Miguel I., Sta. Barb. Co., 10 Aug. 78 (GG). *A. cethura* (large, with all white ♀♀), Jct. I 5 & Lerdo Hwy., 20, 22 Mar.; Lerdo Hwy. & Rowlee Rd. and 5 mi. N. McKittrick, 22 Mar.--all in western Kern Co. & adj. to Central VALLEY (JPB). *A. sara gunderi* larvae on *Caulanthus lasiophyllus*, Renton Mine, Santa Catalina I., L.A. Co., 8 May (JE). *A. sara thoosa*, Leadfield vicinity, 4000-5000', Grapevine Mts., Inyo Co., 24 Apr. (JE). *A. palmerii marginalis*, Tecopa, Inyo Co., 4 July, unusual midsummer

brood (JE, OS). *C. behrii*, *S. saepium*, nr. *dryope*, *L. arota virginienis* & *xanthoides*, Hunter Mtn., 6800', E. of Nelson Range, Inyo Co., 9 July (JE, OS). *I. fotis* larvae on *Cowania stansburiana*, SSE. of Tin Mtn., summit at 8650', HIGH, Cottonwood Mts., Inyo Co., 2 July (JE, OS). *C. dumetorum*, Homewood Cyn. N. of Trona, Inyo Co., 13 Apr. & Sand Cyn. 2 mi. W. Hwy. 14, Kern Co., 14 Apr. (GG); over 60 in an hour nr. Frazier Park, Kern Co., 14 Apr. assoc/w *Erio. fascic.* (GG, OS). *C. comstocki*, Ord Mtn. at 5500', SE. of Barstow, 9 Apr., 6 Sept. (JE, OS); N. side Clark Mtn., S. Bdn. Co., 11 Apr. assoc/w *Erio. heermanni* (GG); Aguerreberry Pt., Inyo Co., 13 Apr. (GG, OS); vic. Leadfield, Grapevine Mts., Inyo Co., 24 Apr. (JE); N. end Nopah Range, 4000', Inyo Co., 25 Apr. (JE); Keystone Cyn., 5500', New York Mts., S. Bdn. Co., 30 Apr. (JE, OS); & 2 mi. W. Horse Thief Spgs., 6000', Kingston Range, 4 July--midsummer brood (JE, OS). *A. halesus corcorani*, Univ. campus, Bakersfield, 25 Mar., EARLY, LOW & VALLEY records (WD) plus a single ♀, summit Castle Peak, 9000', HIGH, Nevada Co., 14 July (AS). Adult *S. avalona* abundant, slopes above Catalina Harbor, S. Catalina I., L.A. Co., 26 May (GG)--ova & larvae on *Eriogonum grande* & *E. giganteum* both Isthmus & Avalon areas & synchronous with nectaring *S. melinus*. The latter much scarcer on the island, with only 4 taken 1 mi. SSE. Avalon, 1 Apr. (GG). *L. rubidus*, White Chief Trail, 9000', Mineral King Valley, Tulare Co., 15 Aug. (WD). One *L. marina* emgd. from larva on *Lotus scoparius dendroides*, Avalon region, S. Catalina I.--only 1 seen in past 4 yrs. (GG). *H. ceraunus gyas*, 2 mi. S. Bodfish, 21 May--2nd record for Kern Co. (KD). "Fall-flying segregate" of *E. enoptes*, Hooper Hill above Bodfish-Calierte Rd. & Miracle Hot Spgs., Kern Co., 31 Aug., 10 Sept. (KD)--signif. larger than nominate *enoptes* in same areas May, early June. "F-fs" *enoptes* sympatric with *E. rita elvirae* & both assoc/w *Erio. wrightii*, Harris Grade, 5000', Piute Mts., Kern Co., 5 Sept. (JE). *E. enoptes langstoni*, Doble, 6700', S. Bdn. Mts., San Bernardino COUNTY & SOUTH, 13 June (JE). *P. sonorensis* common, Salt Spgs. Res. Rd. at 3500', Amador Co., 4 Apr. (RL, RW) & 4 mi. S. Rail Road Flat, 2600', Calaveras COUNTY, 5 Apr. (RW). *N. milberti furcillata*, Rancho Cordova, 6 Mar. & North Sacramento, 31 Mar. VALLEY records, with numbers generally high in Sierra Nevada (AS); below White Chief Peak at 9900', Tulare Co., 15 Aug. (WD). *P. zephyrus*, Briceburg, 1186', LOW, Mariposa Co., 10 Mar. (KD); Adam's Spgs., Lake Co., 21 June, summit Mt. Hull, 6800', Lake-Mendocino Cos., 23 June & very common Snow Mtn., 7000', Lake-Colusa Cos., 8 July (RK). *E. chalcidona kingstonensis*, Providence Mts., 4200' & 5000', S. Bdn. Co., 18 Apr., 28 May (WD). *E. editha* nr. *augusta*, Horseshoe Mdw., 9800', SW. of Lone Pine, Inyo COUNTY & NORTH, 17 July (JE, OS). *C. lacinia crocale*, Pinyon Crest, 4400', Riv. Co., 31 Aug. (RHL). *C. californica*, Doble, 6700', HIGH & out of usual desert habitat, 13 June (JE) & Ord. Mts. at 5500', SE. of Barstow, 6 Sept., NORTHWEST (JE, OS), both S. Bdn. Co. *I. leanira alma*, Mescal Range nr. Mountain Pass, 4800', 3 Apr. (JE, OS) & Kokoweef Peak, Ivanpah Mts., 24 May (WD), both S. Bdn. Co. *B. epithore*, U.C. Santa Cruz campus, 11 May, 16 June (JL). *S. coronis snyderi*, Lang Crossing, 4700', Nevada Co., 10 Sept., LOW and W. Slope (AS). *C. pegala* (*boopis* or *baroni*), Adam's Spgs., Lake Co., 21 June (RK)--INLAND record for the coastal form. High numbers of *O. ivalida*, Castle Peak, 9000', 14 July-23 Aug. & one at E. end Donner Pass, 10 Sept., LATE (AS).

HAWAII: Since the previous Zone 1 Summary, a fifteenth species of butterfly has been recorded and published for the Hawaiian Island chain. To wit: *Brephidium exilis*, Hicham Air Force Base, Honolulu, Oahu, late June 78 and early Aug. 78 (L. Nakahara)--a new STATE record, with all the potentialities to become common. The fourteenth species was *Agraulis vanillae* in Honolulu, Manoa, 14 Jan. 77 (K.T. Arakaki & E.A. Perry)--which has become established and very abundant. Among the moths the most recent SPHINGIDAE appears to be *Macroglossum pyrrostictum* initially found in a house at Makiki, a Honolulu suburb, 11 July 76. [Data on all 15 Rhopalocera, including the above: Rötte, J. C. E. & G. Uchida, 1979, J. Res. Lep. 17:33-39.]

ZONE 2: Not yet received.

ZONE 3 (ROCKY MOUNTAINS): ALBERTA, MONTANA, WYOMING, UTAH, COLORADO and NEW MEXICO. Coordinator: Ray E. Stanford. Contributors: George T. Austin (GTA), Karólis Bagdona and his "Flying Circus" (BFC), George Balogh (GB), Jim P. Brock (JPB), George W. Busby (GWB); Peter L. Eades (PLE), Peter Eriksson (PE), Clifford D. Ferris (CDF), Michael S. Fisher (MSF), Clyde F. Gillette (CFG), Richard Holland (RH), Richard L. Klopshinske (RLK), Steven J. Kohler (SJK), Norbert G. Kondla (NGK), Rod Mosbacher (RM), Bruce O'Hara (BOH), Floyd & June Preston (FJP), Robert M. Pyle (RMP), James A. Scott (JAS), Ray E. Stanford & family (RES), Michael E. Toliver (MET), Michael Young (MY). Format: Data are given in rough checklist order for each Province and State, greatly abbreviated to allow inclusion of many records in the allowed space. Readers desiring detailed locality data are encouraged to contact the individual contributors. Subspecific names have been included only when identification would be vague in their absence. Generic names are usually abbreviated, and are therefore the traditional or more familiar ones; newer nomenclature is often indicated in parentheses. Notations in CAPITAL LETTERS denote putative COUNTY, STATE, PROVINCE, EARLY, LATE, ALTITUDINAL, or range (E,W,N,S, SE, SW, NE, NW) records; it is emphasized that these are putative records only, based on available data. I will appreciate correspondence providing data which correct any of these. Moth records are usually listed without such notations, because of the lack of a published data base. Regional Notes: Despite what most contributors described as a wet, cold and dreary season, a great deal of new information was learned about our regional Lepidoptera in 1979. Our own people were as active as ever, and several others journeyed to or through the Rockies en route to the Fairbanks Lep. Soc. meeting. PE, a visiting scientist from Finland, discovered some things that we "locals" had missed over the years; MET tried MT instead of NM and came up with goodies also. In all, 3 STATE records, 3 CONFIRMATORY STATE records, and over 3000 COUNTY records were received, as well as many range extensions and life history data. I wish to take this opportunity to thank all contributors for their input.

ALBERTA: NGK, the only person reporting, found 1979 a late, wet season, in which "Fisher's Law" was observed: most rain came on weekends! Most of his report covers collecting in the Lower Milk River (LMR) in SE. Alberta.

BUTTERFLIES: *P. ruralis*, Kootenay Plains, 20 May. *A. vialis*, Wapiti dunes S. of Grande Prairie, 19 June. *O. sylvanoides napa*, LMR (NE.), 14 Aug. *P. zelicaon nitra* "nitra", LMR, late May, incl. some odd examples perhaps representing hybrids with *polyxenes* or the *dodi* complex (?bairdii). *P. sisymbrii*, Kootenay Plains, 20 May. *E. olympia rosa*, LMR, late May. *I. eryphon*, Wapiti dunes S. of Grande Prairie, 19 June. *A. glandon rustica*, Kleskun Hill nr. Grande Prairie, 18 June. *P. gracilis*, Redwater, 3 June (2nd known Alberta record: also Pine Lake, cited in 1973 Field Summary; possibly a blend zone with *P. zephyrus*--RES). *O. macounii*, Redwater, flying 2 wks. later than in 77. *O. alberta*: LMR, late May; Kleskun Hill nr. Grande Prairie, 300 mi. RANGE EXTENSION, 18 June.

MOTHS: No data received.

MONTANA: A fine field year by SJK, augmented by brief visits to the State by RES in mid-July, MET in early Aug., & RMP in late Aug. resulted in 108 new COUNTY records, mainly in the poorly known eastern third of Montana by SJK & RES. Carter, Fallon, Treasure & Wilbaux Cos. were apparently sampled for the 1st time! RMP was studying the Pine Butte Swamp Preserve (Nature Conservancy, abbrev. PBS below) with Charles L. Remington, where 26 butterfly species were observed. MET collected mainly in the Absaroka Wilderness, Beartooth Mts., abbrev. AW below.

BUTTERFLIES: *E. clarus*: BIG HORN Co., 5 June (SJK); ROSEBUD Co., 12 July (RES); McNab Campground, SE of Ekalaka, CARTER Co., 13 July (RES--locality hereafter called simply McNab). *E. persius*, GLACIER Co., 10 July (RES). *P. ruralis*, DEER LODGE & POWELL Cos. (SJK). *E. vestris kiawah*: CARTER (McNab), POWDER RIVER, ROSEBUD & TREASURE Cos., 12-13 July (RES). *A. togan lagus*, Red Shale Cpgd., Powder River Co., 12 July (RES). *P. mystic dacotah*, McNab, CARTER Co., 13 July (RES). *H. comma manitoba*, PBS, Chouteau Co., 22 Aug. (RMP). *O. garita*: ROSEBUD Co., 5 June (SJK); McNab, CARTER Co., 13 July (RES); LINCOLN Co. (SJK). *C. palaemon*: E. of Glacier NP, Glacier Co., 10 July (RES); S. of Monarch, Cascade Co., 11 July (RES); BEAVERHEAD Co. (SJK). *P. phoebus montanulus*: AW, Carbon Co., 10 Aug. (MET); unusually abundant in Missoula Co., June (SJK). *P. clodius gallatinus* (submitted as *altaurus*), AW (Lady of the Lake trail & Companion Lake), CARBON Co., 7011 Aug. (MET). *P. zelicaon* (yellow morphs): DEER LODGE, FALLON (6 June), LINCOLN, MINERAL Cos. (SJK). *P. multicaudatus*: Cascade & TREASURE Cos., 12 July (RES). *P. occidentalis*, TREASURE Co., 12 July (RES). *E. hyantis*, Perma, Sanders Co., 27 Apr. (SJK). *E. olympia*, 5 mi. N. Baker, FALLON Co., 6 June (SJK). *A. sara*: E. of Glacier NP, Glacier Co., 10 July (RES); DEER LODGE Co. (SJK). *C. alexandra astra* (det. RES): PBS, CHOUTEAU Co., 22 Aug. (RMP);

C. alexandra columbiensis (det. SJK), LINCOLN Co. (SJK). *C. pelidne skinneri*: S. of Monarch, Cascade Co., 11 July (RES); AW, Carbon Co., 9-10 Aug. (MET). *C. sheridanii* nr. *neoperplexa*: Rainbow Lake, SANDERS Co. 27 Apr.; also Granite & Beaverhead Cos., May (SJK). *C. affinis*, Ninemile Prairie, MISSOULA Co., 9-12 June (SJK). *I. augustinus iroides*: GRANITE, LAKE, MINERAL, POWELL, RAVALLI Cos. (SJK). *I. polios obscurus*: GRANITE, LAKE, MINERAL, SAUNDERS Cos. (SJK). *I. mossii schryveri*: LAKE, MINERAL, SANDERS Cos. (SJK). *M. s. siva*: taken in assoc/w *Juniperus scopulorum* in 17 counties by SJK in a major attempt to map & study this species in Montana: BIG HORN, BROADWATER, CUSTER, Dawson, DEER LODGE, FALLON, Granite, Jefferson, MISSOULA, PARK, POWELL, ROSEBUD, SANDERS, SILVER BOW, STILLWATER, Sweet Grass, YELLOWSTONE Cos., May-June (SJK). *M. nelsoni* complex (probably *byrnei*, fide SJK), nr. Noxon, Sanders Co., 15 June (SJK). *M. spinetorum*, S. of Monarch, Cascade Co., 11 July (RES). *H. titus*, McNab, CARTER Co., 13 July (RES). *L. (Gaeides) xanthoides dione*: Belt Creek, Cascade Co., 11 July (RES); Bighorn Rd., TREASURE Co. (RES) & nr. Columbus, Stillwater Co. (SJK), both 12 July. *L. (Chalceria) rubidus duofacies*, STILLWATER Co. (SJK). *L. (Epidemia) mariposa penroseae*, AW, Carbon Co., 8-10 Aug. (MET). *E. amyntula albrighti*: JEFFERSON, PARK Cos. (SJK). *P. icarioides lycea*: BIG HORN, FALLON, YELLOWSTONE Cos. (SJK); McNab, CARTER Co., 13 July (RES). *P. saepiolus* ssp.: FALLON, WIBAUX Cos. (SJK); McNab, CARTER Co., 13 Jul (RES). *G. lygdamus oro*: DEER LODGE, FALLON, ROSEBUD, WIBAUX, YELLOWSTONE Cos. (SJK); CASCADE Co. (RES). *G. piasus daunia*: BIG HORN, DEER LODGE, SILVER BOW Cos., early June (SJK). *C. argiolus pseudargiolus*: GRANITE, MINERAL Cos. (SJK); E. of Lame Deer, ROSEBUD Co., 12 July (RES). *P. oreas silenus*, Miller Cr., Missoula Co., 15 May (SJK). *P. zephyrus* (slightly intermediate towards *progne*), E. of Lame Deer, ROSEBUD Co., 12 July (RES). *C. palla calydon*, S. of Monarch, Cascade Co., 11 July (RES). *C. acastus*: DAWSON, FALLON Cos., early June (SJK). *P. mylitta*, SILVER BOW Co. (SJK). *P. mylitta/pallida* complex, determinations pending: BIG HORN, YELLOWSTONE Cos. (SJK). *E. (Hypodryas) gillettii*, nr. Seeley Lake, Missoula Co., 16 July (SJK). *B. (Clossiana) selene atrocostalis/tollandensis*: Lower Thompson Lake, LINCOLN Co., 22 June (SJK); PBS, Chouteau Co., 22 Aug. (RMP). *B. (C.) titania ingens*, AW, Carbon Co., 7-10 Aug. (MET). *B. (C.) kriemhild*, AW, Carbon Co. 8-10 Aug. (MET). *S. egleis albrighti*, nr. Seeley Lake, Missoula Co., 16 July (SJK). *S. atlantis* ssp.: E. of Glacier NP, Glacier Co., 10 July (RES); PBS, Chouteau Co., 22 Aug. (RMP). *S. hydaspe sakuntala*, AW, Carbon Co., 11 Aug. (MET). *S. coronis* nr. *halcione*, Bighorn Rd., TREASURE Co., 12 July (RES). *S. edwardsii*, abundant but very worn, McNab, CARTER Co., 13 July (RES). *S. aphrodite* nr. *ethne*: many records, incl. from POWDER RIVER & CARTER Cos., 12-13 July (RES). *S. (Cybele) leto*: E. of Lame Deer, ROSEBUD Co., 12 July (RES); PBS, Chouteau Co., 22 Aug. (RMP). *C. tullia (ampelos) swadneri*: various places in Flathead, Lincoln, Missoula & Sanders Cos., mid-June (SJK). *C. tullia (inornata) benjamini*: DAWSON, FALLON, WIBAUX Cos., early June (SJK); Red Shale Cpgrd., POWDER RIVER Co., 12 July, very worn (RES). *C. haydeni*, S. of Monarch, Cascade Co., 11 July (RES). *O. uhleri varuna*: many records from Broadwater, DAWSON, FALLON, GRANITE, JEFFERSON, Powell, WIBAUX Cos., late May & early June (SJK). *E. theano ethela* & *E. callias*, AW, Carbon Co., 8-10 Aug. (MET).

MOTHS: No data received.

WYOMING: It was a spotty season, mainly cool and wet but with local drought, following a cold wet (east) to dry (west) winter and late spring (CDF). The BFC made an intensive study at Grand Teton Nat'l Park (GTNP), Teton Co., while JPB continued his study in the foothills west of Buffalo (W/B), Johnson Co. Other contributors were PE, CFG, JAS, RES & MET. CDF wishes it noted that the bulk of his moth collection is divided between the LACM and the Florida State Collection of Arthropods (Gainesville), and that persons engaged in studies involving Wyoming fauna should contact these institutions directly. The BFC team in 1979 included Karlis Bagdonas, William Bagdonas, Sterling Blanche, John Carlisle, Teresa Clifford, Mark Harrington, Sharon Hill, Alice Houston, Charles Lanham, Marilyn Lanham, Tom McGann, Michael Rehg, Roberta Skinner, Shelley Schweitzer, Angela Tealdi, Rick Thompson & Katherine Wilkinson.

BUTTERFLIES: *T. mexicana nevada*, Cowboy Cabin Park (CCP), Uinta Mts., UINTA Co., 25 June (RES). *E. afranius*, NIOBRARA Co., 14 July (RES). *P. ruralis*, CCP, UINTA Co., 25 June (RES). *E. vestris kiowah*: W/B, 10 July (JPB); N. of Hulet, Crook Co., 13 July (RES). *P. taxiles*, 12 mi. N. of Hulet, CROOK Co & NORTH, 13 July (RES). *H. u. uncas*: nr. Mountain View, UINTA Co., 24 June (RES); South Pass, FREMONT Co., 1 July (JPB); 5 mi. NE. of Orin, Converse Co., 14 July (RES). *H. nevada*, CCP, UINTA Co., 25 June (RES). *C. palaemon*, 24 seen, GTNP (BFC). *P. clodius gallatinus*, GTNP from 6800-11,600', with *P. phoebus montanus* but less common, mid-June thru July (BFC). *P. zelicaon* fm "nitra", single record, Survey Peak, GTNP, 27 June (BFC). *A. sara browningi*: common below 9000', GTNP, all June and early July (BFC); CCP, UINTA Co., 25 June (RES). *C. m. meadii*, mainly alpine but a few in low meadows, GTNP, July-Aug. (BFC). *C. scudderii*, good flight at 9500', Snowy Range, Albany Co., July-Aug. (CDF). *C. pelidne skinneri*, 16 observed from mid-June thru July, below 9000', GTNP (BFC). *C. affinis*: sagebrush areas, fairly common all June & early July, GTNP (BFC); Sinks Can. Rd. at Slate Cr., FREMONT Co., 1 July (JPB). *M. spinetorum*: moderate numbers, low elevations, GTNP, June & Aug. (BFC) (?bivoltine--RES); strong flights in Laramie Rg. & Snowy Rg., Albany Co., June-July (CDF); nr. Stateline Dam site, UINTA Co., 25 June (RES); Sinks Can. Rd. at Slate Cr., FREMONT Co., 1 July (JPB). *S. acadica*, 5 mi. NE. of Orin, Converse Co., 14 July (RES). *L. cupreus snowi*, single specimen, GTNP, June (BFC). *L. (Gaeides) xanthoides dione*: Lusk, NIOBRARA Co., & 5 mi. NE. of Orin, Converse Co., 14 July (RES). *L. (G.) editha montana*, uncommon, sagebrush areas, GTNP, late July & early Aug. (BFC). *L. (Epidemia) nivalis browni*, uncommon, GTNP, 24 June (BFC). *L. (E.) mariposa penroseae*, uncommon, low moist areas, GTNP, July (BFC). *P. shasta pitkinensis*, alpine meadows, GTNP, 20 July-6 Aug. (BFC). *G. piasus daunia*: fairly common, low open areas, GTNP, all June & early July (BFC); W/B, JOHNSON Co., 30 June (JPB). *B. exilis*, Lyman, UINTA Co. & WYOMING STATE RECORD, 7 Oct. (CFG). *P. faunus hylas*, CCP, UINTA Co., 25 June (RES). *V. cardui*, easily the most abundant Wyoming butterfly in 79, with a population explosion in June (BFC, RES) & flight extending into Oct.; no clear migratory patterns were observed. *V. annabella*: CCP, UINTA Co., 25 June (RES); single, Signal Mtn., GTNP, 6 July (BFC); 5 mi. NE. of Orin, CONVERSE Co., 14 July (RES); W. of Lander, FREMONT Co., 21 Aug. (PE, det. RES). *C. palla calydon*: W/B, 30 June (JPB); moderately common, 6800-10,000', GTNP, mid-June-early Aug. (BFC). *C. palla flavula*, nr. Battle Cr. Cpgrd., Carbon Co., 10 July (CDF--also recorded 34 other Rhop species & numerous moths, q.v.). *P. p. pallida*, W/B, JOHNSON Co., 30 June (JPB, det. RES). *E. (Hypodryas) gillettii*, common, Granite Cr. area, Gros Ventre Mts., Teton Co., 11-13 July (CDF--season advanced, with most species down in numbers). *E. (Occidryas) anicia maria* (ssp. det. tentative), CCP, UINTA Co., 25 June (RES). *E. (O.) anicia*, ssp., Granite Cr. area, Teton Co., 11-13 July (CDF). *E. (O.) editha hutchinsi*: W/B, JOHNSON Co., 30 June, & Sinks Can. Rd. at Slate Cr., FREMONT Co., 1 July (JPB, det. CDF); low meadows, GTNP, mainly July (BFC). *B. (Clossiana) freija browni*, CCP, UINTA Co., 25 June (RES--35 Rhop species were recorded that day, mainly previously unrecorded from little-known Uinta Co., in beautiful montane habitats along both E. & W. forks of the Smith's Fork River from 8700-9200' into Utah). *B. (C.) selene tollandensis*: few in willowed lowlands, GTNP, June (BFC); few, Granite Cr. area, Teton Co., 11-13 July (CDF). *B. (C.) titania ingens*, just emerging, *ibid.* (CDF). *B. (C.) kriemhild*: worn, *ibid.* (CDF); fresh, CCP, UINTA Co., 25 June (RES); common in montane meadows, late June & early July (stragglers into Aug.), GTNP (BFC). *S. egleis*, varying from *macdunnoughi* to *utahensis*, common, GTNP, late June-July; also 6 other *Speyeria* species incl. a single *S. zerene platina* at Jackson Lake, 10 July, & myriad *S. mormonia eurynomia/clio* all summer (BFC). JPB recorded 9 *Speyeria* sp. W/B (all known WY. sp. except *atlantis* & *idalia*) on 10 July. *S. hydaspe sakuntala* also taken at or nr. GTNP, 31 July (MET). *S. cybele leto*: boundaries of sagebrush flats and forested banks, GTNP, July (BFC); Yellowstone NP, 22 Aug. (PE). *C. haydeni*, common, GTNP, late June thru July (BFC). *N. ridingsii dionysus*, CCP, UINTA Co., 25 June (RES). *O. jutta reducta*, locally common with an "odd-year" cycle in GTNP, mid-June thru mid-July (BFC). *E. magdalena* common on talus slopes of Mt. Woodring, GTNP, TETON Co., July (BFC).

