

NEWS

of the LEPIDOPTERISTS' SOCIETY

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June Preston, Editor
832 Sunset Drive
Lawrence, KS 66044
USA

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ZONE 1 SOUTHWEST: ARIZONA, NEVADA, CALIFORNIA. Coordinator: R. L. Langston (RLL). Contributors: Arizona Big-moth Circus (ABC) [Whole or in part; E. Brown, G. P. Brueya (GB), T. Carr (TC), S. McElfresh, S. Meredith, M. J. Smith (MS), Jean Smith, S. Stone (SS), Cindy Taylor, P. Tuskes & J. Tuttle (JT)], G. T. Austin (GA), W. W. Beebe (WB), J. P. Brock (JB), L. Crabtree (LC), K. Davenport (KD), W. R. Dawes (WD), T. E. Dimock (TD), J. F. Emmel (JE), C. D. Ferris (CDF), B. M. Griffin (BG), C. Hageman (CH), K. C. Hansen (KH), R. V. Kelsen (RK), R. H. Leuschner (RHL), A. F. Ludtke (AL), Eileen Mattoon (EM), S. O. Mattoon (SM), J. R. Mori (JM), B. A. O'Hara (BO), D. Parkinson (DP), F. W. & June Preston (FJP), R. Robertson (RR), R. C. & Dorothy Rosche (RDR), A. H. Rubbert (AR), A. M. Shapiro (AS), O. Shields (OS), R. J. Skalski (RS) and W. L. Swisher (WS). COUNTY, STATE (in caps.) = new county, state records. NORTH, SOUTH, EARLY, LATE, etc. (in caps.) are also considered unusual by the contributors and/or the coordinator.

ARIZONA. One new COUNTY record for an arctiid moth. Recorded for the butterflies are six new COUNTY records, generally filling gaps, rather than distinct range extensions. Most data was from the well-collected southeastern part of the state--especially among the larger, more spectacular moths. For example, a 3-page detailed report from JT--most species have been in previous Summaries, and none were stated as NEW to their respective areas. Possibly due to a wet winter and the timing of summer storms, there were unusual amounts of LATE records--some being in Oct. & Nov., 1983.

MIGRATORY SPECIES: Large sulphurs (Phoebis, Anteos) were found by many, but no migrations or distinct northerly range extensions reported. *Vanessa cardui* present, Escudilla Mtn., 9300'-9600', Apache Co., 13-14, 20 June (CDF)--but not migratory numbers noted.

BUTTERFLIES: *Thorybes drusus*, Garden Cyn., Huachuca Mtns., Cochise Co., 23 July (JB); *Systasea zampa*, 3 mi SE. Patagonia, Santa Cruz Co., 2 Sept. (DP); *Erynnis scudderi*, Carr Peak, Huachuca Mtns., 6 Aug., LATE (JB); *Heliopterus dometia* very common, Seven Falls trail, Bear Cyn., Santa Catalina Mtns., Pima Co., 1 May (MS); *Pyrgus xanthus*, *Polites draco* & *P. themistocles*, Escudilla Mtn., 9300'-9600', Apache Co., 13-14, 20 June (CDF); *Lerodea arabus* common, Lower Bear Cyn., 1 May (MS); *Agathymus evansi*, Garden Cyn., 5 Sept. (DP); Last instar larva of *P. multicaudatus* on Arizona Rosewood (Latin name illegible), 17 Oct. (KH) & adults in good numbers, Garden Cyn., 3-5 Sept. (DP); *Neophasia terlotii*, Garden Cyn., 11 Nov., LATE, abundant, some still fresh (JB, BO); *P. protodice*, Escudilla Mtn., APACHE CO., 13-14, 20 June (CDF); *Anteos clorinde nivifera* in good numbers, Garden Cyn., 3-5 Sept. (DP); *Phoebis philea*, 9.5 mi SE. Patagonia, SANTA CRUZ COUNTY, 27 Aug. (JB) & Box Cyn., Pima Co. with *P. agarithe*, 18 Aug. (KH); *Kricogonia castalia* fairly common, Guadalupe Cyn., Peloncillo Mtns., Cochise Co., 28 Aug. (KH, Bob Rolly, Doug & Mary Mullins); *Hypaurotis crysalus*, Copper Cyn., Huachuca Mtns., 2 Sept. (DP); *Chlorostymon simaethis sarita* perched on *Chrysothamnus*, Parker Cyn., Huachuca Mtns., 23 Oct. (WB) [very LATE, previous records April-June (RLL)]; *Ministrymon leda* & *Strymon melinus franki*, Escudilla Mtn., both new for APACHE CO., 13-14, 20 June (CDF); *Thessalia theona thekla* & *T. fulvia* unusually common, Cave Creek Cyn. & arroyos near Portal, 14-16 June (CDF); *Microtia elva*, 4 mi SE. Patagonia, Santa Cruz Co., 3 Sept. (JB, BO); *Junonia* larvae feeding on *Mimulus* sp., Box Cyn., 15 Aug.--85% emgd. as *coenia* & 15% as *nigrosuffusa* (KH) [KH also reported intermediates, but it's already 100% (RLL)]; *J. nigrosuffusa*, Sycamore Cyn., Santa Cruz Co., 1 Sept. (DP). *Basilarchia archippus obsoleta*, Ft. Huachuca, Artillery Range area, Cochise Co., 3 Sept. (DP). 3rd state record for *Mestra amymone*, Sycamore Cyn., SANTA CRUZ CO., 19 Oct. (KH, Bob Rolly), previous records 34 yrs ago--30 Aug., 3 Sept. 1949, Pima Co.; *Marpesia petreus*, 4 mi ESE. Pine, GILA CO. & NORTH, 17 Aug. (GB) & Box Cyn., Pima Co., 18 Aug. (KH); *Asterocampa subpallida*, Florida Wash, Madera Cyn. Rd., Santa Cruz Co., 31 Aug. (DP); *Paramacera allyni* just emerging by 15 June, Rustler Park, Cochise Co. (CDF); *Oeneis alberta daura* very common above 9500', Escudilla Mtn., Apache Co., 13-14, 20 June (CDF).