MOTHS: BFC & CDF submitted extensive records, and indicated that many more (esp. Noctuids & Geometrids) are yet to be determined. Interested persons should write to these contributors. Only the most popular and/or significant records are listed here because of space limitations. Light trapping and sugar baiting were poor to dismal (CDF). **SATURNIIDAE:** *H. eglanderina* common early July, & *H. hera* less common late July, GTNP (BFC). *H. hera* & *H. eglanderina annulata*, Granite Cr. CG., Teton Co., 11-12 July (CDF). **LASIOCAMPIDAE:** *Phyllodesma americana*: Pole Mtn., Albany Co., 21 June, & Battle Cr. CG., Carbon Co., 10 July (CDF). **SPHINGIDAE:** *H. senta*, Jackson Lake, early June (BFC). *H. gallii*, one in light trap, GTNP, TETON Co., 8 July (BFC). *P. clarkiae*, wet meadows, GTNP, TETON Co. & WYOMING STATE RECORD, 24-25 June (BFC-Rehg). *P. myops*, lowland aspen grove, GTNP, TETON Co., 12 June (BFC). **S. cerisyi**: several records, Albany, Carbon & Teton Cos., June-early July (BFC, CDF). *S. vashti*, few, GTNP, June (BFC). **S. gordius**, Battle Cr. CG., CARBON Co., 10 July (CDF). *P. modesta*, *ibid.* (CDF). **ARCTIIDAE:** *A. ornata*, Granite Cr. CG., TETON Co. and probable WYOMING STATE RECORD, 11-12 July (CDF). *A. nevadensis*, single at Pilgrim Cr., GTNP, TETON Co., 10 Aug. (BFC). *A. williamsi*,

multiple records from Carbon (CDF) & Teton (BFC, CDF) Cos., mid-June thru mid-July. *D. vagans*, uncommon, GTNP, TETON Co., early June (BFC). *H. maculata*, single, 2 mi. SW. of Moose, GTNP, TETON Co., 16 July (BFC). PERICOPIIDAE: *G. vermiculata*, low areas & up to 11,235', GTNP, TETON Co., July-Aug. (BFC). COSSIDAE: *C. undosus*, lowland cottonwood groves, GTNP, TETON Co., July (BFC). AGARISTIDAE: *A. mac-cullochi* & *A. langtoni*, GTNP, TETON Co., June (BFC). NOTODONTIDAE: *C. septentrionalis*, *H. occidentalis*, *I. brucei*, *P. rimosa* (BFC). NOCTUIDAE: *C. groteiana*: Pilgrim Cr., GTNP, TETON Co., 10 Aug. (BFC); Pole Mtn., Albany Co., 25 Aug. (CDF). *C. unijuga*, *ibid.* (CDF). NOCTUIDAE: Other: records for 32 genera! GEOMETRIDAE: over 50 genera so far, and still counting. This coordinator hopes that BFC & CDF will write a book on Rocky Mtn. moths! Meanwhile, small-moth enthusiasts are asked to write to CDF and Karolis Bagdonas directly for information on these groups. Also PYRALOIDEA.

UTAH: Contributors: GTA, BFC, JPB, CFG, RLK, RM, FJP, RES. Fide CFG, the Utah collectors are working closely together to assimilate a new consensus on their butterflies. Therefore we have received few data from them for 1979, but look forward to close collaboration in the next few years. CFG had updated our knowledge of the Rich Co. fauna based on his notebooks, augmented with 1979 records by RM and his team of Boy Scouts and leaders; Karolis Bagdonas and his "Flying Circus" of enthusiastic students (BFC) continued their study of the fauna of Crouse Canyon, Daggett Co.; JPB found many fascinating things in southern Utah; and RES sampled the north slope of the Uinta Mts. in late June en route to Seattle and Fairbanks.

BUTTERFLIES: About 40 tentatively new county records; no new state records. *T. mexicana nevada*, Red Banks CG, Logan Can., CACHE Co., 26 June (RES--27 Rhop sp. taken or observed, a fine locality). *E. icelus*, Red Spgs. CG, DAGGETT Co., 24 June (RES). *E. brizo burgessi*, WASATCH Co., 31 May (FJP). *E. persius fredericki*: Red Spgs. CG, DAGGETT Co., 24 June (RES); Gilbert Meadows, SUMMIT Co., 25 June (RES). *H. ericetorum*, Buckskin Mtn. area, Kane Co., 20 May (JPB). *P. (Hesperopsis) alpheus oricus*, *loc. cit.*, 13 May (JPB). *H. juba*, *ibid.*, KANE Co. (JPB); Flaming Gorge, DAGGETT Co., 24 June (RES). *H. comma harpalus*, Crouse Can., Daggett Co., 11 Aug. (BFC, det. CDF). *H. pahaska intermediate pahaska/martini*, Buckskin Mtn. area, KANE Co., 20 May (JPB). *O. garita*, Sheep Crk., DAGGETT Co., 24 June (RES). *P. phoebus sayii*, E. of Bear Lake Summit 7400', Rich Co. (RES). *P. zelicaon*, Crouse Can., DAGGETT Co., 15-16 June (BFC). *P. b. bairdii*, Pole Haven Can., Utah Co., 12 Aug. (RLK); first reported from Provo vcy. by Tom Spalding, 24 Aug. 1909, fide (CFG). *P. indra (?minori)*, Crouse Can., DAGGETT Co., 16 June (BFC). *P. multicaudatus*, Camp Bear Lake BSA, RICH Co., 26 June (RES). *P. protodice*, *ibid.* (RES). *A. prima* larvae (reared to pupae), Buckskin Mtn. area, KANE Co., 20 May (JPB). *H. crysalus*, Merkle Park, UINTAH Co., 11 Aug. (RLK). *I. fotis*, Buckskin Mtn. area, KANE Co., 13 May (adults) & 20 May (larvae on *Cowania mexicana*) (JPB). *I. eryphon*, Red Spgs. CG, DAGGETT Co., 24 June (RES). *M. siva*, at timberline on Marsh Peak (?ALT), Uintah Co., 8 July (BOH, fide JPB). *S. sylvinus*, Virgin River at St. George, WASHINGTON Co., 10 June (EARLY) (GTA). *L. cupreus*, nr. cupreus, W. of Bear Lake Summit, Cache Co., 26 June (RES). *P. shasta*, E. of Bear Lake Summit, Rich Co., 26 June (RES). *E. amyntula*, Red Spgs. CG, DAGGETT Co., 24 June (RES). *G. lydamus oro*: Crouse Can., DAGGETT Co., 15 June (BFC). *G. piasus daunia*, Red Spgs. CG, DAGGETT Co., 24 June (RES). *P. (Euphilotes) battoides* ssp. (features of both *ellisii* & *martini*, fide Oakley Shields via JPB) & *P. (E.) enoptes* (perhaps a new ssp.), Buckskin Mtn. area, Kane (battoides)/KANE (enoptes) Co., 13 May (JPB). *P. faunus hylas*: Red Spgs. CG, DAGGETT Co., 24 June (RES); fairly common but worn, Gilbert Meadows, SUMMIT Co., 25 June (RES). *L. weidemeyeri latifascia*, Camp Bear Lake BSA, Rich Co., 28 June (RM). *C. acastus*, Buckskin Mtn. area, KANE Co., 13 May (JPB). *P. tharos*, Crouse Can., DAGGETT Co., 15 June (BFC). *T. leanira alma*, Buckskin Mtn. area, Kane Co., 13 May (JPB). *E. (Occidryas) anicia* ssp., *ibid.* (JPB). *B. (Clossiana) kriemhild*, Gilbert Meadows, north slope of Uinta Mts., Summit Co., 25 June (RES). *S. coronis snyderi*, Crouse Can., Daggett Co., 15 June (BFC). *S. aphrodite ethne*, Crouse Can., DAGGETT Co., 11 Aug. (BFC, det. confirmed by CDF). *C. tullia ochracea*, Camp Bear Lake BSA, Rich Co., 26 June (RES), 28 June (RM).

MOths: The only data received are from BFC, all from Crouse Canyon, Daggett Co. Unless indicated otherwise, dates are 15-16 June. SATURNIIDAE: *A. p. polyphemus*, *H. gloveri*, *C. pandora*. SPHINGIDAE: *P. myops* (has assumed red coloration of quartzite rocks of canyon walls, as have several other species in Crouse Can.), *S. chersis*, *S. vashiti*, *S. dolli coloradensis*, *P. occidentalis*, *C. undulosa* (11 Aug.). ARCTIIDAE: *T. permaculata* (bivoltine, 15-16 June & 11 Aug.), *P. isabella*, *E. oregonensis*, *H. cunea*, *D. vagans*, *A. nevadensis* (11 Aug.), *A. picta* (11 Aug., good flight, perhaps endemic). SYNTOMIDAE: *L. grotei* (11 Aug.--poor year). LASIOCAMPIDAE: *G. arizonensis* (11 Aug.). COSSIDAE: *C. undosus*.

COLORADO: Contributors: BFC, JPB, GWB, PLE, PE, CDF, MSF, RLK, FJP, JAS, RES, MY. A generally cold, wet season followed a heavy winter snowpack and several prior dry years, so collecting was very poor and delayed. There were, of course, several exciting finds, incl. a new breeding resident butterfly species (see *Boloria*) and some odd exotic captures. Only 55 species were recorded by RES on an official July 4th count, and about 65 by the Marc Epstein party on another day, compared with over 100 the previous year. Because of the poor season, and the decision to emphasize Montana and Wyoming records in this Summary (Colorado has usually dominated the Zone 3 Summary), the lists which follow are bare-bones ones. There were 40 new county records for butterflies, 9 for larger moths.

BUTTERFLIES: *M. streckeri*, N. of Akron, WASHINGTON Co., 29 June (MY). *A. argos iowa*, Spring Can. below dam, Larimer Co. (2d known record), 27 June (CDF). *H. ottoe*, Sandstrom Ranch, ELBERT Co., 5 July (MSF). *H. leonardus (pawnee) montana*, oviposition seen on *Bouteloua gracilis*, nr. Deckers, Douglas Co., by RES (31 Aug.) & JAS (early Sept.). *P. phoebus sayii*, bilateral gynandromorph. Mt. Evans, Clear Cr. Co., 17 Aug. (BFC). *P. p. pseudorotgeri*, Uncompahgre Wilderness, San Juan Mts. (hereafter abbrev. UW), Hinsdale Co., 27-29 July (CDF). *P. b. bairdii*, Rist Canyon, Larimer Co., 26 July (BFC) (perhaps a hybrid? RES). *P. i. indra* flew well in Boulder (PLE) & Jefferson (RES) cos., as did *P. i. minori* at its type locality in Mesa Co. (MY), mid-late May. *P. eurymedon*, Cuchara Can., HUERFANO Co. (always rare in S. Colorado), 18 July (BFC). *A. drusilla neumogenii*, Santa Maria, PARK Co. and confirmatory STATE RECORD (only one sight record by FM Brown previously), 5 Aug. (Dale Barlow, specimen in PLE collection, det. RES). *Z. cesonia*, Krause Ranch Rd., WELD Co., 28 May (EARLY) (BFC). *C. affinis*, Airport Hill, Aspen, Pitkin Co., fairly common for 1st year since 1970, 13 June (RES). *S. californica*, Currant Ck, PARK Co., 2 July (GWB). *P. shasta minnehaha*, E. of Deadman Butte, Larimer Co. (2d known record), 10 July (MY). *E. comyntas*, fresh ♀, Wheat Ridge Pk., Jefferson Co. 11 Aug. (PE, det. RES). *V. cardui*, abundant intermittently statewide from mid-Apr. to Nov.; migrating strongly from S. to N. in Denver (22 Apr.) and up to 100/min. at Vail, Eagle Co. (14 June). A few *V. annabella* were mixed in, perhaps 1 per 1000 *cardui*, as early as 22 Apr. in Boulder (PLE, RES). *C. palla calydon*, nr. Elbert, ELBERT Co. & EAST, 27 June (JPB). *C. damoetas*, UW, HINSDALE Co., early Aug. (JAS). *Boloria (Clossiana) undescribed* species nr. *improba*, UW, HINSDALE Co., STATE & ROCKY MTN. REGION records (1st observed a year earlier by Larry Gall et al., who are describing it), 27-29 July (CDF) & 7 Aug. (JAS, who observed oviposition on the dwarf alpine willow *Salix nivalis* var. *saximontana*). *B. (C.) frigga sagata*, *B. (C.) freija browni* & *B. (C.) (Procllossiana) eunomia caelestis*, bogs 12-15 mi. W. of Buena Vista, CHAFFEE Co., 12 July (JPB, BOH). *B. (C.) selene sabulocollis*, Timnath bog population in serious danger of imminent destruction (MY). *S. mormonia eurynome*, oviposition at base of *Viola nuttallii*, nr. Lake Irwin, Gunnison Co., 4 Aug. (RLK). *S. zerebe sinope*: East Portal, Gilpin Co., 22 July (PE, det. RES); common, northern Larimer Co., early July (BFC); Hall Vy., PARK Co., 31 July (BFC, det. confirmed by CDF). *D. plexippus*, moderate numbers migrating northward in Denver, 22 Apr. (RES). *D. gilippus strigosus*, one seen, Denver, 18 May (EARLY) (RES). *E. (Cyllopsis) pertepida dorothea*, Coal Cr. Can., Jefferson Co., July (PLE). *C. pegala boopis*, fresh albino ♀, nr. Parker, Douglas Co., 9 Sept. (PE, det. RES). *O. uhleri reinthali*, UW, 27-29 July (CDF). *O. taygete edwardsii*, *ibid.* (CDF). *O. polixenes brucei*, Sprague Peak, RMNP, GRAND Co., 13 July (BFC). *E. theano demmia*, San Juan Mts., Ouray Co., 3-10 Aug. (JAS).

MOths: The big news is the rediscovery of *Euproserpinus wiesti*, found in fair numbers by BFC in Weld Co. SE. of Greeley, in late May; larvae were found on *Oenothera* in June. Other records of note: *A. polyphemus olivacea*, Bear Crk, Fremont Co., 12 June (BFC). *C. doris*, *ibid.* (BFC), & Rist Can., Larimer Co., 27 June (CDF). *Apantesis cervinoidea*, Mt. Evans, Clear Crk. Co., Aug. (BFC). *Neoarctia brucei*, Mt. Goliath, Clear Crk. Co., 19 July (BFC-1 sp.). *Leparctia lena*, nr. Stove Prairie, Larimer Co., 13 May (BFC). *Catocala luciana*, Brighton, ADAMS Co., 18 Aug. (BFC). *C. groteiana*: CHAFFEE Co., 10 Aug. & SUMMIT Co., 7 Aug. (BFC). *C. pura*, Colorado Spgs., EL PASO Co., 4 Aug. (BFC). We have hundreds of additional records, esp. for smaller moths; please write to Karolis Bagdonas, Univ. of Wyoming, Dept. of Zoology, Laramie 82071 for details.

NEW MEXICO: Contributors: GB, JPB, CDF, RH, JAS. Spring was cool; summer wet with some flash flooding (CDF marooned up a creek

once for seven hours, in which he hadn't seen water running in 14 years!) CDF & RH made extensive study of the Organ Mts., Dona Ana Co.; for convenience, these are listed separately at the end of this report, to avoid the necessity of repeating the locality data many times. All told there were 64 new county records for butterflies, of which 60 were from the Organ Mts. incl. one STATE RECORD (*E. polingii*, leg. CDF) and a confirmatory STATE RECORD (*I. henrici* nr. *solatus*, leg. RH, det. CDF). Many moth records may be new also, but our data base is too skimpy to make reasonable guesses now, so they are listed mainly without comment. CDF did extensive collecting, with many moths as well as butterflies, in the Sandia, Manzano, Jemez, Burro, Black, Mimbres & Pinos Altos Mts., as well as in intervening flatlands; space allows listing only the most noteworthy of these.

BUTTERFLIES: (excl. Organ Mts.) *E. c. clarus*, TAOS Co., late Aug. (JAS). *E. icelus*, nr. Sandia Crest, BERNALILLO Co., 19 June (GB). *S. ceos*, Bayard, Grant Co., 10 Aug. (CDF). *A. python*, N. Sandia Mts., Sandoval Co., 6 June (CDF). *O. snowi*, McMillan CG, GRANT Co., 9 Aug. (CDF). *H. p. pahaska*, many records and often abundant, Sandia Mts., Bernalillo & Sandoval Cos., 24 May thru 15 June and 2d brood 2 Aug. (CDF). *P. pirus*, RIO ARRIBA Co., June (Glenn R. Scott, fide JAS), and also at Clear Cr. CG, Jemez Mts., same Co., 30 July (CDF). *P. polingii*, Cherry Cr. Can. & McMillan CG, Grant Co., 8-9 Aug. (CDF). *P. multicaudatus*, Black Range, Hwy. 90, milepost 84.5, Grant/SIERRA Co. line?, 7 Aug. (CDF). *C. alexandra* ssp. Signal Pf., GRANT Co., 1 July (CDF). *S. macfarlandi*, Sandia Mts., Bernalillo & SANDOVAL (confirmatory) Cos., larvae on *Nolina texana*, 25 May, adults sometimes common 31 May-6 June (CDF). *E. quaderna*, Black Range, Hwy. 90 at MP 84.5, 7 Aug. (CDF). *H. titus* nr. *immaculosus*, perching on gooseberry bushes, Calavaras CG, SANDOVAL Co. & WEST for NM, 31 July (CDF). *E. ontario ilavia*, Cherry Cr. Can. (RANGE EXTENSION), Grant Co., 7 July (CDF). *E. battoides centralis*, 2d specimen in 14 years, Gallinas Can., Mimbres Mts., Grant Co., 7 Aug. (CDF). *L. arthemis arizonensis*, *ibid.* (CDF). *T. leanira fulvia*, nr. Palizo CG, Jemez Mts., Sandoval Co., 14 June (CDF). *P. minuta/arachne*, 4 mi. N. of Capulin, UNION Co., 26 June (JPB). *S. atlantis nikias*, Jemez Mts., Rio Arriba & Sandoval Cos., 30-31 July (CDF). *C. pertepida dorothea*, La Cueva Can., Sandoval Co., 15 June (CDF).

MOTHS: (Excl. Organ Mts.) All records CDF, here greatly abridged, in alphabetical order by genus: *Catocala amatrix*, Albuquerque, Bernalillo Co., 1-4 Aug. *C. euphemia*, Gallinas Can., Grant Co., 7 Aug. *C. pura*, *C. arizonae*, *C. ilia* (=zoe), Cherry Crk. Can., Grant Co., 8 Aug. *Euparthenos nubilis*, diurnal and nectaring, Manzano Mts., Torrance Co., 7 June; also observed nr. Battleship PG, Sandoval Co., 14 June. *Haploa lecontei*, *Hemihyalea labecula*, large *Hemihyalea* or *Halisdota* species, *Hyppopacha grisea*, *Quadrina diazoma*, *Sphinx chercis*, *Tolype glenwoodi*, et al., Cherry Cr. Can., Pinos Altos Mts., Grant Co., 8 Aug. *Malacosoma californicum*, Calavaras CG, Sandoval Co., 31 July. *Phaeoura mexicana* & *Turuptiana permaculata*, Clear Cr. CG, Rio Arriba Co., 30 July. *Phyllodesma americana*, Gallinas Can., Mimbres Mts., Grant Co., 7 Aug. ORGAN MTS. DONA ANA CO: Desert range with a few wet canyons, oaks and rare Douglas Fir stands, collected by RH & CDF by special permit (mostly military property). Following lists are grossly abridged; butterflies are RH/CDF (usually both), while all moth records are by CDF. **BUTTERFLIES:** (All county records except those preceded by *): *A. simius*, *A. aenus*, *A. oslari*, *A. texanae*, *A. vierecki*, *A. python*, *A. nysa*, *Y. carus*, *A. arene*, *C. nessus*, *E. meridianus*, *E. tristis tatus*, *C. hippalus*, *E. clarus buachuca*, *P. polyxenes/bairdii* complex incl. some nr. *rudkini*, **A. pima* (2d STATE rec.), **A. mormo duryi*, *M. spinetorum*, *I. henrici* nr. *solatus* (leg. RH, det. CDF; previously known only from Eddy Co. in NM), *E. polingii* (CDF-STATE rec.), *E. r. rita*, *L. arthemis arizonensis*, *P. vesta*, *T. fulvia*, *I. theona* intermediate between *thekla* & *bolli* (larvae on Castelleja), *M. rubricata* ssp., *C. meadii mexicana*. Some *I. pylades* ♀♀ were typical, while others were of the form "albosuffusa" or intermediate. **MOTHS:** Collecting hampered by wind, rain or full moon; most Notuids and Geometrids not yet determined to species. Highlights (alphabetical): *Alypiodes bimaculata*, *Apantesis nevada* (tentative det.), *Catocala desdemona*, *C. frederici*, *C. verrilliana*, *Copidyra gloveri*, *Halisdota argentata*, *Holomelina* sp., *Malacosoma californicum*, *Manduca quinque maculata*, *Matigramma rubrosuffusa* (abundant), *Olceclostera seraphina* (29 May-possible STATE rec.), *Pygarctia* sp., *Sphingocampa hubbardi*.