MOTHS: SPHINGIDAE - *Manduca rustica*, *M. mucosa* (common), *M. florestan*, *Smerinthus saliceti*, *Pachysphinx occidentalis* & *Xylophanes falco*, Box Cyn., Pima Co., 29 July (ABC); Most of the above plus *Eumorphia typhon*, Guadalupe



1983 Season Summary



Cyn., Cochise Co., 29 July (ABC); *Ceratomia sonorensis*, *Manduca occulta*, *E. typhon* & some of above, Patagonia, Cochise Co., 31 July (TC, JT); *Sphinx separata*, *S. istar*, *S. dolli* plus some of the above, Copper Cyn., Cochise Co., 30 July (ABC); *Erinnyis ello* larvae on *Sapium biloculare* (Sic! - illegible), Darby Wells Rd. E. of Ajo, Pima Co., 2 Oct., emgd. Nov. (BG, KH); *E. obscura*, Tucson, Pima Co., 20 Jan. at lights (JB), unusual time, adults usually in Aug; *Proserpinus terlooii*, ova & larvae on *Boerhaavia coccinea*, Box Cyn., 29 July (ABC) & Patagonia, 31 July (TC, JT); [Many more Sphingidae (incl. *Eumorphia achemon*, *E. pandorus*, *Paonias myops*, *Erinnyis crameri* & *E. obscura*) reported from Cochise, Pima & Santa Cruz counties--contact JT, TC or others in the ABC for data]. SATURNIIDAE - *Hyalophora gloveri*, *Automeris pamina*, *Sphingicampa hubbardi*, *Citheronia splendens* (common) & *Eacles osleri*, Box Cyn., 28 July (ABC); *Eupackardia calleta* (♂ to ♀ 7:30-11 a.m.) & *Anisota osleri* (♂ to ♀ 9:30 a.m.), Box Cyn., 29 July (ABC); *Hemileuca hualpai*, 1st instar larvae on grasses, Hwy. 83 nr. Pima/S. Cruz Co. line, 29 July (ABC); *Automeris randa*, Guadalupe Cyn., Peloncillo Mtns., Cochise Co., 2 July, blacklight & ♂ to ♀♀ (MS) [larvae have been taken on several spp. of *Quercus*, Aug. thru Oct., 1982 (MS)]; *A. randa* & *A. pamina* larvae on *Celtis pallida*, Guad. Cyn., 17 Oct. (BG, KH); *A. randa*, *A. pamina*, *Agapema galbina anona*, *S. hubbardi* & *C. splendens*, Guad. Cyn., 29-30 July (ABC); *Agapema homogena*, 1st instar larvae on *Rhamnus californica*, Mt. Lemmon, Pima Co., 8 Aug. (TC, JT); *Coloradia luskii* common, Flagstaff, Coconino Co., 3 Aug. (SS); [Many more Saturniinae/Citheroniinae reported from Cochise, Pima & Santa Cruz Counties; contact those in the ABC if interested]. ARCTIIDAE - *Kodiosoma otero* larva on *Stephanomeria* sp., 5 mi. S. Superior, PINAL CO., 21 Feb. (MS)--only 3rd record for Arizona!; *Apantesis nevadensis*, Cave Creek Cyn., Cochise Co., 14-16 June (CDF); *Turuptiana permaculata* & *Phyllodesma americana*, Escudilla Mtn., at 9300', Apache Co., 20 June (CDF). NOCTUIDAE - *Chorizagrotis auxiliaris* & *Agrotis volubilis*, Escudilla Mtn., 20 June (CDF); *Catocala frederici*, Cave Creek Cyn., 14-16 June (CDF). PERICOPTINAE - *Daritis howardi*, Box Cyn., Pima Co., 28 July & Copper Cyn., Cochise Co., 30 July (ABC). NOTODONTIDAE - *Crinodes biedermani*, Miller Cyn., 3 Aug. & Hunter Cyn., 4 Aug., both Huachuca Mtns., Cochise Co. (GB). LASIOCAMPIDAE - *Gloveria arizonensis* ♂ very abundant (no ♀), 3-4 p.m., Miller Cyn., 3 Aug., Ash Cyn., 4 Aug. (GB); *G. arizonensis*, *G. gargamelle*, *Quadrina diazoma* & *Dicogaster coronada*, Copper Cyn., Cochise Co., 30 July (ABC) & the same 4 species extremely common, Copper Cyn., 3 Aug. (TC, JT); *Tolyte glenwoodii*, Cave Creek Cyn., 14-16 June (CDF); *Hypopacha grisea*, Escudilla Mtn. at 9300', 20 June (CDF). GEOMETRIDAE - *Stenoporpia dionaria*, *Sabulodes huachuca*, *Nepytia swetti* & *Snowia montanaria*, Cave Creek Cyn., 14-16 June (CDF).

NEVADA. Recorded for the butterflies are ONE new STATE record & 58 COUNTY records by GA, plus 2 by RDR. Only the more noteworthy are outlined below. Nevada had a wet winter, a wet, cool and late spring, with considerable summer rainfall (GA). The season was late, with *Speyeria* not in numbers until Aug. Some 70 species recorded from the eastern, Great Basin area of Nevada in Sept. (GA), and at least 21 species in Clark & Lincoln counties in mid-Oct. (RDR).

MIGRATORY SPECIES: *Polygonus leo* strayed northward to nearly the "North Pole" in Elko Co. in 1983. Specifics; Corn Cr., Clark Co., 2 Sept. (4th state record--GA); US 93A, 16 mi N. White Pine Co. line, 5 Sept. & S. end Pilot Mtns., 6 Sept., ELKO CO. & NORTH; Duckwater & Railroad Valley, 10 Sept., 1.2 mi N. Beatty, 17 Sept., all NYE CO.; Bowman Creek, Toiyabe Mtns., LANDER CO., 12 Sept. (all GA). *Phoebis sennae marcellina*, Sunrise Park, Las Vegas, Clark Co., 21 June (RR) & Bardoli Ranch, Quinn Canyon Range, NYE CO. & NORTH, 11 Aug. (GA). *Libytheana bachmanii*, Clark Co., 31 Aug. (GA). *Euptoieta claudia*, Sunnyside, NYE CO., 12 Aug. (GA). [The above 4 species are considered northly strays from populations further south--rather than movements in large, migratory numbers.] *Vanessa cardui*; Huge spring movements, virtually swarming in most of Nevada in May & early June (GA); very abundant in southern third of state in Aug. & Sept. (GA); 36 observed near Panaca, Lincoln Co., 12 Oct. (RDR) & abundant at Pahrnatag Nat'l Wildlife Refuge near Alamo, Lincoln Co., 13 Oct. (RDR). *Danaus plexippus*; No notable concentrations (GA), but fairly common near Panaca, 12 Oct. & several at Pahrnatag, 13 Oct. (RDR).