ZONE 4: SASKATCHEWAN, MANITOBA, N. & S. DAKOTA, NEBRASKA, KANSAS, OKLAHOMA, TEXAS. Coordinator: H.A. Freeman. Contributors: George W. Busby III, Ken Davenport, H.A. Freeman, William H. Howe, John Jordison, Ron Leuschner, David Prochnow, R.E. Stanford family (Ray, Kit, Linda & Scott), & Steve Spomer. Coverage very spotty this year. General Conditions: Locally very good, esp. in the Dallas area of Texas. Generally average or slightly below normal in most of the area.

SOUTH DAKOTA: Ray Stanford reported the following from Spearfish Canyon, elev. 4600', Lawrence Co., 13 July: 17 species incl. one apparent COUNTY record (*Danaus plexippus*). Others included *Epargyreus clarus*, *Erynnis persius fredericki*, *Polites origenes rhenae*, *Euphyes vestris* ssp., *Papilio glaucus*, *Strymon melinus*, *Plebejus icarioides*, *Everes comyntas*, *Glaucopsyche lygdamus* ssp., *Cercyonis pegala* ssp., *Limenitis weidemeyeri oberfoellii*, *Polygonia progne*, *Phyciodes campestris camillus*, *P. tharos*, and *Speyeria coronis* ssp. Robinson Flats and Driftwood Canyon, 3900-4100' elev., extreme south end of Black Hills, R2E-T75, Fall River Co., 14 July: 13 species incl. 10 COUNTY records, indicated by *: **Thorybes pylades*, **Pyrgus communis*, **Euphyes vestris*, *Atrytone arogos iowa*, **Polites themistocles*, *Polites origenes rhenae*, **Colias philodice*, *Mitoura siva*, **Cercyonis pegala boopis*, **Nymphalis antiopa*, **Charidryas gorgone carlota*, **Speyeria aphrodite* ssp., and **Euptoieta claudia*.

NEBRASKA: Steve Spomer reported the following: COUNTY records; *Incisalia h. henrici*, Lincoln, Lancaster Co., 26 Apr., *Euptychia cymela*, Lincoln, Lancaster Co., 25 June, *Polygonia progne*, Dodge Co., 6 Aug., *P. comma*, Washington Co., 16 Apr., *Lycaena thoe*, Saunders Co., 2 Aug., *Speyeria idalia*, Saunders Co., and *Phoebis sennae eubule*, Richardson Co., 26 Aug. Choice moths, not county records: *Erebus odora*, Lincoln, Lancaster Co., 6 July, and *Stiria rugifrons*, Lincoln, Lancaster Co., 18-24 Aug. David Prochnow reported: The following species were collected in Sarpy Co., nr. Bellevue: *Papilio crespontes*, June-Sept., *P. polyxenes*, June-Sept., *P. glaucus*, June-Sept., *Limenitis arthemis astyanax*, June, *Eacles imperialis*, July, *Actias luna*, July-Sept., & *Hyalophora cecropia*, July-Sept. John Jordison reported: This year was an excellent season with normal precipitation throughout. Two species which appeared to be rather scarce were *P. polyxenes* & *J. coenia*. Species reared in '79 included *V. atalanta*, *V. cardui*, *A. celtis*, *A. clyton*, & *Zanthotype sospeta*. The following species were collected in Douglas and Sarpy Cos., nr. Omaha: *Lethe portlandia* *anthonedon*, *Limenitis astyanax*, *L. archippus*, *Papilio glaucus*, *P. crespontes*, *P. polyxenes*, *Polygonis interrogationis*, *P. comma*, *P. progne*, *Strymon melinus*, *Everes comyntas*, *Celastrina argiolus*, *C. argiolus pseudoargiolus*, *Poanes hobomok*, *Pyrgus communis*, *Atalopedes campestris*, *Epargyreus clarus*, *Speyeria cybele*, *Euptoieta claudia*, *Phyciodes tharos*, *Charidryas nycteis*, *Amblyscirtes vialis*, and *Lycaena xanthoides dione*.

MOTHS: *Samia cecropia*, *Smerinthus geminatus*, *Alypia octomaculata*, *Hyles lineata*, *Catocala dejecta*, *Euparthenos nubilis*, *Amphipyra pyramidoides*, *Desmia funeralis*, *Zale lunata* and *Eumorpha achemon*.

KANSAS: William H. Howe reported two unusual moths from Ottawa, collected on the same night, 1 Sept., a ♀ *Erebus odora* by Jean Gardner and a *Thysania zenobia* by Marge Jefferis.

OKLAHOMA: Ken Davenport collected in the Noble-Lexington area, 9-16 May and obtained the following species: *Polygonia interrogationis*, *Anaea andria*, *Asterocampa alicia*, *Euptoieta claudia*, *Charidryas nycteis*, *C. gorgone carlota*, *Phyciodes tharos*, *Limenitis archippus*, *Euptychia cymela*, *Papilio glaucus*, *P. polyxenes*, *Battus philenor*, *Colias* (*Zerene*) *cesonia*, *Eurema nicippe*, *E. mexicana*, *E. lisa*, *Nathalis iole*, *Anthocharis midea*, *Euchloe olympia*, *Heniargus isola alce*, *Everes comyntas*, *Epargyreus clarus*, *Achalarus lyciades*, *Thorybes pylades*, *T. bathyllus*, *T. confusus*, *Erynnis juvenalis*, *E. brizo*, *Pholisora catullus*, *Staphylus hayhurstii*, *Amblyscirtes vialis*, *A. nysa*, *Atrytonopsis turneri*, *Hesperia metea licinius*, and *Polites themistocles*. Specimens collected at Nicut, nr. Muldrow, 14 May: *Papilio troilus*, *P. crespontes*, *P. polyxenes*, *Polygonia comma*, *Calycopis cecrops*, *Poanes hobomok*, and several of the same species collected in the Noble-Lexington area.

TEXAS: Ron Leuschner reported on a trip that he took to west Texas in April: Kent, Reeves Co., 9 Apr. A few *Prodoxus coloradensis* beaten from Yucca. Davis Mt. State Park, 9 Apr., blacklighted there, got 290 moths total. *Apantesis nevadensis* was very common,

Cressonia juglandis alpina & Phytometra curvata were good catches. Davis Mt. Resorts, 10 Apr., set up a blacklight in T. Taylor's backyard. Got 150 moths with the best species being Acrionicta brumosa persuasa, Hydriomena furtivata, Phaeoura perfidaria, & P. cristifera. The following day found one each of Thorybes drusius? & Stinga morrisoni. Nr. Ft. Davis, 9 Apr., many skippers on the sunny slopes. Got 25 Rhop. total incl.: Erynnis tristis, Phyciodes picta, P. vesta, Atrytonopsis pittacus, Celotes nessus, Amblyscirtes eos & A. nysa. In the grass flushed up one Caenurg. distincta. George W. Busby III reported that collecting was relatively good in Texas this year and that the only unusual capture was a specimen of Panhiades m-album, 14 Oct., at Alief, Houston, Harris Co. H.A. Freeman reports that the usual species found in the Dallas area were out in very large numbers this year. The two most unusual catches were a specimen of Euphyes dion during Sept. on the L.B. Houston Golf Course and during June Feniseca tarquinius was unusually common in my yard in Garland (possibly indicating that I need to spray for aphids). This species has been found in the Dallas area only twice in previous years.

ZONE 5: EASTERN-MIDWEST: MISSOURI TO MINNESOTA TO MICHIGAN. Coordinator: M.C. Nielsen. Contributors: G. Balogh (GB), J. Bess (JB), S. Borkin (SB), R. Boscoe (RB), F. Bower (FB), R. Bracher, C. Burkhart (CB), J. Calhoun (JC), P. Conway (PC), D. Currutt (DC), W.&A. Duesterbeck (WD), L. Ferge (LF), L. Gibson (LG), M. Grocuff (MG), D. Hess (DH), G. Holbach (GH), R. Huber (RH), F. Karpuleon (FK), T. Kral (TK), R. Kuehn (RK), I. Leeuw (IL), L. Martin (LM), M. Myers (MM), M. Nielsen (MN), D. Oosting (DO), P. Opler (PO), J. Parkinson (JP), S. Spomer, R. Webster (RW), R. Williams (RWM), D. Wright (DW). Other collectors cited: D. Ahrenholz (DA), R. Borth, C. Covell (CC), L. Crabo (LC), R. Heitzman (H), R. Irwin (RI), K. Lukasavitz (KL), C. Lundene (CL), J. Maxwell (JM), W. Miller (WM), J. Perona (P), D. Schmidt (DS), Y. Sedman (YS), J. Zeligs. General Comments: The extremely cold winter over most of the Zone, the third successive record cold winter, retarded the collecting season by one to two weeks in most northern areas. Yet, the season was still a very productive one for many. P. crespontes was up again, and V. cardui reappeared in most areas; Asterocampa was abundant throughout. A good movement of southern migrants occurred in northern areas: D. plexippus enjoyed a good season, but no fall migrations were reported. While fewer detailed reports were filed, more collectors took time to account for moths--a good sign! A total of 152 butterfly species and 43 Catocala species were recorded for the zone! An asterisk (*) indicates a new county record and/or range extension.

MISSOURI: Two brief reports were filed. Hess, collecting Camden, Douglas & Monroe Cos. on 23-25 July recorded: P. byssus, W. egeremet, C. cesonia, C. cecrops, A. andria & C. pegala (incl. texana-olympus intergrades). Spomer collecting on 30 June at Columbia, Boone Co., took C. epione, coccinata & similis.

KENTUCKY: Gibson, Hess and Webster sent in brief reports from several counties. Covell (reporting for others in the Newsletter of Soc. of Kent. Lepid.) enjoyed successful collecting trips to Big Black Mtn. in April and counties south of Paducah in September--both trips yielding state records and numerous choice species.

CHOICE BUTTERFLIES: E. dion, 15 Sept., Graves* Co. (2nd state record-CC); E. vestris metacomet, 16 Sept., Fulton Co. (CC); A. delaware, W. egeremet, 15 Sept., Graves Co. (CC); U. proteus, 15 Sept., Graves* Co. (2nd state record-CC); P. virginianus, 14-21 Apr., Harlan, Leslie, Menifee Cos. (CC, RW); E. lisa nicippe, 15 Sept., Fulton Co. (CC); A. midea, 14-21 Apr., Edmunson, Harlan, Menifee Cos. (CC, DH, RW); E. olympia, 19 Apr., Edmunson Co. (nectaring on chickweed and bluets-DH); C. gryneus, 14-19 Apr., Edmunson, Menifee Cos. (DH, RW); C. augustinus, 14 Apr., Menifee Co. (RW); C. henrici, 14-19 Apr., Edmunson, Leslie, Menifee Cos. (DH, RW); S. caryaeovorus, 30 June, Campbell* Co. (LG); H. hyllus (L. thoe), 15 Sept., Graves Co. (CC); C. ebenina, 14 Apr., Menifee Co. (RW); A. andria, 18-19 Apr., Edmunson Co. (DH); B. bellona, 20 Apr. Harlan Co. (CC); S. diana, 15 July, Harlan Co. (fresh ♂-LG); L. portlandia missarkae, 16 Sept., Butler* Co. (2nd state record-CC); L. appalachia, 15 Sept., Graves Co. (CC).

CHOICE MOTHS: P. epimenis, 21 Apr., Harlan Co. (CC); C. insolabilis, 11-19 July, Boone*, Owsley* Cos. (LG); C. dulciola, 26 June-3 July, Big Boone Lick S.P., Boone* Co. (2 ♂, 1 ♀-LG); C. clintoni, 6-26 June, Boone*, Owsley* Cos. (LG); C. minuta, mid-June-early-July, Boone* Co. (LG); T. albiovittata, 21 Apr., Harlan Co. (CC); I. basalis, 21 June, Otter Ck. P., Meade* Co. (LG). **STATE RECORDS:** P. yehi, 15 Sept., Fulton Co. (CC); O. revicta, 20 Apr., Harlan Co. (CC); M. pulverinea, 16 May, Columbia-Belmont S. P., Hickman Co. (LG); P. exprimens, 20 July, Red River Gorge, Menifee Co. (LG); B. obliqua, 1 June, Big Boone Lick S.P., Boone Co. (LG); M. ostreonalis, 13-20 July. RRG, Menifee Co. (approx. 300 mi. range ext. to S.-LG); I. afflictana, 20 Apr., Harlan Co. (CC).

WEST VIRGINIA: Bower filed a brief report for the Tygart Lake area, Taylor County and at lights around Morgantown. Opler and Zeligs made eight trips to shale barrens east of Sugar Grove, 2,000', Pendleton Co.; they recorded a total of 63 butterfly species, with a high of 39 species on 18 July. Boscoe reported on his observations of E. olympia foodplant and rearing.

CHOICE BUTTERFLIES: P. ocala, A. delaware, 18 July (PO); H. metea, 27 May (PO); H. sassacus, 27 May-16 June (PO); T. lineola, 16 June-18 July (PO); P. centaureae, 29 Apr.-6 May (PO); G. marcellus, B. philenor (common), P. troilus, 12 May, Taylor Co. (FB); P. napi oleracea, 12-19 May, Taylor, Webster Cos. (FB); E. olympia, 29 Apr. (PO); C. henrici, 12 May, Taylor Co. (worn ♀-FB); E. ontario, 16 June (PO); C. neglecta-major, 13-27 May (PO); F. tarquinius, 30 May, Taylor Co. (FB); P. progne, 18 July (PO); P. pascoensis, 18 July (PO); E. phaeton, 16 June (PO); B. bellona toddi, 6 Oct. (1 ♀-PO); S. cybele, 28 June, Summers Co. (FB); E. cymela, 12 May, Taylor Co. (abundant-FB).

CHOICE MOTHS (all FB): S. franckii, 15-29 July, Monongalia Co.; M. jasminearum, 15 July, Monongalia Co.; D. inscripta, 19 May, Taylor Co.; A. nessus, 15 May, Taylor Co. (in copula); C. angulifera, mid-July-mid-Aug., Monongalia, Nicholas, Summers, Taylor Cos. (common); E. imperialis, C. regalis, 14 July-4 Aug., Monongalia Co.; E. scribonia, mature larvae crossing rd. in large numbers on 15 May, Taylor Co.; E. odorata, 29 July, Monongalia Co. (worn ♀). **FOODPLANT RECORD:** E. olympia, larvae on Arabis serotina (PO); and olympia ova and larvae on A. laevigata on 2 May, Hampshire Co.; confined ♀♀ oviposited on Barbarea vulgaris, but larvae failed to develop until transferred to A. laevigata; young larvae fed on flowers and buds, while older larvae fed on leaves and stems (RB).

OHIO: Currutt and Martin, reporting for North Central and Northeastern Ohio, found winter with below normal temperatures in Jan. and Feb., but with normal precipitation. The season started about 10 to 14 days late, and never did catch up! A very wet Aug. retarded some later emergences. Generally, numbers were above normal, esp. Nymphalidae, Lycaenidae, & Hesperidae; and P. crespontes was found in good numbers again this season. Martin recorded 68 butterfly species--a good number for that part of the state! Calhoun reporting from Westerville, and Bower from South Point, Lawrence Co., found S. cybele common in June. Nielsen and Webster, tapping for Catocala in an oak-hickory woods on 1 Sept., Paulding Co. recorded 17 species, incl. obscura, residua, angus ♀ lucetta (1) and insolabilis (2 worn ♂).

CHOICE BUTTERFLIES: A. samoset, 5-6 May, Vinton Co. (DC); E. conspicua, 21 July, Huron* Co. (LM); E. dion, Cuyahoga* Co. (DC); P. viator, 18 July-4 Aug., Geauga*, Lake, Portage*, Summit Cos. (DC, IM); P. zabulon, 6 Aug., Belmont Co. (DH); H. sassacus, 9 June, Lake Co. (DC); P. centaureae wyandot, 5-6 May, Vinton Co. (worn-DC); E. brizo, 5-6 May, Vinton Co. (abundant-DC); A. lyciades, 17 June, Cuyahoga* Co. (DC); P. glaucus (dark ♀♀), G. marcellus (summer form), 27 June, Lawrence Co. (common-FB); A. midea, 5-6 May, Vinton Co. (common-DC); S. acadica, liparops, 10-14 July, Portage Co. (common DC); G. lygdamus ssp., 5-6 May, Vinton Co. (worn-DC); A. clyton, 2 Aug., Montgomery Co. (DH); C. nycteis, 17 June, Cuyahoga Co. (DC); C. harrisii liggettii, E. phaeton, 10 June, Portage Co. (abundant-DC, IM); B. bellona, 27 June, Lawrence Co. (common-FB); S. idalia, June-4 Aug., Delaware, Geauga*, Summit* Cos. (JC, DC); C. pegala alope (incl. one nephele), 2-6 Aug., Belmont, Montgomery Cos. (DH). **FOODPLANT RECORD:** P. crespontes, 20 Sept., nr. Wellington, Lorain Co., full grown larvae found on Zanthoxylum (LM).

INDIANA: Bracher found butterflies scarce in the South Bend area, and Conway reported heavy habitat destruction at Griffith South Park. Conway found G. lygdamus ssp. common on 10 May; yet the colony is being heavily damaged by ORVs and will probably disappear

unless such use is regulated!!

CHOICE BUTTERFLIES: *E. bimacula*, 28 June-6 July, Lake Co. (DO); *P. origines*, 6 July, Jasper, Lake Cos. (DO); *B. philenor*, 23 Aug., Knox Co. (DW); *P. cresphontes*, 2-21 Aug., Elkhart, Henry, Howard Cos. (CB, DH, DW); *G. marcellus*, 6-21 Aug., Elkhart, Howard Cos. (CB, DW); *P. protodice*, 6 July, Jasper Co., (common-DO); *S. melinus*, 6-19 Aug., Elkhart Co. (CB); *L. bachmanii*, *A. clyton*, *C. cardui*, 6-19 Aug., Elkhart Co. (CB); *N. milberti*, 19-21 Aug., Hamilton, Howard Cos. (large nos.-DW); *P. progne*, 6-19 Aug., Elkhart Co. (CB); *C. nycteis*, 23 Aug., Knox Co. (huge colony-DW); *B. bellona*, 20 Apr., 6-19 Aug., Clark, Elkhart Cos. (CB, DH); *S. idalia*, 28 June-6 July, "Vicki-I-Love-You Prairie," Lake Co. (DO); *S. aphrodite f. alcestis*, 6-19 Aug., Elkhart Co. (CB); *L. anhedon*, 23 Aug., Knox Co. (DW); *L. appalachia leeuwi*, 6 July, Jasper Co. (DO); *L. eurydice*, 6-19 Aug., Elkhart Co. (unusually small sized--CB); *E. eurydice* nr. *fumosa*, 24 June-6 July, Lake Co. (common-DO). STATE RECORD: *H. ottoe*, 6 July, Jasper Co. (2 fresh ♂-DO).

ILLINOIS: Hess reported in detail covering west-central counties. Spring started late with *V. atalanta rubria* & *P. comma* on 12 Apr.; and *E. brizo* & *C. argiolus pseudargiolus* first observed on 25 Apr. Conditions lagged thru May, but by early June, emergences were nearly normal in contrast to 1978. Hess noted some marsh skipper habitat destruction nr. Cameron due to road construction, and considerable flood damage to habitat just west of Meredosia when levees broke along the Illinois river. Hess recorded 92 butterfly species, and found the following abundant: *P. communis*, *P. cresphontes*, *P. rapae*, *A. celtis*, *clyton* (June), *V. a. rubria* (early broods), *C. cardui*, *P. coenia*, *N. antiopa*, *B. bellona* (continuing to spread S. and W.), & *L. anhedon*. Species found making a comeback included *P. zabulon* & *P. troilus*; and *N. milberti* was not observed for the first time since 1975! Also down were *P. glaucus*, *P. protodice* & *C. henrici*. *Catocala* were in high numbers in late June to Aug., and *C. amatrix* & *cara* were common in Sept. Conway found the season normal, with drought in mid-summer causing a reduction in central Illinois butterfly populations. Myers, reporting from the Chicago area, experienced the coldest winter and driest August in history, and a very poor collecting season. He and Rozycki recorded 23 species of butterflies, incl. *P. glaucus*, dark ♀♀, and *L. bachmanii*.

CHOICE BUTTERFLIES: *A. hianna*, 10 May, Green Co. (DH, YS); *E. bimacula*, 10 July, Winnebago Co. (PC); *E. conspicua*, 10 July, Cass Co. (DH); *P. viator*, 16 July, Cook Co. (IL); *P. zabulon*, 27 May-21 June, McDonough Co. (IL); *P. comma*, 26 Aug., Fulton* Co. (DH, YS); *P. byssus*, 4-20 July, McDonough Co. (DH, YS); *A. campestris*, 31 Aug., McDonough Co. (1 ♀-DH); *H. metea*, 10-25 May, Greene, Mason*, Scott* Cos. (DH, YS); *H. ottoe*, 7-14 July, Mason, Winnebago Cos. (PC, DH, IL); *H. leonardus*, 25 Aug.-11 Sept., Mason, McDonough Cos. (DH); *H. phylaeus*, 23 Sept., McDonough Co. (1 ♂-DH); *E. baptisiae*, 22 July, Winnebago Co. (IL); *E. martialis*, 12-25 May, 10-14 July, Mason Co. (DH, H, RI, YS); *S. hayhurstii*, 25 May-8 June, Mason, McDonough Cos. (DH); *C. cesonia*, 14 July, Mason* Co. (DH); *P. senae eubule*, 26 Aug., Fulton*, Mason Cos. (DH); *E. nicippe*, 14 July-2 Sept., Brown*, Mason Cos. (DH); *E. lisa*, 23 Aug., Cook Co. (1st in 10 yrs.-MM); *N. iole*, 10 June-27 Oct., Cass, Fulton, Hancock, Jersey Mason, McDonough, Schuyler* Cos. (DH, YS); *A. midae*, 17 Apr.-12 May, Jackson Co. (H, RI); *E. olympia rosa*, 12-25 May, Mason Co. (DH, YS); *C. gryneus*, 5 May, 10 July, McDonough Co. (DH, RI); *C. henrici turneri*, 17 Apr.-12 May, Greene, Hancock*, Jackson, McDonough Cos. (DH, H, RI, YS); *S. melinus*, 4 July-31 Aug., Hancock, McDonough Cos. (DH, YS); *S. liparops strigosa*, 18-28 June, Hancock, Kane Cos. (DH, IL, YS); *L. xanthoides dione*, 14 June-10 July, Cass, Hancock*, McDonough Cos. (DH, RI, YS); *H. isola*, 2 July, Hancock* Co. (YS); *G. lygdamus* ssp., 6 May, Hancock* Co. (DH); *C. ebenina*, 15 May, McDonough Co. (2nd state record-DH); *F. tarquinius*, 2-25 May, Hancock*, McDonough Cos. (2nd county record-DH, YS); *A. andria*, 6 May-27 Oct., Cass, Greene, Hancock*, Jersey Cos. (DH, YS); *A. clyton*, 7 July, Mason Co. (PC); *P. progne*, 8 June-7 Oct., Hancock*, McDonough Cos. (DH, YS); *E. phaeton ozarkae*, 18-19 June, Hancock Co. (DH, YS); *B. bellona*, 5 May-8 Oct., Cass, McDonough Cos. (DH, YS); *S. aphrodite f. alcestis*, 10 July, Winnebago Co. (PC); *S. idalia*, 14 June-14 July, Cass, Mason Cos. (DH).

CHOICE MOTHS: *D. inscripta*, 9-10 May, McDonough Co. (DH, YS); *E. pandorus*, 2 Aug., McDonough Co. (YS); *P. furcata*, 25 Sept., McHenry Co. (IL); *D. lucens*, 28 July, Lake Co. (IL); *C. judith*, 18 Aug., McHenry Co. (IL); *C. nebulosa*, 2 Aug., McDonough Co. (YS); *C. meskei f. krombeini*, 18 Aug., McHenry Co. (IL); *C. whitneyi*, 10, 29 July, Winnebago Co. (IL); *C. minuta*, 18 Aug., McHenry Co. (IL). **FOODPLANT RECORDS:** *P. polyxenes asterius*, 15 July, oviposition on *Cryptotaenia canadensis*, 21 Sept. larva on *Pastinaca sativa*, McDonough Co. (DH). **PREDATORS:** *E. brizo*, 4 May, taken by crab spider on *Viola pedata*, McDonough Co.; *C. dardui*, 23 Sept., taken by Carolina Mantis on *Zinnia*, McDonough Co. (DH).

IOWA: No reports.

MINNESOTA: Huber, and several others, covered 'seldom-hit' counties in SE. Minn. and turned up 103 species of butterflies, with 145 new county records. *P. cresphontes* put on a good showing in SE. counties for second straight year, and some southern migrants arrived very early.

CHOICE BUTTERFLIES: *A. hianna*, 26-29 June, Norman*, Polk* Cos. (DS); *P. origines*, 4 Aug., Wabasha* Co. (CL); *H. pawnee*, 21-27 Aug., Lincoln, Norman* Cos. (IL, DS); *H. dacotae*, 9 July, Norman* Co. (DS); *O. powesheik*, 30 June, Norman* Co. (DS); *C. palaemon mesapano*, 23 June, Chisago*, Pine* Cos. (RH, CL); *P. cresphontes*, 4-18 Aug., Wabasha*, Winona* Cos. (CL); *P. napi oleracea*, 18-21 July, Becker*, Sherburne* Cos. (LC, CL); *N. iole*, 16 June, Lake Co. (on Labrador Tea flowers-DA); *S. caryaevorus*, 18 Aug., Wabasha* Co. (CL); *L. m. melissa*, 21 Aug., Lincoln Co. (IL); *H. isola*, 2 Aug., Norman* Co. (DS); *F. tarquinius*, 4 July, Ramsey Co. (LC); *S. idalia*, 19 July-4 Sept., Lincoln, Norman*, Polk* Cos. (IL, DS); *L. appalachia leeuwi*, 21 July, Sherburne Co. (JM).

WISCONSIN: Ten reports were filed for the best coverage in the Zone. Despite cold spring weather, Ferge found emergence of the first spring butterflies occurred about the normal time. *N. antiopa*, *vau-album*, & *Polygonias*, continued to be abundant; *Speyeria* were again scarce. Autumn weather was cool, although few notable southern migrant butterflies were encountered, and migrant Noctuids *A. argillacea* & *A. gemmatilis* were collected in Oneida Co. on 20 Oct. Kral reported that the winter was one of the coldest with 12 to 16" of snow through most of the winter. By 12 May, most spring butterflies were a-wing and appeared in above average numbers; esp. abundant were *E. juvenalis* & *E. olympia* which were swarming by the hundreds in May. A large number of *Polygonia* and *C. cardui* were taken through the end of Oct. Kral collected a total of 73 butterfly species and a large number of moths during the season.

CHOICE BUTTERFLIES: *A. hianna*, 28 May, Adams Co. (GB); *P. viator*, 4 Aug., Winnebago Co. (RWM); *P. origines*, 30 June, Green Co. (LF); *H. metea*, 19-28 May, Adams Co. (nectaring on bird's foot violet-GB, TK, RK); *H. comma laurentina*, 4-26 Aug., Florence*, Iron, Sawyer Cos. (WD, JP); *H. ottoe*, 24 June-12 Aug. (very late), Grant, Green, Waushara Cos. (GB, LF, IL, JP, RWM); *H. pawnee-leonardus*, 24 Aug.-8 Sept., Green Co. (LF, RK, JP); *O. powesheik*, 30 June, Walworth*, Waukesha Cos. (LF, JP); *C. palaemon mesapano*, 2-17 June, Florence, Fond du Lac, Marinette, Washington, Waushara Cos. (GB, JP RWM); *P. communis*, 19 May, 10 Aug.-8 Sept., Eau Claire*, Grant, Green, Juneau Cos. (GB, LF, FK, RK, TK, JP); *E. lucilius*, 6 June-26 Aug., Grant, Juneau Cos. (GB, TK, IL); *E. persius*, 20-29 May, Adams, Burnett, Monroe* Cos. (GB, LF); *P. cresphontes*, 31 July-2 Sept., Crawford, Dane, Eau Claire*, Juneau, Sauk Cos. (GB, WD, LF, TK, JP); *P. virginianus*, 26-28 May, Marathon, Vilas Cos. (GB, LF); *P. napi oleracea*, 31 Aug., Juneau Co. (3rd brood (?)-GB); *P. philea*, 18 Aug., Washington* Co. (2nd state record-KL); *E. lisa*, 29 July, Washington Co. (KL); *N. iole*, 4 Aug.-26 Sept., Eau Claire, Florence*, Grant, Green, Juneau Cos. (WD, TK, JP); *C. gryneus*, 15 May, 12 Aug. (worn), Green Co. (GB, LF); *C. irus*, 20 May, Adams Co. (Borth, RK); *C. polius*, 20-27 May, Adams, Burnett, Douglas Cos. (GB); *C. henrici*, 12 May-6 June, Burnett, Juneau, Oneida Cos. (GB, LF, TK, RW); *S. caryaevorus*, 30 June-1 Aug., Green, Waushara Cos. (LF, JP, RWM); *L. epixanthe* ssp., 14 July-4 Aug., Forest, Langlade*, Lincoln*, Iron, Vilas Cos. (LF, JP); *L. xanthoides dione*, 14 July, Eau Claire Co. (WD); *L. argyrognomon nabokovi*, 14-15 July, Florence, Marinette Cos. (LF, JP); *L. melissa samuelis*, 1-14 June, 28 July-11 Aug., Eau Claire, Juneau, Monroe Cos. (LF, TK, WD); *P. saepiolus*, 23 June, Bayfield Co. (LF, JP); *L. bachmanii*, 4 Aug., Eau Claire* Co. (WD); *A. celtis*, *clyton*, 9 July, Dane Co. (abundant in bait traps-LF); *P. coenia*, 25 Aug., Eau Claire*, Washington Cos. (WD, KL); *P. satyrus neomarsyas*, 14 July-Sept., Florence, Marinette, Oneida* Cos. (LF, JP); *C. gorgone carlota*, 19-29 May, 24 Aug.-1 Sept., Adams, Grant, Green, Juneau Cos. (GB, LF, RK, TK, JP); *B. freija* ssp., 25 May-6 June, Oneida Co. (GB, LF, JP, RW); *B. frigga* ssp., 9-17 June, Vilas Co. (LF); *B. eunomia dawsoni*, 17 June, Langlade Co. (LF); *S. idalia*, 26 Aug.-8 Sept., Green Co.

(GB, LF, RK); E. claudia, 13 June-11 Aug., Juneau, Sawyer, Waushara Cos. (WD, FK, Rwm); L. appalachia leeuwi, 9 July, Dane Co. (abundant in bait traps-LF); 22 July-21 Aug., Washington Co. (KL); C. tullia inornata, 23 June, Bayfield Co. (LF, JP); O. chryxus strigulosa, 19-28 May, Douglas, Florence*, Langlade, Marinette Cos. (GB, LF, JP); O. jutta ascerta, 6-13 June, Juneau, Oneida, Vilas Cos. (LF, TK, RW); E. discoidalis, 26 May-6 June, Langlade, Oneida Cos. (LF, JP, RW).

CHOICE MOTHS: S. canadensis, 17 Aug., Marathon Co. (at UV-LF); C. juglandis, 8-15 June, Juneau, Oneida Cos. (LF, TK); H. gracilis, 28-29 May, Adams*, Juneau Cos. (LF, TK); S. abbotti, 9 July, Dane Co. (worn in bait trap-LF); X. tersa, 13-20 Sept., Juneau Co. (immac. pr.-TK); H. columbia, 15 June, Oneida Co. (UV and attracted to f. cecropia-LF); S. prima, 26 May, Oneida Co. (at UV-LF); A. celia, 29 May, Monroe Co. (LF); A. caja americana, 4 Aug., Oneida Co. (LF); A. radcliffei, funeralis, 16 May, Dane Co. (LF); A. cordigera, 28 May-9 June, Langlade, Oneida Cos. (LF); E. grandis, electilis, 22 Apr.-10 May, Dane Co. (LF); X. cinerita, 20 Oct., Oneida Co. (LF); L. semiusta, 5 May, Dane Co. (LF); L. thaxteri, 25 May, 19 Oct., Oneida Co. (LF); P. appassinata, 2-16 Sept., Oneida Co. (UV in bog-LF); D. lucens, 9 July, Grant Co. (on A. canescens flowers-IL); S. microgamma, 17 June, Vilas Co. (LF); S. alias, cryptica, 15 July-21 Aug., Oneida Co. (on fireweed flowers-LF); A. mappa, bimaculata, ampia, 21-27 July, Oneida Co. (on fireweed flowers-LF); E. thyatroides, 17 Aug., Marathon Co. (UV in bog-LF); C. piatrix, 12 Sept., Dane Co. (bait trap-LF); C. cerogama f. bunkerii, 17 Aug., Sheboygan Co. (GH); C. semirelicta, 6 Aug.-1 Sept., Florence*, Marinette* Cos. (LF, JP); C. clintoni, 23-28 July, Sheboygan Co. (GH); C. micronympha, 23 Aug., Dane Co. (JP); C. spadix, 5 May, Dane Co. (bait-LF); P. basitriens, 20 July, Oneida Co. (LF); S. quadriguttatus, 28 July, Oneida Co. (2 at UV-LF); E. giganteana, 9 July, Grant Co. (IL). STATE RECORDS: N. lherminier, 26 Aug., Green Co. (1 ♀-GB); P. agarithe, 5 Aug., Eau Claire Co. (1-FK); E. amyntula, 27 May, Burnett Co. (GB, LF); A. californica, 31 Aug., Oneida Co. (1, det. by Eichlin-LF); S. thule, 1-2 June, Sheboygan Co. (2 ♀♀ at MV-GH).

MICHIGAN: A record cold winter for the 3rd successive year, with heavy snowfalls, delayed the spring season by at least a week in most areas. This delay carried through the entire season, which upset collecting trips for many. Summer was unusually hot and dry, with Sept. setting a new drought record in the Lansing area with NO precipitation! Yet, the season was very productive for most species; seven collectors recorded a total of 108 butterfly species, 20 Sphingidae, 35 Catocala species. A. celtis & clyton were noticeably abundant in southern counties; Webster found approx. 50 clyton larvae defoliating a small hackberry in Barry Co. C. cardui appeared in good numbers throughout the state, and B. philenor continued strong in southern localities. Nielsen continued to have good success using bait traps throughout the state, taking large numbers of Nymphalidae, Satyridae & Catocala sp. (41 'cats' in one trap for a new high!).

CHOICE BUTTERFLIES: E. dukesi, 27 July, Lenawee Co. (MN, RW); E. bimacula, 20 July, Otsego Co. (MN); P. viator, 18 July, St. Joseph* Co. (RW); H. metea, 18-20 May, Crawford, Oceana Cos. (MN, DO, RW); H. ottoe, 30 June-12 July, Allegan, Barry Cos. (IL, MN, DO); O. poweshiek, 10-14 July, Jackson, Livingston Cos. (WM, RW); C. palaemon mesapano, 5-16 June, Chippewa, Mackinac, Schoolcraft Cos. (RW); P. centaureae wyandot, 20 May, Otsego Co. (MN, RW); E. martialis, 10 June, Barry Co. (RW); P. protodice, 23 June, Ontonago* Co. (MG); P. virginianensis, 17 May-17 June, Iron, Mackinac, Marquette, Oceana Cos. (MG, MN, DO, RW); P. napi oleracea, 10 May-30 Aug., Jackson, Otsego Co. (JB, MG, MN); E. olympia, 18-20 May, Osceola*, Otsego Co. (JB, MN); C. irus, 6 May-3 June, Allegan, Montcalm, Newaygo, Oceana Cos. (MN, DO, RW); C. henrici, 13-20 May, Montcalm, Oceana, Roscommon*, Schoolcraft Cos. (DO, RW); C. polios, 17-26 May, Delta, Gogebic*, Iron Cos. (MN, RW); C. eryphon, 18 May, Gogebic* Co. (RW); S. liparops strigos X aliparops, 5 May, Lake* Co. (det. by dos Passos-MG); L. melissa samuelis, 3 June, Montcalm Co. (MN); L. bachmanii, 24 June, Kalamazoo* Co. (RW); N. vau-album, 2 July, Cass* Co. (SW. ext.-RW); P. satyrus neomarsyas, 25 May, Iron* Co. (RW); C. harrisii, 12 June-3 July, Jackson Co. (JB, MG); P. batesii, 7 Aug., Otsego Co. (MN); B. freija ssp., 25 May-5 June, Iron Co. (MN, RW); B. frigga ssp., 5-16 June, Iron, Keweenaw, Schoolcraft Cos. (JP, RW); B. eunomia dawsoni, 16 June, Chippewa, Mackinac Cos. (MN, RW); S. idalia, 28 June-18 July, Berrien, St. Joseph Cos. (DO, RW); E. claudia, 23 June, Ontonago Co. (MG); L. appalachia leeuwi, 26 June-5 Aug., Jackson, Lake, Lenawee, Montcalm, Washtenaw Cos. (MG); E. mitchellii, 3-16 July, Cass, Jackson, St. Joseph Cos. (MG, RW); C. tullia inornata, 26 June, Cheboygan Co. (MG); O. chryxus strigulosa, 20 May-5 June, Crawford, Iron, Lake, Otsego Cos. (MG, MN, RW); O. jutta ascerta, 5-25 June, Iron, Keweenaw, Mackinac, Marquette, Schoolcraft Cos. (MG, MN, JP, RW).

CHOICE MOTHS: S. canadensis, 19-21 July, Otsego Co. (MN); S. gordius, 13 July, St. Joseph Co. (MN); S. poecila, 14 June-21 July, Otsego Co. (MN); D. versicolor, 24-26 July, Jackson Co. (JB); H. columbia, Montcalm Co. (ex-cocoon-RW); A. caja americana, 5-8 Aug., Otsego Co. (MN, RW); E. scribonia, 11 July, Allegan* Co. (IL); A. infecta, 25 Aug., Lenawee Co. (2nd STATE record-MN); F. jecosa, 18 May, Gogebic* Co. (MN); X. thoracica, L. thaxteri, 26 May, Baraga* Co. (MN); P. speciosissima, 19 Oct., Clinton Co. (MN); E. nexilis, 20 May, Otsego Co. (RW); C. subnata, 29 July-25 Aug., Ingham*, Lenawee Cos. (MN); C. nebulosa, 31 Aug., Lenawee Co. (MN); C. meskei, 29 July-25 Aug., Lenawee Co. (MN); C. cara, 21 Oct., Clinton Co. (late record MN); C. semirelicta, 4 Aug., Otsego Co. (MN); C. coelebs, 4-9 Aug., Otsego Co. (MN); E. substriataria, 18 May, Gogebic* Co. (MN); N. basitriens, 9 July, Allegan* Co. (IL); S. argenteomaculatus, 13 June, Clinton* Co. (RW); S. quadriguttatus, 20-21 July, Otsego* Co. (MN). FOODPLANT RECORDS (MN): C. muticum, 23 June, Shiawassee Co., nearly full grown larvae on Cirsium muticum; S. edwardsii, 3 June, Montcalm Co., many instar larvae on Quercus velutina, tended by ants; G. lygdamus couperi, 3 June, Montcalm Co., larvae, 3 instars, on Lathyrus venosus, tended by ants; P. cerrusata, 29 July, Lenawee Co., larvae boring in roots of Vernonia noveboracensis; P. limpida, 14 July, Berrien* Co., larva boring in root of Eupatorium sp.; P. beeriana, 21-22 July, Otsego Co. larvae boring in roots of Liatris aspera; H. maia, 24 June, Kalamazoo* Co., larvae stripping foliage of Salix longifolia. STATE RECORDS: L. argyrognomon nabokovi, 15 July, Dickinson Co. (worn ♀♀ on dogbane flowers nr. Ford Airport-JP); Omphalocera dentosa, 14 July, St. Joseph Co. (1 at UV-MN).

ZONE 6: SOUTH: ARKANSAS, LOUISIANA, TENNESSEE, MISSISSIPPI, ALABAMA, FLORIDA, GEORGIA, N. & S. CAROLINA, VIRGINIA.

Coordinator: H.D. Baggett (DB). Contributors: Lee Adair (LA); Fred Bauer (FB); Richard Boscoe (RB); Vernon Brou (VB), Charles Bryson (CB); John Coffman (JC), Terry Dickel (TD); Linwood Dow (LD); Frank Fee (FF); Irving Finkelstein (IF); Hermann Flaschka (HF); Mecky Furr (MF); Robert Godefroi (RG); Bill Grooms (BG); Roger Heitzman (RH); John Hyatt (JH); Charles Kimball (CK); Leroy Koehn (LK); Bryant Mather (BM); James Maudsley (JM); Thomas Neal (TN); Paul Opler (PO); Jeff Sloten (JS); Richard Smith (RS); Edmund Taylor (ET); Charles Watson (CW); John Watts (JW); Dave Winter (DW); C.F. Zeiger (CZ). New STATE or COUNTY records in caps; range extensions (NORTH, SOUTH, etc.) in caps. Thanks are expressed to all participants, in spite of some harsh culling of information provided.

ARKANSAS: No report.

LOUISIANA: VB reported the following as new STATE records: SPHINGIDAE: Sphinx kalmiae; NOCTUIDAE: Catocala neogama, Catocala nebulosa, Catocala messalina, & Catocala texarkana.

TENNESSEE: BUTTERFLIES: PAPILIONIDAE: P. cresphontes, 5 July, Hancock Co. (CW); NYMPHALIDAE: Anaea andria, reared ex larvae on Croton capitatum, Memphis, Shelby Co. (MF); A. celtis, swarming 13 June, Shelby Forest St. Pk. (MF); E. phaeton, 2 June, Hawkins Co. (JH); S. aphrodite, 23 June, Roan Mt., Carter Co. (JH); S. diana, 23 July-4 Aug., Washington Co. (CW); & 8 Sept., Hawkins COUNTY (JH). SATYRIDAE: Lethe creola, 4 June, Hawkins Co. (CW); Cyllopsis gemma, 13 June, Shelby Forest St. Pk. (MF); PIERIDAE: Colias cesonia f. rosa, Sept.-Oct., Shelby Co. (MF); Pieris protodice, 14 Oct., Shelby Co. (MF); Euchloe olympia, 20 Apr., Bluff City, Sullivan Co. (CW); Eurema nicippe, 5 Aug., Hnacock Co. (CW); Nathalis iole, Sept.-Oct., Shelby Co. (MF); LYCAENIDAE: Celastrina ebenina, (STATE), 20-29 Apr., Bluff City, Sullivan COUNTY (CW); Calycopis cecrops, 29 July, Johnson City, Washington Co. (JH); Fenisea tarquinus, 4 Apr., Memphis, Shelby Cos. (MF); & 8 July, Hawkins Co. (JH); HESPERIIDAE: Amblyscirtes hegon, 30 Apr., Sullivan Co. (CW); Poanes hobomok, 29 May, Sullivan Co. (CW); Achalarus lyciades, 11 June, Sullivan Co. (CW). MOTHS: CITHERONIIDAE: C. regalis, 23 May (EARLY), Shelby Forest St. Pk. (MF); E. imperialis, 13-16 July, Shelby Forest St. Pk.; SPHINGIDAE: Doiba hylaeus, 13-16 July, S. geminatus, 23 May-23 June, S. chersis, 23 May-23 June, & M. jasminearum, 23 May-

23 June, all Shelby Forest St. Pk. (MF); NOCTUIDAE: Catocala nebulosa & C. angusi, 13-16 July, Shelby Forest St. Pk. (MF); Sthenopsis auratus, 9 May, Reliance, Polk Co. (CB).

MISSISSIPPI: BUTTERFLIES: HESPERIIDAE: GB reported that both Euphyes dukesi & Euphyes dion alabamae utilize Carex hyalinolepsis as the host plant in MS.

MOTHS: SATURNIIDAE: Callosamia securifera, Tupelo, Lee COUNTY (CB). This is considerably north of the known range. BM reported the following as new MS STATE records: Mooralia tinctoides; Zale unilineata; Horama panthelon texana; Sphacelodes vulneraria; and a species of Afrida, probably ydattodes.

ALABAMA: BUTTERFLIES: PAPILIONIDAE: Eurytides marcellus, 8 Apr., Tuscaloosa, Tuscaloosa Co. and abundant 9 Apr., Talladega Ntl. Forest, Bibb Co.; NYMPHALIDAE: Anaea andria, very common, Talladega Ntl. Forest, Bibb Co. on 9 Apr., PIERIDAE: Anthocharis midae, 8 Apr., Tuscaloosa; SATYRIDAE: Cylopsis gemma, 8 Apr., Tuscaloosa. All from JH.