BUTTERFLIES: *E. funeralis*, 1.5 mi S. Springdale, NYE CO. & NORTH, 17 Sept. (GA)--1st record out of Clark Co; *P. scriptura*, Railroad Pass, Clark Co., 21 Feb., EARLY (GA)--28 March previously; *P. communis* & *H. ericetorum*, Pahrnatag NWR, 13 Oct., both LATE (RDR); Nominate *P. libya*, Ash Meadows, NYE CO., 9 June (GA)--previous Nye Co. *libya* were *lena* from further north; *P. alpheus oricus*, Tempiute, LINCOLN CO., 29 May (GA); *P. eunus alinea*, 1.5 mi S. Springdale, 12, 17 Sept., Ash Mtns., 16 Sept. & 1 mi N. Beatty, 17 Sept., all NYE COUNTY (GA)--also new STATE records as previous *eunus* were different phenotypes from further north (Carson City, Churchill, Lyon & Washoe counties); *H. uncus lasus*, US 93, Geysers Ranch, Lake Valley, LINCOLN CO., 26 July (GA); Very pallid *P. sabuleti* populations from NYE CO. & EUREKA CO., Aug.-Sept. (GA); Newly discovered colonies of *O. yuma* in Lincoln & Nye counties (GA); *P. indra*, Indian Cr., White Mtns., ESERALDA CO., 18 June & Dunlap Cyn., Pilot Mtns., MINERAL CO., 18-19 June (GA); *N. menapia*, 2 mi W. Pequop Summit, ELKO CO., 5 Sept. & Roberts Cr., EUREKA CO., 8 Sept. (GA); *Colias philodice* & *eurytheme*, near Panaca, Lincoln Co., 12 Oct., both LATE (RDR); *E. hellioides*, near Panaca, 12 Oct. & Pahrnatag NWR, 13 Oct., LINCOLN CO., (RDR); *H. titus immaculosus*, Anderson Cyn., Highland Range, Lincoln Co., SOUTH, 25 July, 3 Sept. & Newark Cyn., Diamond Mtns., EUREKA CO., 9 Sept. (GA); *M. leda*, US 93, Coyote Springs, LINCOLN CO., 8 June & Strozzi Ranch, Grapevine Mtns., Nye Co., 9 Aug.--NORTH of usual range and foodplant (GA); *M. spinetorum*, Wilson Creek Range, LINCOLN CO., 30 May (GA); *M. siva*, Cold Cr., Spring Range, Clark Co., 2 Sept., LATE (GA); *H. ceraunus gyas*, US 93, 1.4 mi N. Lincoln Co. line, WHITE PINE CO., 26 July & 4 mi E. Cherry Cr. Summit, Nye Co., NORTH, 11 Aug. (GA); *H. isola alce*, Railroad Pass, Clark Co., 21 Feb., EARLY, plus ELKO CO. (July), EUREKA CO. & LYON CO. (Sept.), LATE (GA); Nominate *E. enoptes* new for LYON CO. & STOREY CO., 19 July--previous records were of *ancilla* (GA); *E. rita pallescens*, Fish Lake Valley, ESERALDA CO., 29 Aug. (GA); *A. mormo*, near Eureka, EUREKA CO., 9 Sept. (GA) & Pahrnatag NWR, 13 Oct., LATE (RDR); *A. palmerii*, US 93, Coyote Springs, LINCOLN CO., 8 June (GA); *S. cybele leto*, Davis Creek Park, Washoe Co., 18 July, 26 Aug. (GA); *S. nokomis apachena*, LINCOLN CO., 25 July, 3 Sept., plus new colonies in Nye & Washoe counties (GA has details); *Chlosyne californica*, Elgin-Carp Rd., Mormon Mtns., LINCOLN CO., 5 June (GA); *C. lacinia*, Overton State Game Mgmt. Area, Lake Mead, Clark Co., 16 Oct., LATE (RDR); *C. "palla" vallismortis*, rd. to Mt. Stirling, Spring Mtns., NYE CO., 10 June (GA); *P. tharos (pascoensis?)*, Steptoe Valley, WHITE PINE CO., 26 July (GA)--2nd state record, 1st was in Elko Co; Expanding distribution for *J. coenia* as new from ELKO, ESERALDA, EUREKA, LANDER & PERSHING COUNTIES (GA has data), also new for LINCOLN CO., 12, 13 Oct. (RDR); *C. oetus* nr. *pallescens*, Big Smoky Valley, Nye Co., 10 Aug. (GA)--1st location outside the Reese River Valley; *D. gilippus strigosus*, Indian Cr., White Mtns., ESERALDA CO., 18 June & O'Neil Basin, ELKO CO. & NORTH for Nevada, 7 Sept. (GA).