FLORIDA: BUTTERFLIES: PAPILIONIDAE: There were no reports received in 1979 for Papilio aristodemus ponceanus on Key Largo. Collectors are again advised to use discretion with this species. A significant portion of the remaining tropical forest habitat on Key Largo has been slated for extensive development; the U.S. Dept. of the Interior is considering some 6700 acres of north Key Largo as a National Wildlife Refuge, but the cost is very prohibitive. You might wish to voice your support for this by writing to the Fish & Wildlife Service, U.S. Dept. of the Interior, Washington, D.C. 20240. DANAIDAE: Danaus eresimus tethys has been confirmed as far north as Clewiston, Hendry Co., and was reported as common by several contributors in extreme southern counties. NYMPHALIDAE: Siproeta stelenes biplagiata was observed ovipositing on Blechnum brownei, December, Homestead, Dade Co. (DB, RB, TD); reported as common but worn, 28 Nov., Homestead (MF). Phyciodes frisia, very common, 26-29 Dec., N. Key Largo, Monroe Co. (DB, RB, CZ); PIERIDAE: Phoebis statira floridensis, 3 specimens, 9 Sept., Terra Ceica, Manatee Co. (JS, TN); Phoebis agarithe maxima, reared on Pithecellobium guadalupensis (RB); Eurema daira palmira, 24-27 Nov., Key Largo, Monroe Co. (MF); Anteos maerula, a worn specimen, 5 Apr., Big Pine Key, Monroe Co. (BG). LYCAENIDAE: Callophrys h. henrici, in assoc. with Cercis canadensis (STATE), 17 March, Liberty COUNTY (RG); Callophrys n. niphon, common, in assoc. with Pinus clausa, Lake Delancey, Putnam COUNTY (CZ), 17 March; Chlorostrymon maesites, one specimen, 27 Dec., Key Largo, Monroe Co. (CZ), the first specimen from Key Largo confirmed since 1974; Electrostrymon angelia, reported as common in Broward, Dade, & Monroe Cos., apparently all year, reared on Schinus terebinthifolius (1st host plant record) (RB); Strymon columella modesta, reared from ova obtained from Big Pine Key, Dec., on Abutilon permolle (RB); Strymon martialis, reared on Trema micrantha, ova also obtained on Suriana maritima (RB, FF); Strymon acis bartrami, reared from ova obtained on Big Pine Key, March & Dec., on Croton linearis (RB, FF); Callophrys henrici margaretae, reared on Ilex cassine from the TL colony nr. Deland, Volusia Co., March (RB, FF), ova also obtained on Vaccinium sp., March, Jacksonville, Duval Co. (JW); Satyrium l. liparops, 3 May, Putnam COUNTY (RG); 15 May, Gainesville, Alachua COUNTY (JS). HESPERIIDAE: Euphyes dukesi, 29 May (JS) & 6 June (JW) early records for FLA., Jacksonville, Duval Co., 23 Sept., Shell Bluff Landing, Crescent Lake, Flagler COUNTY (JS); 30 Sept. & 2 Oct., Winter Spgs., Seminole COUNTY (SOUTH) (LD); Poanes zabulon, Winter Spgs., Seminole COUNTY (SOUTH) (LD); Autochton cellus, Ichetucknee Spgs., Columbia COUNTY, 21 Apr. (JW); Atrytone arogos, 26 May, Sampson, St. Johns COUNTY (JS); Megathymus cofaguai, 27 May, Cocoa Beach, Brevard Co. (RS); Phocides pigmalion okeechobee, 29 May, Merritt Island, Brevard Co. (RS); Erynnis funeralis, rare in FLA., Nov., Stock Island, Monroe Co. (LA); Cymaenes tripuncta, 15 Dec., Key Largo (RS); SATYRIDAE: Cercyonis pegala abbotti, early July, common nr. Cedar Key, Levy Co. (JS, TN).

MOTHS: SPHINGIDAE: Pseudosphinx tetrio, 11 Nov., Gainesville, Alachua COUNTY (NORTH) (TN) & 24 Oct., Walt Disney World, Orange Co. (LD); Aellopos tantalus, nectaring at Flamevine, 11-16 March, Sanibel Island, Lee Co. (DW) and common over flowers of Ernodea littoralis, Nov., Big Pine Key, Monroe Co. (LA, JS); Hemaris gracilis, 28 Apr., Sampson, St. Johns COUNTY (3rd FLA. record) (DB); NOCTUIDAE: Catocala lincolnana, 1 May, Gainesville, Alachua COUNTY (JS); Erebus odora, March, Sanibel Island (DW) & Nov., Key Largo (MF); Cerema cora, 24 March, Manatee Spgs., Levy COUNTY (RH) (SOUTH) & 30 March, Liberty COUNTY (TD); new STATE records include Eutolyte grandis, Chorizagrotis auxiliaris agrestis & Psaphida grotei (CK); Euthyatira pudens, 30 March, Liberty COUNTY (TD); PERICOPIIDAE: Composita fidelissima vagrans, 24 Nov., Key Largo (MF) & 15 Dec., Key Largo (RS).

GEORGIA: BUTTERFLIES: PAPILIONIDAE: P. palamedes, 15 Apr., Athens, Clarke COUNTY (JM); NYMPHALIDAE: Anaea andria, 15 Apr., Kennesaw, Cobb COUNTY (IF) & Red Top Mt., Bartow COUNTY (IF, record of R. Suydam); Phyciodes texana seminole, Aug., Savannah, Chatham Co. (IF); LYCAENIDAE: Erora laeta, 1 July, Duncan Ridge Rd., Cooper Creek St. Rec. Area, Fannin-Union Co. line (IF); Feniseca tarquinius, June, Fernbank Science Center, Atlanta, Fulton Co. (RG); Callophrys hesseli (STATE) 7 Apr., Hwy. 127 & Whitewater Creek, Taylor Co. (IF, assisted by A. Towers); HESPERIIDAE: Poanes viator & Euphyes dukesi (STATE), 19 May, Brunswick, Camden Co. (LK); Hesperia meskei, Hartley Bridge Rd., Bibb-Crawford County line (IF, HF).

MOTHS: SPHINGIDAE: Lapara bombycoides, common, 9 July, Vogel St. Pk., Union Co. (DB); NOCTUIDAE: Catocala flebilis & C. gracilis, same data as preceding; many of the following will represent new STATE records or southward extensions: Catocala nebulosa, 3 July, Buford, Gwinnett Co. (HF); C. cerogama, C. obscura, C. residua, C. insolabilis, C. serena, C. ulalume, & C. illecta; all Buford, late July-early Aug. (HF); C. paleogama, abundant on storefronts, 22 August, Athens, Clarke Co. (JM); Erebus odora, one specimen, same data as preceding. PYRALIDAE: Anania funebris glomerata, STATE & SOUTH, 9 July, Vogel St. Pk. (DB).

SOUTH CAROLINA: BUTTERFLIES: SATYRIDAE: Cylopsis gemma, 26-27 May, Mt. Pleasant, Charleston Co. (ET); LYCAENIDAE: Satyrium liparops, S. kingi, Fixenia (Euristrymon) favonius, & S. calanus, same data as preceding; Parrhasius m-album & F. favonius, 19 May, Mt. Pleasant (LK). HESPERIIDAE: Problema bulenta, Savannah River Wildlife Refuge Area, Jasper Co., 19 May (LK).

NORTH CAROLINA: BUTTERFLIES: CW reported the following: PAPILIONIDAE: P. palamedes & P. cresphontes, 17-25 Aug. vcnv. Shallote & Southport, Brunswick Co.; P. palamedes, 25 Aug., Bolton, Columbus Co.; NYMPHALIDAE: BoToria bellona, common, S. diana (1 ♂), Chlosyne nycteis (melanic aberrant), all 17 July, Mitchell Co.; HESPERIIDAE: W. egeremet, 17 July; Oligoria maculata, Panoquina panoquin, Problema byssus, Hesperia attalus, 17-25 Aug., Brunswick Co.; Euphyes vestris metacomet, Lerema accius (common), 25 Aug., Bolton, Columbus Co. (CW).

VIRGINIA: BUTTERFLIES: PAPILIONIDAE: P. cresphontes, 12 May, south fork of Shenandoah Riv., 5 mi. S. of Luray, Page Co. (PO); P. palamedes, 29 July, Poverty Hollow, Montgomery Co. (FB); Eurytides marcellus, 14 July, Pov. Hollow, Mont. Co. (FB); NYMPHALIDAE: Polygonia progne, 12 July, Pov. Hollow (FB); BoToria bellona, 21 Apr., Chancellorsville Battlefield Pk., Spotsylvania Co. (PO); Speyeria diana, 8-14 July, Hilton, Scott Co. (CW); 30 July, 10 mi. N. of Clifton Forge, Bath Co. (PO); 8 July, ♂ common, Pov. Hollow (FB); PIERIDAE: Pieris virginianensis, 6 May, Rockingham Co. (JC); & 12 May, S. fork Shenandoah Riv., Luray, Page Co. (PO); SATYRIDAE: Lethe appalachia, 30 July, Clifton Forge, Bath Co. (PO); Cercyonis pegala alope, 30 July, Pov. Hollow (FB); RIODINIIDAE: Calpephelis borealis, 29 July, 7 mi. NE. of Williamsville, Highland Co. & 20 July, Clifton Forge, Bath Co. (PO); LIBYTHEIDAE: Libytheana bachmanii, 14 July, Pov. Hollow, Mont. Co. (FB); LYCAENIDAE: C. h. henrici, 14 Apr., Quantico Marine Base, Stafford Co. & 21 Apr., Chancellorsville Batt. Pk., Spotsylvania Co. (PO); Feniseca Tarquinius, 14 July, 4-26 Aug., Dogue Creek, Fairfax Co. (PO); HESPERIIDAE: Staphylus hayhurstii, 2 June, north fork of Holston Riv., Scott Co. (CW); Erynnis brizo, 21 Apr., Chancel. Batt. Pk., Spotsylvania Co. & 12 May, Massanutten Mt., Page Co. (PO); Autochton cellus, 8-14 July, Hilton, Scott Co. (CW); Hesperia leonardus, 16 Sept., Dogue Cr., Fairfax Co. (PO); Atrytone delaware, 30 July, Clifton Forge, Bath Co. (PO).

MOTHS: CITHERONIIDAE: C. regalis & E. imperialis, common 14 July & 4 Aug., Giles Co. (FB); SPHINGIDAE: Eumorphia pandorus & E. achemon, 30 July, Pembroke, Giles Co. (FB); Hemaris thysbe, very common, 30 July, North Hollow, Montgomery Co. (FB); Sphinx franckii (3), 7 July & 13 July, Rockingham Co. (JC); Sphinx kaImiae, 13 July & 27 July, Rockingham Co. (JC); Sphinx pinastri, July (1), Rockingham Co. (JC, record of H. Womack); NOCTUIDAE: (all records of JC): Catocala nebulosa, 29 July & 5 Aug.,

Rockingham Co.; Eutelia pulcherrima, 10 between 2-22 June, Rockingham Co.; Rhodophora gaurae, 19 Aug., Rockingham Co.; Psychomorpha epimenis, 21 Apr., Rockingham Co.; GEOMETRIDAE: Lytrosis unitaria, 20-22 June, Timberville, Rockingham Co.; LACOSOMIDAE: Cicinnus melsheimeri, 15 June, Rockingham Co.; ENNOMINAE: Selenia kentaria, 21 Apr., Rockingham Co.

ZONE 7: NORTHEAST: QUEBEC (to 50th parallel), MARITIMES, NEW ENGLAND, NEW YORK, NEW JERSEY, PENNSYLVANIA, DELAWARE & MARYLAND. Coordinator: Dave Winter (DW). Contributors: E.A. Brower (AEB), Charles Burkhart (CB), Dave Baggett (DB), Fred Bower (FB); Jo Brewer (JB), Robert Busby (RB), William Boscoe (WB), George Ehle (GE), Frank Fee (FF), John Fales (JF), Tom Franks (TF), John Glaser (JG), L.P. Grey (LPG), R.E. Gray (RG), William Grooms (WG), Philip Kean (PK), R.A. Layberry (RL), Charles Kimball (CK), Gerald McWilliams (GM), Robert May (RM), Edward Prescott (EP), John Prescott (JP), Dale Schweitzer & associates (DS), David M. Wright (DMW), Thomas Williams (TW). (nv) = needs verification; (dng) = dates not given.

NEWFOUNDLAND (all LPG, 18-25 July): In mixed woodlands in Barachois Prov. Pk. many S. atlantis & L. arthemis, latter with increased red spotting in the band area compared with mainland series. In barrens areas S. of Channel Port-aux-Basques, C. tullia macisaaci in the muskeg areas, but forms nr. inornata in the grassy areas away from the tundra; scattered L. argyrognomon aster assoc/w crowberry carpets; local pockets of L. epixanthe phaedra. Many fresh Colias west of Stephenville were probably interior, while worn Colias in various areas were felt to be pelidne.

QUEBEC (all RL): Locations referenced as follows: in Gatineau Co., Andy Lake (al), Gatineau Pk. (gp), Hall Twp. (ht), Lac Bernard (lb), Lac St. Charles (lsc), Luskville Falls (lf), Makon Lake (ml), Wakefield Twp. (wft); in Hull Co., Lac Mcgregor (lmg); in Papineau Co., Buckingham (bk), Gull Lake (gl), St.-Sixte (ss), Thurso (ts); in Pontiac Co., Quyon (qy). D. plexippus abundant 19 June (ss) & 26 June (qy). O. chryxus, a few fresh, 1 June (lf); C. inornata, common 7-26 June (gp,lb,bk); L. anthedon, infrequent, 26 June, 7 July (gp) & 28 July (ht). C. nycteis, few fresh 26 June (lf); C. harrisii, many 19 June (ts); E. phaeton, many larvae on turtlehead, 28 July (lmg) reared to hibernation; P. satyrus, 8 May (db,ml), first collection by RL; P. progne, 8 May (al), & 26 June (qy); N. milberti, 8 May (lb), numerous 19 June (ss), few 26 June (qy), & 28 July (wft); N. vau-album, few 8 May (lb,ml). S. liparops, 28 July (ht); S. c. falacer, S. boreale, & S. caryaevorus, few each 3 July (gp); 17 larvae on Juglans cinerea, 7 June yielded 3 S. caryaevorus; C. nippon, very abundant 8 May (al,ml,gp), several hundred specimens examined without finding any C. eryphon; E. laeta, 11 & 18 May (gp); L. lygdamus, abundant 1-7 June (gp), larvae found on Melilotus alba & Vicia Cracca (see also PA). E. olympia, 1 June (lf), & 8 ova & 3 first instar larvae on Arabis glabra. A. hegon & A. vialis, few of each 1 June (lf), the latter a first for RL; E. bimacula, 26 June (qy) is first record for Ottawa region; H. sassacus, few 19 & 26 June (ts,gp); W. egeremet, 7 July (gp); P. mystic, 19 & 26 June (ts,qy); E. juvenalis, 18 May-1 June (gp), 10 June (lsc), 19 June (bk); E. lucilius (ts) and 28 July (ht) second brood.

MAINE: In extensive forays throughout the state and season, on largely botanical missions, AEB noted the numbers of butterfly species and individuals to be relatively sparse, consistent with the situation he has recorded for several years. In contrast, in a limited area on Islesboro (Waldo Co.) 19 July JB & DW sighted 23 species (est. 400 individuals) of butterflies, incl. several N. vau-album, & 1 N. milberti (last seen there previously in 1953). C. argiolus form lucia was taken there 17 July. LPG found C. lanoraieensis the only elfin prevalent nr. Enfield, L. dorcas claytoni increasing in Springfield where its foodplant Potentilla fruticosa had formerly been flooded out by beaver, and L. couperi increasing and becoming widespread. He cites new Penobscot COUNTY records at Enfield: C. flavicornis, 10 May, A. spinigera, 10 June, Protolampra brunneicollis, 9 July, M. evicta f. vomerina, 25 Apr., M. confusa, 7 May, O. rubescens, 24 Apr., Brachylochia discinigrata, 18 Sept., Platipolia anceps, 1 Sept., & Pyreferra pettiti, 25 Apr. Caripeta divisata ab. nigraria was frequent on Islesboro late July (DW).

NEW HAMPSHIRE: DS reported on deterioration of Concord pine barren habitat of L. m. samuelis when second flight was observed 2 Aug.; uncontrolled burns, succession, and development threaten the area, and no adjacent colonies were located.

MOTHS: Taken there at UV light: Schinia lynx, numerous Anomogyna "grisatra" (the Lakehurst NJ species), Epizeuxis diminuenda, Glena cognataria (bait), Cosymbia packardia, Semiiothisa distribuaria (of Forbes), S. granitata (of Ferguson), and Eumacaria latiferrugata. RG reported as STATE record Lithophane patefacta, 21 Apr., Enfield, Grafton Co.; and COUNTY record, same site, L. disposita, Oct.; L. grotei was extremely common (Oct.) with one melanic taken. DW found pupa of S. fulvicollis at top of stalk of Eupatorium purpureum, Wentworth, 6 Aug. (no proof of foodplant).

VERMONT: DB confirms persistence of C. inornata, with 2 broods, in Windham Co. with a 22 Aug. observation (first recorded 27 June 77).

MASSACHUSETTS: RB found only two specimens of C. inornata in Groveland (Essex Co.) despite careful search (Correction: last year's STATE record catch was by Mrs. RB!). He found N. milberti, numerous 15 June in W. Newbury, and as first-time observations P. comma, 4 July in Groveland, & P. coenia, 1 July & 19 Aug. in Georgetown & Groveland. DW found P. comma common in Dedham (Norfolk Co.), spring and summer, and took first local vau-album, at bait 12 Sept. TF took 3 P. astylus early July in Hopkinton (Middlesex Co.) and D. hylaeus, June & July. 28 Aug. in Chatham (Barnstable Co.) he found a freshly emerged H. cecropia ♀; no ♂♂ were attracted. In Dedham DW took Phuphena u-album, 13-14 May, & in October a ♀ Psectraglaea carnosata which produced several hundred apparently viable ova (early stages unknown). Catocala did well, TF taking in Hopkinton Judith in July, dejecta July & Aug., badia, innubens, & obscura in Aug., and on Martha's Vineyard, "coastal plain" form ilia in Aug. Melanic L. unitaria again appeared in Hopkinton, June (TF). Using pheromones, CK took two STATE records, Barnstable (Barnstable Co.): Synanthedon rubrofascia, hitherto not known n. of Maryland; S. kathyae, known only from the six types from Nova Scotia, NY, and SC (dng).

CONNECTICUT (all reported by DS for himself and associates): 2 colonies of P. virginensis nr. N. Branford, 17 Apr.-6 May; S. caryaevorum & 2 albinic Chlosyne nycteis in July, same site. SATURNIIDAE: H. cecropia scarce to common near cities and large towns; numerous C. promethea cocoons seen in Lichtfield, Windham, and New Haven Cos.; A. luna abundant in n.e. CT, but no ♂♂ attracted in Hamden and Wallingford. S. cynthia apparently dwindling in New Haven; spread of H. lucina into Tolland & Windham Cos.; all H. maia habitat destroyed years ago; no 70's records for A. io, E. imperialis, C. regalis, or A. stigma. NOCTUIDAE: Lithophane laticinerea, Hamden 11 Dec. at sugar maple sap, L. querquera very numerous in N. Branford & West Rock, March, Apr. & Oct.; L. patefacta (STATE record in 1975) numerous in same sites, March, Apr., Oct., Nov.; Eupsilia cirripalea (STATE) rare at West Rock (Mar.) & Hamden (25 Nov.). Metaxaglaea viatica very common, extreme dates 20 Sept.-2 Jan.; larvae frequent on Pyrus Xpurpurea & Sorbus aucuparia (Exotics); L. signosa (late) at N. Branford, 28 May. Catocala were numerous: in Greenwich in Aug., subnata, muliercula, innubens, minuta (also Hamden), and conubialis forms "pulverulenta" and "broweri"; worn C. meskei ♂, Hamden, 30 Aug. Eggs or larvae of residua, paleogama, rectata, obscura, & habilis were taken from Carya ovata; grynea & ultrona from Prunus serotina, & grynea from Pyrus Xpurpurea. Melanic C. cerogama were taken at bait 14 & 22 Aug., N. Branford.

NEW YORK: L. appalachia were numerous but worn, 28 Aug. at Harriman St. Pk., Rockland Co. (CB); FB took ♀ C. inornata, 22 Aug. at Pitcairn, Lawrence Co., an N. milberti in eastern Jefferson Co., same date; he found several dark ♀ P. glaucus, 21 June, Allegany St. Pk., Cattaraugus Co. There at lights he also took numerous C. undulosa melanics 2 June, C. amyntor, 20 June, and numerous C. angulifera, 17 June. In his considerable list of usual moths from Lockport, Niagara Co., were also included L. solidaginis germana, 15 Sept., Catocala agrippina, 1 Sept. (nv), & Caripeta angustiorata, 9 June. In otherwise disappointing collecting in the Albany Co. Pine Bush, DS took Hyparx aurora ♀ on foliage, 9 June, Apantesis williamsi, 5 June, Schinia lynx & Zale obliqua (sensu Forbes) late July; Catocala similis abundant late July and reared ex ovis on Q. ilicifolia; no evidence still of C. pretiosa; Chaetoglaea serrata & Leucania adjecta at UV, 4 Oct.

NEW JERSEY: TW took *E. areolata* in Lebanon St. For., 6 June, and CB took it 1 July at the usual spot in Lakehurst, Ocean Co., where he also found worn *L. epixanthe* and fresh *P. protodice*. In Springdale, Sussex Co., *C. pegale nephele* was found, and *L. borealis* was again present in numbers 7 July (CB). *Calophrys* were numerous (exc. for few niphon): *augustinus*, *niphon*, & *polios* in Penn St. For., Burlington Co., 25 Apr. & 6 May, *irus* in Mizpah, Atlantic Co., 9 May, *henrici*, Salem Co., 11 May, & *gryneus* at Alloway, Salem Co., 18 July. DS took *C. henrici* & *Calycopis cecrops* on a lawn in Batsto, 7 May, and *C. hesseli* in normal habitat and flushed from a planted *Juniperus virginiana* in the village. RM saw *E. lisa* in Lincoln Park, Morris Co., 25 Aug. CB reported *P. massasoit*, 7 July in Springdale, N. Thermanier & A. lyciades, 9 June in Lakehurst. A worn ♀ *E. dion* was taken in Lebanon St. For., 1 Sept., suggesting an earlier than September flight period for the second brood (TW). He took *Holomelina aurantiaca* there and in Lakehurst, same date. RM took *C. parta* a bait in W. Caldwell, Essex Co., and reared *C. piatrix* ex larva on black walnut. At Batsto last and penultimate *C. ultronia* larvae were found 8 May on beach plum (new food record, DS), along with *Z. cingulifera* larvae; *C. similis* penult. on *Quercus marilandica*. He took many *Feralia major* at UV 31 March, hordes of *O. hibisci*; and on 1 Apr. many worn *O. garmani*, and early records for *Z. confusa*, *Galgula partita*, & *Anacamptodes defectoria*. Hibernators *E. sidus*, *L. antennata*, & *Jodia rufago* were still present 7 May. On 10 Nov. at UV he took *Metaxaglaea violacea*, Schweitzer, 1979, and *M. semitaria* (these rarely taken at light). 1970's Summary: All indigenous south Jersey Saturniidae seem to have fared well in the 1970's. *E. imperialis* declined northward earlier in the decade or before, but recovered at Batsto by its end. At least one new moth species joined the local fauna: *Heliothis lupata* appeared and became established, now frequent from Batsto to Eldora. *Catocala pretiosa*, first taken in the region in 1968 (no 19th century local records!), is now frequent from Atsion to Cape May (DS).

PENNSYLVANIA: DMW reported observations 20 May-5 Aug. at flowing white oak sap at Overbrook, Montgomery Co., tagging 131 *N. antiopa*, 92 *P. interrogationis*, 32 *V. atalanta*, 16 *P. comma*, 6 *A. clyton*, 20 *E. cymela*, & 37 *Amphion nesus*. GE noted a few *E. claudia* in Sept. in Lancaster (Lancaster Co.), and FF reported *P. coenia*, 17 Aug. at Leroy, Bradford Co. EP, reporting on 6 counties in NW. PA noted most butterfly species in normal numbers, but a shortage of *C. p. nephele*, increased numbers of *B. Bellona*, *L. archippus*, *L. hyllus*, & *P. glaucus*; *B. philenor* was not seen. A McKean COUNTY record for *P. faunus*, 21 Aug. was reported by JP; he notes abundant *B. bellona* throughout NW counties all season, vs. rare *B. selene*; *N. milberti* was common June & Aug. *P. comma* was very common in June-July at Flourtown, Montgomery Co., along with a few *L. bachmani*. DMW observed persistent nectaring 5 Aug. by *C. pseudargiolus* on white vervain (*Verbena urticifolia*), a species rarely seen nectaring. GE found *P. m-album* scarce, with a single worn ♀ in Sept., Lancaster Co.; *F. tarquinius* was likewise scarce. Larvae of *G. lygdamus* on *Vicia caroliniana* in Centre Co. were reared to pupae by FF (see also Quebec). TW took a last instar larva of *S. melinus* on chewed flower buds of *Asclepias tuberosa*, reared to maturity on mint. JP took *L. hyllus*, 21 Aug. in Erie & Crawford Cos., and GM noted *C. pseudargiolus* flying as late as 27 Sept. in Presque Isle St. Pk., Erie Co. *C. eurytheme* was on the wing 11 Dec. in Centre Co. (FF); *P. virginensis* was spreading in McKean, Warren, Elk, & Forest Cos. from 21 Apr. on (JP), and in Erie Co., 5 May-3 June (GM). *G. marcellus* was taken in Erie Co., 14 June (GM) and 9 July (JP) after an apparent absence of 21 years. GM also found *B. philenor*, 2 Aug. at Corry, Erie Co. DMW observed *E. clarus* ovipositing on 3 inappropriate ornamental shrubs (incl. yew!); larvae were unable to accept any of the choices. He also saw a *W. egeremet* which had been captured by *Phymata fasciata* while nectaring on *Apocynum cannabinum*. GE took 7 *Autochton cellus* nectaring at blackberry blooms on a wood road in Lancaster Co., 12-14 June, not previously seen in 40 yrs. collecting; he finds *T. lineola* now well established. FF cites *E. dion* at Arnot, Tioga Co., as the second record for the state, 17 July, and took *E. bimacula* at 1900' nr. Morris, Tioga Co., 20 June. *Polites origenes* was taken in Philadelphia, 7 Sept. (TW). *P. communis* was numerous (1st time in 13 yrs.) in Crawford & Erie Cos. (JP), and was seen as early as 22 May in Union City (GM), along with *A. hegon*. TW took *E. zarucco*, 20 Sept. in Tinicum Marshes, Delaware Co. WB submitted his usual moth list of comparisons with previous years, with records (dng) for *S. jasminearum*, *S. chersis*, & *S. kalmiae*, increases in *D. myron*, *S. abbottii*, & *D. inscriptum*, and decreases in *S. eremitus*, *C. juglandis*, & *H. lineata*. *Ecpanthera scribonia* reappeared. *Catocala* were poorly represented, but *residua* & *parta* were increased and *cerogama*, *subnata*, & *connubialis* "cordelia" were well represented. TW reported from Fairmount Park, Philadelphia: *Chaetoglaea sericea*, 24 Nov., *C. tremula*, 26 Nov., *Ipimorpha pleonectusa*, 19 Aug., *Mocis disseverans*, 9 June, *Brephos infans*, common 22 March, and *Metarrhantis obfirmaria* at light 10 May; at Glenside, Montgomery Co., 20 Aug., *Semiothisa minorata*.

MARYLAND: *A. vanillae*, 31 Aug. nr. Stockton, Worcester Co., was second STATE record (WG); *P. coenia* was numerous in wet form 12 Sept.-18 Nov. (JF) in Calvert Co. and 8 Sept. in Cecil Co. (PK). He also took/saw *S. idalia* in Harford Co., 23 June & 1 July. *C. nycteis* was numerous late Aug. in Hartford Co. (PK). FF reared *S. melinus* on *Desmodium* sp. from Allegany Co., captive ♀ ovipositing 27 June. JF cites COUNTY records for: *S. liparops*, 3 July, Montgomery Co.; *C. henrici*, 29 Apr., Calvert Co.; *A. halesus*, June, Queen Annes Co. & Aug., St. Marys Co.; May, at Seneca, Montgomery Co. PK added Anne Arundel COUNTY record for *F. tarquinius*, 14 Aug. JG took this species feeding on a dead snake 7 June; Pomfret, and also at Port Tobacco, 31 July, both Charles Co.; *G. lygdamus*, 1 May in Cumberland, Allegany Co.; and *P. m-album*, 13 July, Charles Co. PK cites Garrett COUNTY record for *C. henrici*, 17 May; from a ♀ *C. cecrops* taken 23 May, Anne Arundel Co., he reared 20 adults, on *Rhus copallina*. JF found *E. nicippe* in Montgomery Co.; JG took *E. olympia*, 2 May at Wolf Mill, Allegany Co.; PK took *A. midea*, 10 Apr., Anne Arundel Co., & *P. virginensis*, 6 & 17 May in Allegany & Garrett Cos., respectively; *E. lisa* was very common in Sept. in Cecil Co. (PK). *Papilio palamedes*, 6 Sept. made a Montgomery Co. record (JF), & *P. cressphontes* appeared there also; *B. philenor*, 29 July, Charles Co. (JG). Three further STATE records were *Problema bulenta*, 23 July, S. of Robbins, Dorchester Co. (JG); *P. vibex*, 29 Aug., St. Marys Co. (WG); & *O. maculata*, 23 Aug., Montgomery Co., & 31 Aug., Worcester Co. (WG). *E. dion* made a Caroline COUNTY record 7 Aug., and *P. massasoit* for Caroline COUNTY, 13 July (both JF); the subspecies *chermocki* was plentiful at the Dorchester Co. type locality, 21 June (PK). Spread of *T. lineola* into Carroll COUNTY was new (PK, 23 June). JG noted *H. sassacus* common 12 June nr. Ellerslie, Allegany Co.; PK found *P. centaureae* common in same county 6 May, and cited Garrett COUNTY records for *A. vialis* & *A. hegon*, 17 May; he took *A. hianna*, 20 May at Reston, Fairfax Co. JF took *Autochton cellus* in Montgomery Co. Of the 86 species recorded by Fales & Grooms, 33 were HESPERIIDAE.

URBAN COLLECTING: CB, reporting on Manhattan non-social butterflies (and moths) from 20 March thru 22 Oct., observed *D. plexippus*, *N. antiopa*, *P. comma*, *C. cardui*, *L. phlaeas americana*, *C. a. pseudargiolus* (this latter on 25 July, but he has never been able to find the spring brood in the city), *P. rapae*, *C. philodice*, *P. polyxenes*, *E. juvenalis*, *P. zabulon*, & *Alypia octomaculata* & *Samia cynthia*.

MIGRATORY SPECIES: As reported by contributors, these species were notable for their unimpressive numbers in 1979.

ZONE 8: THE FAR NORTH: ALASKA, NORTHERN CANADA, NORTHEAST SIBERIA. Coordinator: Kenelm W. Philip. Contributors: K. Bagdonas, D. L. Bauer* (DLB), D. W. Bouton* (DWB), U. Caspi*, R. R. Castilonia*, C. V. Covell, Jr. (CC), C. Della Bruna, D. F. Faulkner* (DF), R. Galaburri*, G. Gorelick* (GG), J. Hinchcliff*, R. W. Hodges, F. H. Karpoleon* (FK), H. P. Kimmich (HK), E. C. Knudson (EK), B. Landing, R. L. Langston, R. Leuschner* (RL), J. W. Merritt* (JM), J. W. Mori* (JWM), W. A. Neill*, P. Opler (PO), W. Patterson*, J. Powell, F. Preston (FP), J. Shepard (JS), J. Sorensen*, O. Sotavalta* (OS), R. E. Stanford, D. Tilden* (DT), J. W. Tilden, R. H. Vanderhoff*, H. Weems* (HW), W. D. Winter* (DW), R. J. Wuttken*, J. D. Zeligs* (JZ), K. Philip* and collectors for the Alaska Lepidoptera Survey. Contributors with asterisks were members of the Brooks Range field trip, referenced below as (BRT). All contributors except Kimmich and Knudson were participants in the Eagle Summit field trip. Previously unreported species or localities are emphasized; collecting is by ALS volunteers unless noted. Note regarding Alaska Lepidoptera Survey: Field trips in conjunction with the Fairbanks meeting of the Lepidopterists' Society were arranged to achieve intensive collecting at three distinct tundra sites: Eagle Summit; the Chandalar Shelf just south of Atigun Pass (central Brooks Range); and a site just north of Galbraith Lake on the North Slope. Most field trip participants supplied data for the ALS files, providing an excellent documentation of the fauna of three different

but related localities. About 30 ALS volunteers were active, ranging from Banks Island to NE Siberia. Input to date is about 2500 specimens (with 500 more expected).

NORTHWEST TERRITORIES: Sachs Harbour, 24 July-1 August: the usual species (see 1976 Annual Summary). Cape Parry, 23-24 July: additional species (see 1976 Annual Summary): Erebia fasciata. Dempster Highway, mile 305-320 (Richardson Mountains), 21 July (FP, JS): Pyrgus centaureae, Papilio machaon, Pieris occidentalis, P. napi, Colias boothii, Polygonia gracilis, Boloria frigga, B. polaris, Oeneis polixenes, Erebia rossii, E. disa, E. fasciata, E. discoidalis, E. youngi.

YUKON TERRITORY: Range extension: Platarctia lapponica hyperborea (HK) from Ogilvie River, Dempster Highway, 21 June—possible Y.T. record.

British Mountains, 69°26'N, 140°45'W, 8 June-18 July: Parnassius eversmanni, Papilio machaon, Pieris occidentalis, P. napi, Colias hecla, C. boothii?, C. palaeno, C. gigantea/pelidne, Euchloe creusa, Lycaeides argyrognomon, Vacciniina optilete, Boloria napaea, B. freija, B. chariclea, B. eunomia, Coenonympha kodiak, Oeneis bore, Erebia rossii, E. disa, E. fasciata, E. youngi.

Dempster Highway: 11 localities were collected by the Prestons and Shepard, of which the 3 major sites were: mile 254, Richardson Mountains, 20 June (r); Ogilvie River crossing, 17-23 June (o); kilometer 155, near the Blackstone River, 23-24 June (b): Hesperia mantitoba (o), Carterocephalus palaemon (o), Pyrgus centaureae (o), Papilio machaon (b,r), Pieris occidentalis (o,r), P. napi (b,o,r), Colias hecla (b,o,r), C. nastes (b,r), Euchloe creusa (b,o), Everes amyntula (o), Glaucopsyche lygdamus (o), Nymphalis antiopa (o), Polygonia gracilis (o), Phyciodes tharos (o), Boloria frigga (r), B. improba (r), B. polaris (b,o,r), B. freija (r), B. distincta (b,r), B. chariclea (o), B. eunomia (o), Oeneis chryxus (r), O. jutta (o), O. melissa? (b), Erebia disa (o), E. mackinleyensis (b), E. fasciata (b,r), E. discoidalis (o), E. youngi (r). Other localities produced 3 additional species: Erynnis persius & Papilio glaucus from km 15 & 23, 16 June; Erebia rossii from km 144-149, 16 June. Knudson added, from mile 25 & 52, 22 July: Colias philodice, C. palaeno, Lycaena dorcas, Lycaeides argyrognomon, Vacciniina optilete.

Klondike Loop (Yukon Highways 2 & 3): 5 localities as follows: Carmacks (c), 21 July (EK); 9 km N of Minto (m), 13 June (FP, JS); Pelly Crossing (p), 13 June (FP, JS); Stewart Crossing (s), 13 June (FP, JS); Dawson (d), 15 June (JS); Erynnis persius (m,p,s,d), Papilio machaon (d), P. glaucus (c,m,p,s,d), Colias hecla (p,s,d), C. philodice (c,s), C. christina (c), C. palaeno (d), Euchloe ausonides (p,s), Lycaeides argyrognomon (c), Plebejus saepiolus (p), Agriades aquilo (s), Everes amyntula (s), Glaucopsyche lygdamus (s,d), Celastrina argiolus (m,p), Limnitis arthemis (c), Cynthia cardui (c), Nymphalis antiopa (m,p,s), Polygonia gracilis (m,p,s), Phyciodes campestris (p), Boloria frigga (m,d), B. freija (m,s,d), B. eunomia (m), Oeneis chryxus (m,p,s), O. jutta (m,p,s), Erebia disa (m,p,s,d), E. discoidalis (m,p,s).

Campbell Highway, km 473, 521, 533 (130, 82, 70 km E of Carmacks), 12 June (FP, JS): Erynnis persius, Papilio glaucus, Colias hecla, Euchloe ausonides, Plebejus saepiolus, Everes amyntula, Glaucopsyche lygdamus, Celastrina argiolus, Phyciodes campestris, Boloria freija, Oeneis chryxus, O. jutta, Erebia disa, E. discoidalis.

Ataska Highway: Lake Creek campground/Koidern River (mile 1152), 27 June, 17 July (DLB): Polites draco, Hesperia mantitoba, Erynnis persius, Parnassius eversmanni, Pieris napi, Colias meadii??, C. philodice, C. christina, C. palaeno, Lycaena dorcas, Lycaeides argyrognomon, Plebejus saepiolus, Everes amyntula, Phyciodes campestris, Boloria titania, B. eunomia, Coenonympha kodiak, Oeneis jutta, Erebia disa, E. theano. Duke River (mile 1099), 26 June, 17 July (DLB): Polites draco, Erynnis persius, Pieris occidentalis, P. napi, Colias philodice, Euchloe creusa, E. ausonides, Everes comyntas?, Glaucopsyche lygdamus, Oeneis alberta, Erebia epirodea. South end Kluane Lake, 26 June (DLB): Pieris occidentalis, Euphydryas anicia helvia. Teslin, 25 June, (DLB): Carterocephalus palaemon, Pieris sisymbrii.

ALASKA: Weather: Interior Alaska again had a cool, rainy summer, and butterfly abundances (with some notable exceptions—see below) were low compared to most previous years. The North Slope (central) had a very early spring, but in the central Brooks Range the season had a late start, and in general the summer was cool and wet with poor collecting. New state record: Lycaena phlaeas ssp. from Alder Creek, Ester (DLB), Goldstream Road, Fairbanks (DW), and Fox (HW). This butterfly resembles arethusa, inhabits bogs in spruce forest, and flies during the first 3 weeks of July. Range extensions: Hyperborea czekanowskii, and Apantesis sp., from Torment Creek, Ray Mountains (N of Yukon River, Interior Alaska). H. czekanowskii is a Siberian species with a single previous North American record: Shishmaref (Seward Peninsula, Alaska), over 400 miles west of the Ray Mountains. The Apantesis may be the first ♂ of an undescribed species known from 2 other specimens: one from Wonder Lake, McKinley Park; and one from northern Canada. Notable captures: Euchloe creusa from several tundra sites. This species is well established throughout the Seward Peninsula and Brooks Range/North Slope (except the arctic coastal plain). Boloria distincta was found almost everywhere its habitat (blockfield and scree) was collected. This "rare" butterfly is actually abundant when you get to its habitat (though not necessarily easy to collect!) throughout northern and western Alaska (and the northern Y.T. as well). Stenoptilia mengeli (described from Greenland) was found on the Chandalar Shelf, Brooks Range (RL). Unusual abundances: Papilio glaucus and Nymphalis antiopa both reached the highest levels in Interior Alaska that I have seen during my 14 years in Fairbanks. N. antiopa larvae were seen in large numbers at the Yukon River and Coldfoot camp on the Haul Road (BRT). Larvae were also seen at Eagle River on the Dempster Highway, Y.T. (HK), and the population peak may have included the Yukon Territory. Oeneis bore was very abundant sitting on the sunwarmed rocks of the gravel pad beneath the oil pipeline at Galbraith Lake. Over 350 specimens were taken from about ½ mile of the pipeline in a few hours (BRT). Apparently an artificial habitat for this species was inadvertently created (and I bet nobody put that in the environmental impact statement!) Foodplants: Colias near boothii? on Murphy Dome ovipositing on Lupinus arcticus, 1 July (PO).

North Slope: Colville River delta, 1-25 July: Colias hecla, C. thula, C. palaeno, C. nastes, Boloria napaea, B. chariclea, Oeneis melissa, O. polixenes. Hills just N of Sagwon, 7-9 July (FP, JS): additional species (see 1970, 1972, 1974 Annual Summaries): Hesperia mantitoba, Pieris napi, Euchloe creusa. Approximately 2 miles N of Galbraith Lake, 9 July (BRT): Parnassius eversmanni, Papilio machaon, Pieris occidentalis, P. napi, Colias hecla, C. thula?, C. philodice, C. palaeno, C. nastes, Lycaeides argyrognomon, Vacciniina optilete (GG), Agriades aquilo, Boloria napaea, B. frigga, B. improba, B. polaris, B. freija, B. distincta (JZ), B. chariclea, B. eunomia (GG), Coenonympha kodiak (DW), Oeneis bore (abundant!), O. melissa, O. polixenes, Erebia rossii, E. disa, E. fasciata, E. theano, E. youngi, E. sp. (This last Erebia is what previous Summaries have listed as "E. dabanensis?". Comparison with dabanensis from NE Siberia has shown this determination to be incorrect.) Moths (RL, OS): Anarta richardsoni, Archanarta (apparently 3 species: quieta constricta, bryanti, acraea—but determination is tentative), Barrovia fasciata, Psychophora sabini, Polopeustis arctiella. The Galbraith Lake site runs from about 3100 to 3900 feet elevation; habitats range from sedge meadow and tussock tundra near the Haul Road to fellfield and scree on the ridgetop.

DeLong Mountains, western Brooks Range, near the Wulik River: SE slope Punupkahkroak Mountain, 30 June: Pieris napi, Euchloe creusa, Glaucopsyche lygdamus, Boloria polaris. Ikalukrok Creek, 30 June: Papilio machaon, Pieris napi, Colias nastes, Euchloe creusa, Lycaeides argyrognomon, Boloria frigga, Oeneis bore, Erebia disa, E. youngi.

Central Brooks Range (Haul Road): N ridge Atigun Gorge, 13-14 July (FP, JS): Parnassius eversmanni, Pieris occidentalis, P. napi, Colias hecla, C. philodice, C. palaeno, C. nastes, Lycaeides argyrognomon, Vacciniina optilete, Agriades aquilo, Boloria napaea, B. frigga, B. improba, B. freija, B. distincta, B. chariclea, B. eunomia, Coenonympha kodiak, Oeneis bore, O. melissa, O. polixenes, Erebia rossii, E. disa, E. mackinleyensis, E. fasciata, E. theano, E. youngi, E. sp. Atigun Pass, 4, 16 July (FP, JS): Parnassius eversmanni, Pieris occidentalis, Colias hecla, C. nastes, Lycaeides argyrognomon, Boloria napaea, B. improba, B. polaris, B. distincta, B. chariclea, Oeneis melissa, O. polixenes, Erebia rossii, E. disa, E. fasciata, E. youngi. Chandalar Shelf at S foot of Atigun Pass, 6-8 July (BRT): Hesperia mantitoba, Pyrgus centaureae, Papilio machaon (DF), Pieris occidentalis, P. napi, Colias hecla, C. thula?, C. philodice, C. palaeno, C. nastes, Lycaeides argyrognomon,

Plebejus saepiolus (FK), Vacciniina optilete (GG), Agriades aquilo, Everes amyntula, Boloria napaea, B. improba, B. polaris (DT), B. freija, B. distincta (JZ), B. chariclea, Oeneis bore, O. melissa, O. polixenes, Erebia rossii, E. disa, E. fasciata (JMM), E. youngi, E. sp. Moths (DWB, RL, OS): Acsala anomala (DWB), Symphistis zetterstedti?, Syngrapha hochenwarthi, Scopula septentrionica, Holarctias magnetaria, Stenoptilia mengeli. The three sites listed above are all alpine tundra, ranging from about 3000 to over 5000 feet elevation; and fellfield and scree form a major part of the landscape. Considering the total manhours of collecting involved (41 collectors), the results may be taken as fairly characteristic of the central Brooks Range butterfly fauna. These interesting sites (and the Galbraith Lake site on the North Slope) are all accessible via the Haul Road—except that the Haul Road is still closed to public access, and even some scientific research projects have difficulty obtaining access to the road. At the present time, permission from the State Highway Department is needed to take a vehicle on the Haul Road, and permission from BLM is required to camp by the roadside.

Seward Peninsula (all localities collected by Zeligs; where "additional species" appears, see the 1976 Annual Summary): mile 18 Nome-Teller Road, 14 July: additional species: Euchloe creusa. Mile 28 Nome-Teller Road, 14 July: additional species: Pieris napi, Boloria frigga. Mile 42 Nome-Teller Road, 14 July: additional species: Parnassius eversmanni, Colias hecla, Vacciniina optilete, Boloria polaris, B. freija, Coenonympha kodiak, Oeneis polixenes. Mile 41.3 Nome-Council Road, Penny Creek, 15 June: Pieris napi, Colias hecla, Euchloe creusa, Agriades aquilo, Glaucopsyche lygdamus, Boloria napaea, B. polaris, B. chariclea, B. eunomia, Coenonympha kodiak, Oeneis bore, O. melissa, Erebia rossii, E. disa, E. youngi, E. sp. Mile 48 & 49 Kougark Road, 16 July: additional species (see entry for mile 50): Papilio machaon, Pieris occidentalis, P. napi, Lycaeides argyrognomon, Vacciniina optilete, Boloria frigga, B. polaris, B. distincta, Oeneis bore, O. polixenes, Erebia rossii. The 28 mile Teller Road site is moist tundra meadow; the other sites are mainly dry fellfield (with scree in some cases).

Interior Alaska: Haul Road, 37.3 miles N of Yukon River, 3 July (FP, JS): Hesperia manitoba, Papilio machaon, Colias hecla, C. boothii, C. palaeno, Vacciniina optilete, Boloria napaea, B. improba, B. polaris, B. chariclea, Oeneis bore, O. jutta, O. melissa?, O. polixenes, Erebia youngi. Collecting at this site was mainly on low tundra hilltops west of the road.

Ray Mountains, between Torment Creek and Tozitna River, 23 June-15 August: Papilio machaon, Pieris occidentalis, Colias hecla, C. philodice, C. gigantea, C. palaeno, C. nastes?, Euchloe creusa, Lycaena dorcas, Lycaeides argyrognomon, Vacciniina optilete, Celastrina argiolus, Nymphalis antiopa, Polygonia gracilis, Boloria napaea, B. polaris, B. chariclea, B. eunomia, Coenonympha kodiak, Oeneis bore, O. jutta, Erebia disa, E. fasciata, E. discoidalis, E. youngi, Hyperborea czezanowskii, Apantesis quensellii, Apantesis sp. The Ray Mountains are an isolated (and previously totally uncollected) range, and they should receive further collecting—especially since poor weather prevented collecting at the higher elevations in 1979.