MOTHS: Blacklighting for about 70 nights throughout the state by GA with over 800 species taken. Most remain undetermined, but since Nevada moths are so poorly known, two families are hereby officially recorded. SPHINGIDAE - *Manduca quinquemaculata*, *Sphinx chersis*, *S. vashti*, *S. asella*, *S. drupiferarum*, *S. dollii*, *Smerinthus cerisyi*, *Pachysphinx occidentalis*, *Erinnyis ello*, *Eumorphia achemon* & *Hyles lineata* (all GA). SATURNIIDAE - *Hyalophora gloveri*, *Coloradia doris*, *Hemileuca eglanterina* & *H. hera* (all GA).

CALIFORNIA. Considerable good moth data, but no COUNTY records or definite range extension could be determined. Northerly migrations of unusual butterflies (*Polygonus*, *Zerene*, *Phoebis*) combined with the circulation of Ray Stanford county lists resulted in an even 40 COUNTY records! Most range extensions were definitely NORTH, but some to the SOUTH and EAST. For the second consecutive winter, most stations in northern California had twice normal rainfall. The Sierra

Nevada again had a very heavy and lingering snowpack, resulting in many very LATE records. Snowmelt was the latest of modern times, with much remaining by the onset of heavy Nov. and Dec. storms. Southern Calif. also with above normal winter precipitation, combined with the fringes of tropical SUMMER storms--the probable cause of the many northerly migrants and strays.

MIGRATORY SPECIES: P. leo, Cantil, 25 Aug., 23 Sept. & Cinco, 23 Sept., both Kern Co.--edges of alfalfa fields after tropical storms, many quite fresh (KD); Round Valley, 4500', (Rock Cr. Rd. 2 mi N. of Pine Cr. Rd.), INYO CO., 26 Aug. (EM, SM)--within a mile of Mono Co., NORTH for Calif; Camp Inyo, 2 mi SW. Big Pine, 27 Aug. (RK). Z. cesonia, Cuyama R. at Hwy. 166, SAN LUIS OBISPO CO., 28 May (KD); nr. L. Isabella, 6 June & Cinco, 24 June, Kern Co., (KD); Jerseydale, MARIPOSA CO. & NORTH, 15 Sept. (OS). P. sennae marcellina, earliest reported for season was 23 Apr., Hamilton Cr., 4500', San Jacinto Mtns., Riverside Co. (JE); numerous 8-12 mi N. Johannesburg, Kern Co., Barstow & Halloran Springs, S. Bdn. Co., all on 17 June (RR); Bakersfield, found sparingly in June & July (KD); Cinco & Cantil, hundreds seen in desert (lots of Cassia) and in alfalfa fields, 4 dates June, July, but less common 4 days in Aug. & Sept. (KD)--400 on 24 June alone!; Jawbone Cyn., Mojave, etc., north to near Inyo Co. Line (KD); Westgard Pass & entrance to Bristlecone Pines, White Mtns., INYO CO., 24 June (RR); a single fresh ♂ Eshom Cpgd., TULARE CO., 9 July (KD); a ragged ♂ Five Dot Ranch, 16 mi N. Susanville, LASSEN CO. & NORTH, 12 Aug. (AS); 7 at Arroyo Grande, 14 Sept. & 5 more Baywood Park, NORTH, 6 Oct., both SAN LUIS OBISPO CO. (WS)--furthest NORTH for coastal Calif. in almost 2 decades [published by J. W. Tilden, 1968 for San Francisco & observed to breed in San Jose]; fairly common Providence Mtns., S. Bdn. Co., 27 Sept., 9 Oct. (WD); still around Venture on 3 Nov. (TD); last seen 15 Dec., 7 mi SE. Santa Maria, Santa Barbara Co. (WS). Nymphalis californica, hibernants common Jerseydale & Briceburg, Mariposa Co., mid-Feb., scarce rest of year (OS); sporadic in Sierra Nevada of Tulare Co., 18 June, 13 July (KD); Aliso County Park, SANTA BARBARA CO., 10 June (KD). V. cardui, first seen flying thru Ventura 29 Mar., abundant 30 Mar. traveling NW. 8-20' above ground, 40/min. across a 50 yd. transect (TD); a melanic cardui, Jerseydale, 13 June (OS); an enormous cardui year--immigrants in Davis, Yolo Co. by 13 Apr. (AS), peaking 21 Apr., but still arriving well into May; Present in numbers & breeding all summer in the Central Valley (AS); common & fresh 8 mi SSW. Benton Hot Springs, Mono Co., 17 June (OS, R. Wells); small NW. migration N. slope Mt. Dana, Mono Co., 25 Aug. (M. Douglas, OS); Glacier Cyn, 10,500', 25 Aug. (RLL, DP); extremely numerous, ridge E. of Jerseydale, 14 Oct. (OS); mass southward movement, mtns. late Oct., continuing in Valley into early Dec. (AS); worn migrants appeared in San Bruno Mtns., San Mateo Co., 7 Apr., very common through May, fresh adults early June, in numbers summer-fall, fresh in Nov., last noted 12 Dec. (RLL); many larvae on thistles (mostly Italian), but oviposition, some larvae webbing up Lupinus albilfrons, arboreus & formosus, SBM (RLL). D. plexippus timing normal, flight unremarkable, except huge aggregation (5000+) around Bodega Marine Lab., Sonoma Co., 21 Sept. (AS); adults, all early stages on milkweed, Providence Mtns., 27 Sept., 2 Oct. (WD); reduced numbers in Bay Area, but moderate in Oct., scarce in Nov. with early heavy rains--last noted 5 Dec. (RLL); one at Donner Pass, 7000', 26 Oct., very LATE for this high--did it make the coast? (AS)