Walker Fork campground, mile 82 Taylor Highway, 26 June (FP, JS): Papilio machaon, P. glaucus, Pieris napi, Boloria polaris, B. freija, B. chariclea/titania, B. eunomia, Coenonympha kodiak, Oeneis jutta, Erebia theano. Chicken, mile 66 Taylor Highway, 26 June (FP, JS): Erynnis persius, Papilio glaucus, Pieris napi, Colias hecla, C. philodice, C. gigantea?, Lycaeides argyrognomon, Boloria frigga, Coenonympha kodiak, Erebia theano. Eagle Summit, 2 July (Lep. Soc. field trip) and 24 July (EK): despite the number of collectors (31 parties, 49 collectors, reporting) no additional tundra butterflies were found (see Annual Summaries 1966-1971).

Boloria polaris, B. distincta, and B. chariclea were all present, continuing their odd-year flight at this locality. Abundances of all species were down, probably because of the rainy summer. Some collecting was carried out essentially at or below treeline, but no new records were made for taiga species either except for the anomalous capture of one Phyciodes campestris (JZ) on the tundra (presumably blown uphill or straying, since this taiga species is not known to hilltop). Moths (CC, RL, OS): Epipsilamorphia aequaeva, Archanarta acraea, Syngrapha pavilis, Aspilates orciferaria, Holarctias sentinaria, Psychophora sabini, Platyptilia petrodactyla. Note: a complete list of Eagle Summit area butterflies (miles 94-113 Steese Highway), both tundra and taiga, covering collecting from 1962 through 1979, may be obtained from the coordinator. Fairbanks area: Pieris occidentalis appeared (in fresh condition) on the University of Alaska campus from 6-22 August, with the peak of the flight around the 15th. In conjunction with the late June/early July flight, and some May records from past years, the late summer flight in 1979 indicates this species may be at least partially bivoltine in Interior Alaska. The usual Fairbanks area odd-year butterflies were flying: Hesperia manitoba, Oeneis jutta, Erebia disa (in taiga); Boloria polaris (on Murphy Dome, tundra). Nenana, 28 June, 12 July (JZ, JM): Papilio glaucus, Pieris occidentalis, Colias gigantea, Lycaena dorcas, Plebejus saepiolus, Everes amyntula, Limenitis arthemis, Boloria titania, Coenonympha kodiak. Kuskokwim Mountains (vic. Ophir, Takotna, Beaver Mountains), 15 June-12 July: Papilio glaucus, Pieris napi, Colias palaeno, C. nastes, Nymphalis antiopa, Polygonia faunus, Boloria polaris, B. freija, B. chariclea, Oeneis jutta, O. polixenes.

Southcentral Alaska: mile 76, 88 Glenn Highway, 23 June (JZ): Colias philodice, C. palaeno, Vacciniina optilete, Everes amyntula, Polygonia gracilis, Phyciodes campestris, Oeneis bore, Erebia disa. Mile 13 Denali Highway, 30 June (JZ): additional species (see 1973, 1976 Annual Summaries): Pieris occidentalis, Boloria polaris, B. freija. Glennallen: additional species (see 1972-3, 1975 Annual Summaries): Lycaena phlaeas ssp. (may not be same as the Fairbanks area phlaeas), 16 July (DLB); Pieris occidentalis, 30 June. Hatcher Pass, 26 July (EK): additional species (see 1976 Annual Summary): Pieris napi, Nymphalis milberti. This promising site needs to be collected much earlier in the season. Crow Pass Trail (N of Girdwood), 27 June (EK): additional species (see 1976 Annual Summary): Colias philodice, C. palaeno, Nymphalis milberti, Speyeria momonia.

Kenai Peninsula: Aialik Bay (W of Seward), 18 July: Pieris napi, a probable sight record for Nymphalis milberti. The glacial inlets on the Gulf of Alaska appear to support a rather depauperate butterfly fauna.

Southwest Alaska: Newtok (Baird Inlet, Kuskokwim/Yukon delta), 8 June-18 July: Pieris napi, Colias palaeno, Boloria polaris, B. chariclea, Coenonympha kodiak. King Salmon, 29 June-20 July: Pieris napi, Colias palaeno, Coenonympha kodiak, Oeneis jutta.

MAGADANSKAYA OBLAST': Chaun Station, 27 June-23 July: the usual species, with no additional records (see 1978 Annual Summary).

ZONE 9: NORTHERN NEOTROPICS. Contributors: Richard Bailowitz, Eduardo Cecilio Welling M. (as coordinator). Weather Summary: It appears as if the drought conditions noted personally in the Yucatan peninsula were widespread throughout Mexico and parts of Central America.

MEXICO: SONORA: Bailowitz collected near Magdalena in mid-October, finding Opsiphanes boisduvali, probably a new STATE record and certainly something far away from its normal range. Also caught were Anaea aidea, Eurema nise, E. boisduvaliana, Chiodes zilpa, and Bollia clytius.

YUCATAN: Due to drought conditions, butterflies were scarce until July, but afterward were very abundant until November in spite of badly lacking rainfall. In the central part of the state a Copiopteryx was taken, a second STATE record far from its normal habitat in the subequatorial rainforest of the Quintana Roo. For the second year in a row, Sphingidae and Saturniidae were very scarce, not counterparting with the abundance of Rhopalocera.

QUINTANA ROO: Butterflies were abundant for the third year in a row, but some species are becoming less so, Caligo memnon, Eueides cleobaea, and Nessaia aglaura as examples. Five specimens of Dynastor taken in the northern part of the state along with several Copiopteryx were the outstanding rare things taken. These species must be at a peak, as they are normally exceedingly rare in the northern part of the state. Sphingidae and Saturniidae were very scarce, as in 1978.

CHIAPAS: Reports from the southern part of the state indicate exceedingly good collecting conditions after a very poor year during 1978.

ZONE 10: SOUTH AMERICA, CARIBBEAN ISLANDS. Coordinator (interim): Paul A. Opler. Contributors: J. J. Bowe (JB), H. Ebert (HE), E. Furtado (EF), B. Mather (BM). This vast area is not thoroughly covered in our summary as only two resident collectors (HE,EF) reported. Space does not allow a complete listing of all species, but copies of the reports will be sent upon request to the coordinator.

BRAZIL: HE provided a full report of collections made in three Brazilian states during 1979. In western Acre State collecting was carried out at Cruzeiro do Sol, near the campus of Projeto Rondon (C) from 13-31 March; along the edge of the Rio Parana dos Mouros, a tributary of the Jurua River (P) from 13 to 15 March, and in the canyon of the Rover Moa near the Peruvian border (M) from 15 to 25 July. Although geological studies were the primary activity of the trips, 178 species were taken as follows (listed as number of species per family): Brassolidae - 3, Heliconidae - 6, Hesperinae - 21, Pyrginae - 25, Ithomiinae - 9, Lycaenidae - 10, Riodinidae - 26, Pieridae - 11, Papilionidae - 9, Nymphalidae - 36, Morphinae - 3, Satyrinae - 19.

In northern Mato Grosso near the upper Arinos River, a tributary of the Amazon, HE and EF were able to garner 360 species in 38 hours afield between 27 Aug. and 9 Sept. Field work was difficult due to oppressive heat and humidity interspersed with heavy rains. Of the species collected, 30 could not be named; many of these may be undescribed. Family representation was as follows: Brassolidae - 8, Danaeinae - 2, Ithomiinae - 6, Heliconidae - 11, Hesperinae - 35, Pyrrhopyginae - 12, Pyrginae - 57, Lycaenidae - 43, Riodinidae - 65, Pieridae - 15, Papilionidae - 13, Nymphalidae - 64, Morphinae - 1, Satyrinae - 37. This is the same locality reported previously as "F" (see NEWS 1971 #2, p. 15-16). There was only small overlap in the species encountered in 1970 and 1979, again pointing out the great year-to-year variability at tropical localities.

At HE's cottage near Imbarie, in the Organ Mountain foothills, Rio de Janeiro State, he has found 534 species in previous years (butterflies). Here, in coffee-citrus plantations abandoned thirty years ago, HE collected 169 species in 18 field hours between 21 Oct. and 8 Nov. Most species were represented by few individuals, another sine qua non of tropical species-individuals distributions. The familial representation was as follows: Acraeidae - 1, Brassolidae - 5, Heliconidae - 7, Hesperinae - 33, Pyrginae - 30, Ithomiinae - 6, Danaeinae - 3, Lycaenidae - 13, Riodinidae - 4, Pieridae - 12, Papilionidae - 7, Nymphalidae - 36, Morphinae - 1, Satyrinae - 11.

PERU: JB reported 94 species collected at a forest preserve along the Rio Tambopata in Madre de Dios Province near the Bolivian border. The following was the familial representation: Satyridae - 22, Danaeinae - 1, Ithomiinae - 10, Heliconidae - 3, Brassolidae - 2, Nymphalidae - 21, Lycaenidae - 4, Riodinidae - 20, Pieridae - 4, Papilionidae - 2, Hesperidae - 5 (sic!).

VIRGIN ISLANDS: From 29 Nov. to 1 Dec. BM collected on Tortola Island (T) and nearby 6-acre Marina Cay (M). The following species were taken: *Choranthus vitellius* (T,M), *Wallengrenia otho* (M), *Pyrgus oileus* (T), *Strymon limenia* (M), *Strymon acis* (M), *Hemiargus ammon* (M), *H. hanno* (T), *Leptotes cassius* (M), *Eurema elathea* (M), *E. lisa* (M), and *Junonia evarete*.

ZONE 11: Province of ONTARIO. Coordinator: Q.F. Hess (QFH). Contributors: J.A. Brown (JAB), S.M. Daniels (SMD), W.J.D. Eberlie (WJDE), N. Escott (NE), W.W. Gregory (WVG), A.M. Holmes (AMH), R.A. Layberry (RAL), W.E.H. Munro (WEHM), J.E. Pilkington (JEP), J. Prideaux (JPX), D. Stewart (DS), R. Tanner (RT), K. Thorne (KT), N.A. Tremblay (NAT), J. Troubridge (JT), John P. Walas (JPW), K. Warren (KW), A. Wormington (AW), P.D. Syme (PDS), G. Sutton (GS), G.C. Daniels (GCD), R.C. Godefroy (RCG), U. Kalnischke (UK), A.D. Robinson (ADR).

ONTARIO: Spring was early in the Hudson Bay/James Bay area, late in the remainder of northern Ontario, fairly normal in southern Ontario, except June was cool. July was near normal, mostly pleasant everywhere except in the Hudson Bay area. August was cool with some extreme storm and tornado activity in some areas. September was cool with a very early heavy frost in central and southern Ontario. The fall was prolonged to the end of November and much of December.

MIGRATORY SPECIES: *Vanessa antiopa* very abundant and migrating southwesterly with *Vanessa atalanta* (ratio 4:1.5) (NAT) (QFH). *Danaus plexippus* generally below normal, spring migration reached Ontario 1st week in June E. and W. (first wave), middle of June (second wave). Fall migration from last part of Aug. to middle of Nov. (most contributors). *Vanessa cardui* was much above normal everywhere N. of Hudson Bay (QFH et al.).

BUTTERFLIES: *Limnitis archippus*, *L. a. astyanax*, *Satyrium acadica* above normal (QFH, KW et al.). Below normal populations for *Vanessa virginiensis*, *Nymphalis milberti*, *Pieris protodice occidentalis*, *Chlosyne nycteis*, *Colias interior*, *Papilio glaucus canadensis*, *Papilio polyxenes* (QFH, et al.). **NEW OCCURRENCE LOCALITIES REPORTED:** *Cercyonis pegala nephele*, Tarzwell (Nipissing Dist.) (QFH), *C. p. nr. ino* & *C. p. nephele*, Thunder Bay (JPW), *Coenonympha tullia nr. inornata*, Winisk (Hudson Bay) (QFH), westerly boundary of *inornata* in southwestern Ontario is near Mt. Forest, both broods (QFH), *Oeneis jutta*, Winisk (QFH), *Erebia disa mancinus*, Fox Township (Cochrane) (JEP), *Callophrys eryphon*, Dorset (QFH), *Lycaena helloides*, Parry Sound Dist. (KT) (NAT), *Euchloe olympia rosa*, Dwight, Port Cunningham (Muskoka) (QFH), *Battus philenor*, Caribou Island (Lake Superior) (AW), *Satyrium liparops fletcheri*, Gentles township (Cochrane Dist.) (RCG), Thunder Bay (JPW), *Papilio troilus*, Goderich (Huron Co.) (GS), *Limnitis archippus*, Timmins (PDS), *Pyrgus centaureae freija*, Winisk (Hudson Bay) (QFH), *Epargyreus clarus*, Rainy River (AW).

MOTHS: SPHINGIDAE: *Manduca quinquemaculata*, 4 larvae on Jack-O-lantern, Berwick, *Sphinx drupiferarum* larva on white birch, Hudson, *Hemaris diffinis* larva on honeysuckle, Hearst (PDS). SATURNIIDAE: *Antheraea polyphemus* larva on willow, Thessalon (PDS), generally normal population or above, *Actias luna* larva on white birch, Thessalon (PDS), generally normal or above population, *polyphemus* larvae on willow and elm, Ottawa (RAL), *Hyalophora columbia* above normal, Huntsville (NAT), *Hyalophora cecropia* below normal (NAT) (WEHM). CATOCALINAE: *Catocala briseis* abundant, *C. unijuga* abundant, *C. semirelicta* rare, *C. relicta* abundant, *C. cerogama* rare, *C. concumbens* not common, *C. mira* rare, *C. parta* abundant, Thunder Bay (JPW). **NEW OCCURRENCE LOCALITIES REPORTED:** *Hemileuca* sp. nr. *Lucina*, Henry Edwards--two localities discovered nr. Ottawa in calcareous fens by RAL in 1977. He is working on the life history. Foodplant is *Menyanthes trifoliata*. Adults fly 9-22 Sept. Overwintering is in egg stage. *Thysania zenobia*, Hamilton at light, 25 July (JT). **LIFE HISTORIES:** *Coenonympha tullia inornata* in southern Ontario by WJDE, 1977, 78, 79, majority of larvae from June 78 ova produced adults in Aug. 78 but a few overwintered and produced June adults in 79. Aug. 78 ova produced adults in June 79. Foodplant of *Lycaena helloides* at Sudden Tract, Waterloo Region is *Polygonum amphibium* L. var. *stipulaceum* (Coleman) Fern. f. *hirtuosum* (Farw.) Fern. (WJDE), *Battus philenor* life history at Oakville worked out in 1979 by JAB. For detailed data on Ontario Lepidoptera in 1979 please refer to the Toronto Entomologists' Association Occas. Papers #11 and 12, write Al. Hanks, 34 Seaton Drive, Aurora, Ontario L4G 2K1.



1980 ANNUAL MEETING REMINDER.....

By the time this issue of the NEWS reaches you, the deadline for submitting papers for presentation at the 1980 ANNUAL MEETING may already have passed, but it is not too late to arrange your advance registration for the meeting.

The details are on page 2 of this volume of the NEWS (Jan/Feb Issue), and the registration form is on page 11. Plan now to attend!

CHARLIE NEEDS DOOR PRIZES!.....

1980 will be the tenth year of the door prize extravaganza at the Annual Meeting Banquet, an event looked forward to by all attendees. Anyone able and willing to contribute a prize should contact Charles V. Covell, Jr. If you are attending the meeting, please bring your donation with you; if not, please send it to Dale Habeck, our host in Gainesville, or to C.V. Covell in Louisville.

1980 ELECTION RESULTS.....

The results of the recent Society election of officers, based on the 597 ballots received by the 15 January 1980 deadline, have now been tabulated. I am pleased to announce the following successful candidates, all of whom will take office on 22 June 1980 at the Gainesville meeting:

President-elect: Carlos R. Beutelspacher B.

First Vice-president: Ray E. Stanford

Vice-presidents: Olavi Soltavalt
Keith S. Brown, Jr.

Executive Council Members-at-Large:
Robert M. Pyle
Robert L. Langston
Arthur M. Shapiro

Julian P. Donahue was elected for another three-year term as Secretary, effective 1 January 1980, and Douglas C. Ferguson was elected as the Members' Representative on the Karl Jordan Medal selection committee.

We are further pleased to announce that Lionel G. Higgins and Zdravko Lorkovic have both been elected Honorary Life Members of the Society. The constitution requires that the nominees receive at least 80% of the ballots cast in an election. Higgins received a 90.3% favorable vote and Lorkovic an 85.9% favorable vote.

Julian P. Donahue, Secretary

STUDIES ON ENDANGERED PRAIRIE SKIPPERS.....

In conjunction with an extensive "base-line" flora and faunistic survey of the loess hill land formation in western Iowa, a prairie-skipper workshop and foray is being planned for 28-29 June 1980, and the following week. Field work will commence on 30 June after a two-day workshop during which both authorities and novices will cooperate in designing an appropriate data-gathering strategy. The workshop will be held at Lakeside Laboratory on Lake West Okoboji in northwestern Iowa, with appropriate trips to nearby Caylor Prairie for on-site studies. It is hoped that this "group" approach will initiate a productive series of both immediate and long-range studies and may be a model for concentrated work in other regions.

Any interested members should contact Dr. John C. Downey, Biology Dept., University of Northern Iowa, Cedar Falls, IA 50613.

UNIVERSITY CREDITS FOR PRAIRIE BUTTERFLY STUDIES.....

During the second five-week summer session at Lakeside Laboratory (14 July - 16 August 1980), a field station in western Iowa, a five semester-hour credit course will be offered on Insect Ecology and Behavior. Emphasis will be on insects of the prairie, with particular attention given to butterflies, designed especially to follow an earlier (28-29 June) workshop and research foray involving prairie studies of the Loess Hill land form. Research credits are also available. Interested advanced undergraduates and graduates should contact Dr. John C. Downey (address above) for further information. Registration can be through any of the Iowa regents institutions (U. of Iowa, Iowa State, or Univ. No. Iowa) and credits should readily transfer to other institutions. Space will be limited, so early contact and approval are desirable.

HELP SOLICITED ON BUTTERFLY GUIDE.....

Dr. James Scott, 60 Estes Street, Lakewood, Colorado 80226, announces the "Field Guide to North American Butterflies", which is nearing completion. The book includes maps showing the distribution of all North American butterflies and skippers, and emphasizes identification, variation, and especially natural history. The author requests new and unpublished information, that could be included in the book. Suggestions on common names are wanted also.

UTAH LEPIDOPTERISTS.....

The Utah Lepidopterists' Society is now in its 4th year of operation. We hold meeting every month, currently have 21 active participants, and supply our members with much written information concerning all aspects of Lepidoptera, particularly as they apply to Utah.

1980 will be a banner year for us in many ways. We respectfully invite you to become a member of ULS. For those who do not attend our meetings, all material will be sent to them by mail. Dues are \$5.00 per year, payable to Ms Emily C. Dial, ULS Sec/Treas., 3802 S. 2850 East, Salt Lake City, UT 84109.

COL Clyde F. Gillette, Pres., ULS

THE LEPIDOPTERA POPULATION STUDY GROUP.....

The LPSG is an informal association of Lepidopterists who live in northern and central California. Founded in 1974, it has tried to meet at least three times a year. Meetings are usually held at Art Shapiro's house in Davis and involve one or more slide shows and a variety of imbibibles. They can be held as often as people have programs to present.

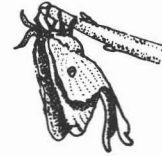
After a couple of years of intermittent activity, largely due to Art's spending chunks of the winter in Argentina, the program is resuming with a photographic trip to Colombia, offered by U.C. Davis entomology student Marc Minno later this winter. Any nor-Cal Lepidopterist who would like to participate, give a program, or get on the mailing list (for a buck) is invited to contact Art Shapiro, 313 Mills Drive, Davis, CA 95616.

MIDWEST LEPIDOPTERISTS' SOCIETY.....

The spring meeting of the newly formed Midwest Lepidopterists' Society (tentatively referred to in the last issue of the NEWS as the Chicago Area L. S.) will be held on Sunday, 20 April 1980, at 1:00 p.m. in the Field Museum of Natural History in Chicago. Among the items on the agenda will be the planning of summer field trips. For further information contact Mark Meyers, 6456 N. Seeley, Chicago, IL 60645, phone 312-262-8465.



New Members



ARMSTRONG, DR. HAROLD L., P.O.Box 343, Fremont WI 54940
 BACKUS, MS. NELL G., 2626 NW 12th Ave., Gainesville, FL 32605
 BIGELOW, DAVID M., 9765 Larkin Rd., Eden, NY 14057
 BOGAR, DANIEL S., Dept. of Entomology, Texas A & M Univ., College Station, TX 77483
 BRAUN, TERRY, 915 S. Klein, Reedley, CA 93654
 BROWN, SCOTT N., 255 Oakland Ave., Athens, GA 30606
 CLAPPE, MICHAEL A., 1832 Morlow Rd., Toledo, OH 43613
 DAVIS, PAUL F., Dept of Zoology, Univ. of Texas, Austin, TX 78712
 EITSCHBERGER, ULF., Deutsche Forschungszentrale für Schmetterlingsw., Humboldtstrasse 13, D-8671 Markt-leu-then, WEST GERMANY
 FERNANDEZ VIDAL, ELISEO H., c/ Uruguay, Nro 2 - 3ro Izq., El Ferrol (La Coruna), SPAIN
 GLUCK, WILLIAM, 352 6th Ave. So., Apt. 4, Fargo, ND 58103
 GOOD, ARTHUR W., 3330 Russell Ave., Parma, OH 44134
 GRIEPENTROG, ELMER L., Elsie Rt. Box 740, Seaside, OR 97138
 HAMMITT, MICHAEL R., JR., 2409 E. Buffalo, Santa Ana CA 92701
 HENTZ, JEFFREY, 8016 W. Center, Milwaukee, WI 53222
 HEPPELLE, DONALD, 969 Pine St., Castle Shannon, Pitts-burgh, PA 15234
 HUBER, KONRAD, 612 Wallace Dr., Wayne, PA 19087
 JACKSON, BERNARD S., Oxen Pond Botanic Park, Memorial Un-iversity, St. John's, NEWF, CANADA A1C 5S7
 JOHANNESSEN, ROBBIE, 2806 Whisper Oak Dr., Gulf Breeze, FL 32561
 JOLLEY, WALTER E., DVM, 201 W. Indiantown Rd., Jupiter, FL 33458
 KNIGHT, DOUGLAS W., Box 6, Site 8, R.R.1, Creston, B.C., CANADA V0B 1G0
 KRAL, RONALD J., Rt. 2, Box 648, Necedah, WI 54646
 LEUTHY, ROBERT D., 222 States St., San Francisco, CA 94114
 LEVIN, ANN J., Lothian 500 Big Springs, Riverside, CA 92507

McCAFFREY, J., P.O.Box 10, Sunspot, NM 88349
 NIELSEN, EBBE SCHMIDT, Universitetsparken 15, DK 2100 København, DANMARK
 ONO, HIDEJI, P.O.Box 763, Vulcan, Alta., CANADA TOL 2B0
 PASSOA, STEVEN, 219-66 67 Ave., Bayside, NY 11364
 PEMBERTON, MARVIN, 14570 Bramble Ct., Milwaukie, OR 97222
 PHILLIPS, RANDALL S., R.R.#2, Urmana, IL 61801
 PRCHAL, STEVEN, 2219 N. Columbus, Tucson, AZ 85712
 REICHEL, JOHN (Copy 2), Box 789, Revelstoke, B.C., CANADA, VOE 2S0
 ROSKO, THOMAS, 89 Milland Dr., Mill Valley, CA 94941
 RUMBAUGH, CHARLES K., 3520 E. Dudley, Indianapolis, IN 46227
 SHIMONOYA, TOYOKAZU, 31-12 Houei 3-chome, Fukui-shi, JAPAN 910
 SCHWARTZ, DR. ALBERT., Dept. of Biology, Miami Dade Comm. College, No. Campus, Miami, FL 33167
 SHERROD, DAVID, 5422 Mojave Ct., Helena, MT 59601
 SMITH, OLIVER 4th, 566 Buttonwood Farm Rd., Millersville, PA 17551
 SMITH, Miss VIRGINIA, 566 Buttonwood Farm Rd., Millers-ville, PA 17551
 STEEGE, LYNN R., 695 Wilson, Dubuque, IA 52001
 STEEVES, LINDA, 76 Stoneybrook Ct., Halifax, Nova Scotia, CANADA B3M 3J7
 STEINER, JOHN, 42 Mohawk, Corte Madera, CA 94925
 STEVENS, CHARLES M., 3114 Belden Cir. #3, Jacksonville, FL 32207
 TAYLOR, KENNETH, 1251 Church Rd., Angola, NY 14006
 UEDA, KYOICHIRO, Kitakyushu Mus. Nat.History, Tobata Shi-minkaikan Bldg. 1-49, Senbo 1-chome, Tobataku Kitaky-ushu, 804 JAPAN
 WARREN, DR. LESLIE F., 3867 Almdro Way, Camarillo, CA 93010
 WILCOX, MARK W., 2901 W. 700 South, Syracuse, UT 84041
 WILLIAMS, DEREK, 100 Rowena Dr. #802, Don Mills, Ontario CANADA M3A 1R1

Address Changes



BARKSDALE, CHARLES M.: Apt #233, 3481 Stancrest, Glendale CA 91208
 BLAU, WILLIAM S.: Dept. Entomol., N. Car. State Univ., 480 Method Rd., Unit 1, Raleigh, NC 27607
 BOSCOE, RICHARD W.: 150 Ridge Pike #201, Lafayette Hill, PA 19444
 CALHOUN, JOHN: 382 Tradewind Ct., Westerville, OH 43081
 CAMPBELL, CLINTON L.: Rm. 414 Scott Hall, Wash. State Univ., Pullman, WA 99163
 COLLINS, MICHAEL M.: Dept. Zoology, Univ. Calif., Davis, CA 95616
 COTTON, ADAM MILES: 27, Trent Court, Mereside Way, Olton, Solihull, West Midlands, ENGLAND
 CRANE, MICHAEL: Rt. 2, Box 70, Grangeville, ID 83530
 CROWE, RAY: 225 NE 30th St., Hillsboro, OR 97123
 DESCIMON, DR. HENRI: 3 Place Victor-Hugo, 13331 Marseille Cedex 3, FRANCE
 DOUGLAS, MALCOLM G.: 1626 Sweet Briar Pl., Thousand Oaks, CA 91360
 DUNLAP, CARLOS L.: 3000 W. Leeward Way, Oxnard, CA 95076
 DUNLEAVY, BRIAN: 2040 Grubbs Mill Rd., Berwyn, PA 19312
 DYMAK, JOSEPH F. III: 207 NE 58th Ter., Apt. #2, Glad-stone, MO 64118
 EARLY, WALTER BLAINE III; Dept. Biology, Cumberland Col-

lege, Williamsburg, KY 40769
 FEE, FRANK D.: 308 S. Carl St., State College, PA 16801
 FITTER, JAMES R., 707 Karen, Copperas Cove, TX 76522
 FULLER, E. R.: 47 Davies Cresc., Barrie, Ontario, CANADA L4M 2M4
 FURTADA, EURIDES: Caixa Postal, 104, 78.860 Diamantino, Mato Grosso, BRASIL
 GARRISON, DR. ROSSER W.: Calle Iris UU-18B, Boriquen Gar-dens, Rio Piedras, PR 00926
 GRING, DANA M.: 6126 Harvest Lane, Toledo, OH 43623
 HEDGES, WILLIAM A.: 1512 Private Rd., Prescott, AZ 86301
 HENDERSON, Mrs. JANE E.: Sandy Ridge Rd., Stockton NJ 08559
 KOIKE, HISAYOSKI: 2-711-203, Azuma, Sakura-mura, niibari-gun, Ibaraki-Pref., 305, JAPAN.
 LICHTI, W. F.: 65 Ashgrove Cresc., Ottawa, Ontario, CANADA K2G 0S8
 LUDTKE, ALVIN F.: Cerro Maravilla N8, Lomas de Carolina, PR 00630
 MASSEY, W. J.: 929 S. Eldorado, San Mateo, CA 94402
 McCABE, TIM L.: Cultural Education Center, Rm 3132, New York State Museum, Albany, NY 12230
 McWILLIAMS, MARLEN: P.O.Box 199, Panguitch, UT 84759
 MILES, NANCY JO: Dept. of Statistics, Oregon State Univ.,

Corvallis, OR 97331
 MINNO, MARC C.: 517 Oxford Circle #302, Davis CA 95616
 MULLINS, DOUGLAS: 3011 W. Nebraska, Tucson, AZ 85714
 NICOLAZZO, FRANCESCO: #4 Cordillo Villita, Hilton Head
 Island, SC 29928
 O'HARA, BRUCE: 4633 Ventura Cyn.Ave., Sherman Oaks, CA
 91423
 OLYHA, LYNN D.: 1024 S. Lumpkin, Athens, GA 30605
 OPPEWALL, JEANNINE: 2145 Hillsboro Ave., Los Angeles CA
 90034
 PETERSON, RICHARD D. III: 3412 Kiwi, McAllen, TX 78501
 PHILLIPPI, DALE M.: 515 Daytona Pkwy, Apt. 7, Dayton, OH
 45406
 POWELL, GWENDOLYN S.: 1500 NW 12th Ave, #1711, Miami, FL
 33136
 RICHARDSON, CHARLES HERB: 2999 Kalakaua Ave. #104, Hono-
 lulu, HI 96815
 ROBBINS, ROBERT: STRI, Box 2072, Balboa, Panama
 ROTGER, Rev. BERNARD, C.R.: Casa Parroquial, Playa Azul,
 Michoacan, MEXICO
 ROZYCKI, RICHARD: 5830 s. McVicker Ave., Chicago, IL 60638
 SAMUELSON, G. ALLEN: B. P. Bishop Museum, P.O.Box 19000-A
 Honolulu, HI 96819
 SLOTTEN, JERRREY R.: 914 SW 6th Ave., Gainesville, FL
 32067

SMALL, GORDON B. JR.: PSC Box 2510, APO Miami, FL 34002
 SMITH, ARTUR C.: 1536 Green Valley Rd., Watsonville, CA
 95076
 SMITH, JEFFREY A, 1470 Fairhaven Ct., San Jose, CA 95118
 STORKOFF, DIANA: 2908 N. Richmond Dr., Muncie, IN 47304
 STRALEY, GERALD B.: Van Dusen Botanical Gardens, 5251 Oak
 St., Vancouver, BC, CANADA V6M 4H1
 STRAUSS, DR. JAMES H.: Div. of Biology, Calif Inst. of
 Technology, Pasadena, CA 91125
 DeSWARTE, DAVID H.: 8670 Silver Spring Dr., Milwaukee, WI
 53225
 TAKI, TOSHIHIKO: c/o Kyoto Katsura Hospital, 17 Yamada-
 hirao-cho, Nishikyo-ku, Kyoto 615, JAPAN
 TEWELL, JOHN: R.R. 2 Box 304 AAA, Pittsburg, KS 66762
 TODD, DR. E. L.: 6820 Kingwood Dr., Falls Church, VA 22042
 TOEANTE, ICHWAN: P.O. Box 4023, Jakarta, INDONESIA
 TUTTLE, JIM: 1929 Plymouth Rd. #3011, Ann Arbor MI 48105
 YOUNG, ROBERT G. JR.: 3101 N. Midland Dr. #402, Midland,
 TX 79703

ADDRESS CORRECTIONS:

DIRIG, ROBERT: Pine Bush Historic Preservation Project,
 Inc., P.O.Box 22820, 1400 Washington Ave., Albany, NY
 12222.
 KITAGAWA, ASAO: 4-24-13 Mejiro, Toshima-ku, Tokyo, JAPAN.

Buy Sell Exchange

Items submitted for inclusion in this section are dealt with in the manner explained on page 8 of the 1980 NEWS (Jan/Feb issue). The abbreviation "SASE" below stands for "self-addressed stamped envelope".

FOR SALE: Butterfly & Moth Collection, primarily Tenn. & Mich. material, 4200 specimens, excellent condition, complete data, Cornell drawers, unit trays, parasites & pupal skins, 1300 Catocala, 1100 Hesperidae. Includes good series of E. mitchelli, C. muticum, H. ottoe, & O. powasheik from Mich. Complete inventory on request. Will consider highest offer. Wayne A. Miller, 2209 Parkview, Kalamazoo, MI 49008.
 FOR SALE: ova of A. polyphemus, H. cecropia, & A. io, spring 1980. Bonnie Ravy, 4686 Valley Heights Rd., Oshkosh, WI 54901
 FOR SALE: good selection of N. American butterflies with many hard to get species such as P. kahli, P. oregonus, C. spinetorum, arctic Erebias, Oeneis, Boloria, and Colias. All perfect with full data. Send for list. Ken Thorne, Mill St., Delaware, Ontario, CANADA, NOL 1E0 (Phone 519-652-5194)
 WANTED: copy of The Monarch Butterfly by F.A.Urquhart. T.J.Walker, Dept. Entomol., Univ. Fla., Gainesville, FL 32611 USA
 WANTED: correspondence with western US collectors who would be interested in exchanging lepidoptera. Also needed: ova or overwintering larvae of Speyeria & Boloria species from western US. All letters answered. Frank Bodnor, Box 52, Spring Church, PA 16586.
 FOR SALE: limited supply of papered lepidoptera from Africa, S. America, s.e.Asia, some species never or rarely offered. Free list on request. John Beurie, 3411 199 Ave. N.E., Cedar, MN 55011 (612-434-6368).
 EXCHANGE: pupa of E. imperialis, ova from wild ♀. Want A1 butterflies & moths from all parts of US and Canada (papered). Can also offer wild cocoons of A. polyphemus. Preferred material: Colias, Oeneis, Erebias, Speyeria, Euphydryas, Boloria. Mecky Furr, 7925 Cross Pike, Germantown, TN 38138.
 FOR SALE: surplus Agrias narcissus ♀♀ A1 in papers with full data. Stanley K. Dvorak, 4323 Oxford St., La Mesa CA 92041 USA
 WANTED: now and during the coming season: Lycaenidae, all

genera of N. America and Eurasia, including the very common; also some tropicals. Will exchange: Ornithoptera, Morpho, Papilio, other Lycaenidae, etc. Please send list of offerata in return for list of available specimens. David W. Bouton, 435 Main St., Johnson City, NY 13790 USA.
 FOR SALE: Cocoons of A. luna, A. polyphemus, H. gloveri, and some Hyalophora hybrids and back-crosses. Send self-addressed stamped envelope for prices and information. Carita Hamblin Bates, Eldorado Springs, CO 80025
 FOR SALE: most western US butterflies & skippers. Write for list. James Scott, 60 Estes St., Lakewood, CO 80226
 WANTED: ova and/or pupae of the following families: Sphingidae, esp. Hemaris, pholus, and Darapsa; Saturniidae, esp. Pseudohazis & Hemileuca, and also any US Papilio livestock. Will buy or trade for US livestock. Send offers to James Bess, 12247 Onondaga Rd., Onondaga, MI 49264.
 WANTED: will buy livestock and A1 papered material of Saturniidae worldwide, esp. calleta, cecropia, Rothschildia & Brahmaea. Will buy & exchange A1 specimens of any Parnassius. All letters answered. Reinhold Spelz, Katharinenstr. 10, D-4300 Essen 1, W.GERMANY
 FOR SALE: O. paradisea arfakensis, O. tithonus, O. goiathi joiceyi, O. rothschildi, O. croesus lydius. A1 specimens only, none protected. Have NO other lepidoptera for sale. SASE for price list: Richard S. Fisher, 2529 Concordgreen Dr., Cincinnati, OH 45244.
 WANTED: Colorado Butterflies by F.M.Brown, J.D.Eff, & B. Rotger, 1957, Denver Mus. Nat. Hist. Contact Ernest H. Williams, Dept. Biol. Sci., Wellesley College, Wellesley, MA 02181.
 FOR SALE: O. tithonus ♂♀, paradisea arfakensis ♂♀, rothschildi ♂♀, lydius ♂♀, P. ulysses diff. isl. ♂♂; very low prices. Henry Hensel, 145 Bellevue Str., Edmonds-ton, N.B., CANADA E3V 2E2.
 WANTED: correspondence with anyone who has caught semi-melanic P. glaucus or aberrant types of other Papilio or Speyeria in WV, VA, & OH during past seasons, and...
 FOR SALE: A1 papered S. diana ♂♂, S. cybele, S. aphrodite, P. troilus, P. glaucus, B. philenor, G. marcellus and others. Available during May-July 1980. Write for free list and letter. Fred Bower, YMCA 19 East Ave., Lockport, NY 14094.

WANTED: Spingidae of the world, individual specimens or lots to 1000. Any Louisiana lepidoptera, pinned or papered, in exchange. Vernon A. Brou, Rt.1, Box 74, Edgard, LA 70049 USA.

MEMBERS' COMMERCIAL NOTICES.....

Simon Ellis, Transworld Entomological Co., P.O.Box 14, Reigate, Surrey. RH2 9PW ENGLAND: worldwide butterflies, esp. S. America; tropical butterfly pupae; books, equipment. Wants contact with tropical breeders.

Mrs. Chang Pi-Tzu, P.O.Box 873, Taipei, TAIWAN: Formosan moth livestock; Formosan leps. and non-leps.

Ray Adams F.R.E.S., Carreterra Principal 139, TAMARACEITE, LAS PALMAS DE GRAN CANARIA: list of Canary Island and worldwide livestock and Dominican Republic papered material available for \$2 (banknotes only).

B. J. Gooi, P.O.Box 9, Tanah Rata, Cameron Highlands, WEST MALAYSIA: deals in Malaysian & Indonesian butterflies, moths, and beetles (and has 3 perfect gynandromorphs to offer).

Asakawa Trading Co., 41-3, Minamibiraki, Komatsushima, Tokushima, JAPAN: buys tropical and sells Japanese butterflies.

RESEARCH REQUESTS.....

❖ Want to buy pupae of C. promethea from univoltine populations, A. luna from univoltine and multivoltine populations. Stock must not be inbred. D. C. G. Oliver, R. D. 1, Box 78, Scottdale, PA 15683.

❖ For a research project to clarify the difficult holarctic Pieris napi complex, specimens are needed from all areas. Correct collecting data required. Will buy or exchange. Contact Ulf Eitschberger, Humboldtstrasse 13, D-8671 Markt-leuthen, WEST GERMANY.

❖ Want records and specimens of Proserpinus gaurae from southeastern US. Reply to Vernon A. Brou, Rt.1, Box 74, Edgard, LA 70049 USA

❖ Specimens of the genus Trogus (Hymenoptera: Ichneumonidae), collected or reared, including live material if possible, are sought for a study to determine whether the five described N. Am. species may actually represent a single species. These organisms are parasitoid on many Papilio species. A reprint describing the problem, with a key for recognition of the species of Trogus, may be requested from Robert T. Mitchell, 4109 Tennyson Rd., Hyattsville, MD 20782. Assistance is requested from collectors, curators of collections, and rearers of N. Am. swallowtail butterflies.

MORE ON REMOTE ISLAND BUTTERFLIES..... (AND MOTHS)

R. L. Langston writes that Hawaii has actually 14 butterfly species, including two US mainland species (beyond the 2 endemics and 10 introductions noted by James Scott in the Sept/Oct '79 NEWS): on the island of Oahu Hylephila phileus (Drury) and Agraulis vanillae incarnata (Riley) were in evidence as of January 1978. The fiery skipper was found in small numbers in the greater Honolulu area from the airport on the west to the Aina Haina district in the east. The gulf fritillary was present in very large numbers (the most abundant butterfly in January) on both the windward and leeward sides of Oahu. They showed very little variation, although these January adults averaged smaller in size than in mainland California (Langston, 1979, Pan-Pac. Ent. 55 (1); 75-76; NEWS Lep. Soc. No. 2 p.5, Mar/Apr 1979).

A further note from James Scott also mentions the above two species, and adds Brephidium exilis, without locality details.

And another note from James Scott indicates that in the Canadian National Collection (C. Durden, in litt.) there is a Vanessa cardui from northern Greenland.

To insure that "moths get equal time", attention should be directed to the paper by Bob Silberglied (Biol. Conserv. 13: 273, 1978) on inter-island transport of insects aboard ships in the Galapagos Islands. Moths attracted to the deck lights on cruise ships were surveyed on several occasions. On one night over one thousand moths were estimated to be present (13 species, including only 4 endemics); many were still present on reaching another island the next day, and several, including two Galapagos endemics, were still alive upon arrival in Ecuador. It is clear that individual island endemics are being rapidly diluted by introductions from adjacent islands and from the mainland, and that the mechanism is not obscure!

BOOK REVIEW.....

Insects and Other Invertebrates of the World of Stamps. The Biology Unit of the American Topical Assoc., Inc., (3306 N.50th St., Milwaukee, WI 53216): 137 pp., 13 full & partial pages of illustrations. \$10.00 postpaid.

The collector of butterfly stamps has heretofore spent hours poring through stamp bins or scouring catalogs in search of new species for his collection. He can now acquire a tool enabling him not only to find out what butterflies exist but also the present range and abundance of each species. These data sometimes depart radically from those published by and for the net-swinging lepidopterist, making it possible to find many desirable species such as Morphos and Birdwings in places from which they have not been previously reported, while "trash species" such as Papilio polyxenes, which exists only in Cuba, have become highly prized. In fact, Pieris rapae, according to the philatelepidopterist, has actually become extinct and is in great demand.

The aforementioned tool is a 137 p. book which devotes 40 pp. to philatelic butterflies and moths of the world and 77 pages to other insects and arthropods. It provides complete taxonomic classifications, as well as checklists arranged according to the countries in which the various species occur on stamps. This makes it possible for the collector to arrange his catch either by species or geographically, with equal ease.

About the only unresolved problem is nomenclature. The names appearing on the stamps do not always tally with those in the book. Many names on the stamps are outmoded, and some are totally incorrect, such as Danaus genutia, a Cambodian form, which is labelled D. plexippus, and two identical specimens of Amauris ansorgei one of which is labelled correctly, and the other as Euphaedra zaddachi.

Updating of taxonomic status has in most cases been accomplished admirably by Alan J. Hanks & Donald P. Wright Jr., although there is some question in my mind as to whether the Parnassius sp. from N. Korea is really P. nomion: is it perhaps P. honrathi, or even P. tianschanicus? A Chinese scholar may be needed here.

Several of the smallest but most noteworthy lepidoptera have been omitted from the book as insignificant or unidentifiable, such as the Saturnia pyri from France being examined with a hand glass by Henri Fabre (1956), a small white butterfly from Hawaii resting in the hair of Queen Lilioukalani (1890), and most thought provoking of all, a painting of butterflies and flowers from Czechoslovakia, done by an 11 year old girl while she was imprisoned in the concentration camp at Terezin.

These few omissions do not, however, detract from the usefulness of the book which, for the first time, allows the philatelepidopterist to determine, in a matter of seconds, which species are available to him on a world wide basis, usually at a quite low cost. Jo Brewer.

from: The Lepidopterists' Society
Department of Biology
University of Louisville
Louisville, Kentucky 40208, USA

Address correction requested.

NONPROFIT ORG
BULK RATE
U.S. POSTAGE

PAID

PERMIT NO. 116
LAWRENCE, KS

J. Donald Eff
445 Theresa Dr.
Boulder, CO 80303

=====
Material submitted for publication in a particular issue of the NEWS should reach the NEWS EDITOR no later than the seventh of the preceding even-numbered month. Members are encouraged to submit articles and notes of general interest.
=====

AVAILABLE PUBLICATIONS OF THE SOCIETY

THE LEPIDOPTERISTS' SOCIETY COMMEMORATIVE VOLUME 1947-1972: A 25-year review of the Society's organization, personnel, activities. Biographical sketches. Journal indices by author, subject, and taxon. Hard bound. Price \$6.00 (members), \$10.00 (non-members), sent postpaid.

JOURNAL of the Lepidopterists' Society (and its forerunner, LEPIDOPTERISTS' NEWS), from Vol. 1 (1947) to date, \$13.00 per volume, postpaid. Individual numbers available at prices depending on how many numbers were published in each volume (varies from 4 to 8). NOT available are: Vol. 7, No. 3/4, Vol. 9, No. 3/4, Vol. 12, No. 1/2, and Vol. 21, No. 1.

NEWS of the Lepidopterists' Society. Some recent issues are still available at 25¢ per copy, postpaid. Inquire as to availability before sending money.

ORDER FROM: Dr. Charles V. Covell, Jr., Memoirs Editor, Department of Biology, University of Louisville, Louisville, Kentucky 40208, USA.

=====
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 the full dues for the current year (\$13.00 U.S.), together with mailing address and areas of interest in Lepidoptera. Student and retired memberships also available. Remittances should be in U.S. dollars, payable to the Lepidopterists' Society. All members (except retired) will receive the JOURNAL (published quarterly) and the NEWS (published bimonthly). A biennial membership list will comprise one issue of the NEWS in even-numbered years. Back issues may be purchased from the Memoirs Editor, Dr. Charles Covell, Jr., (address above).

Information on membership may be obtained from the TREASURER, Ron Leuschner, 1900 John Street, Manhattan Beach, California 90266, USA. Changes of address must be sent to the TREASURER, and only when the changes are permanent or very long-term.

Other information about the Society may be obtained from the SECRETARY, Julian P. Donahue, Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, California 90007, USA. Please notify him of any additions or changes of interests to be published in the Membership List.

Manuscripts for publication in the JOURNAL are to be sent to the EDITOR, Dr. Austin A. Platt, Department of Biological Sciences, UMBC, 5401 Wilkens Ave., Catonsville, Maryland 21228, USA. See the inside back cover of a recent issue of the JOURNAL for editorial policies.