BUTTERFLIES: T. mexicana nevada still flying 4 Aug., LATE at Donner Pass, 7000', Nevada Co. (AS) & fresh, Glacier Cyn., 10,500', Mono Co., 25 Aug., very LATE (RLL, DP); E. persius, 1 mi W. Susanville, LASSEN CO., 21 May (LC); P. scriptura, Bethel Island, C. Costa Co., 1 Oct., LATE (RLL, FJP); P. catullus, 2-3 mi S. Johnsondale, TULARE CO., 6 June (KD) & Davis, Yolo Co., 5 Nov., LATEST ever (AS); P. libya, Hwy. 166 up to 1 mi W. of Kern Co. line, SAN LUIS OBISPO CO., 28 May, 10 June common & common along Kern R. at Hart Park, Bakersfield, 21 June (KD); C. aurantiaca, ridge above Walker Pass, 5250'-6000', Kern Co., 21 May (SM) & 7.8 mi E. of Johnsondale on rd. to Big Meadow, TULARE CO., 18 June (AR); P. eunus, 2 mi S. Benton 5300', Mono Co., 19 May, in wash with Distichlis spicata (SM), Cartago, Owens Dry Lake (ODL), Inyo Co., 26 Aug. (RHL), shore of ODL, 28 Aug. (AR); P. eunus alinea, Mojave R. 1 mi E. Harvard Rd., 1730', S. Bdn. Co., 14 Sept. (JE); H. lindseyi, Aliso County Park, SANTA BARBARA CO., 10 June (KD); P. sonora siris, Bell Cr. Crossing, 2 air mi. SE. of Butte Mdws., BUTTE CO. & EAST, 12 Sept. (SM)--[A far inland record in the same county where RLL (and possibly others) have found nominate sonora!]; Euphyes ruricola (= vestris), Plumas, Shasta & Siskiyou Counties (SM has data) & near Gazelle, Sisk. Co., 9 Aug. (AS); One L. eufala, Bodega Head, Sonoma Co., 20 Sept. (AS)--very scarce on coast of No. Calif., but 1♂ Bodega Head, 7 Sept. '70 (RLL); P. errans, Playa Del Rey, Los Angeles Co., 19 June (RHL); P. clodius baldur common, Mt. Shasta at 7180', 11 Sept., Mt. Eddy at 7000', 13 Sept. & common Caribou Lakes, Trinity Alps, 14 Sept., all LATE (WD), first seen at Donner Pass, 7000' on 14 Sept., then quickly became common (AS); P. phoebus sternitzkyi, Mt. Eddy, 8500'-9000', 13 Sept. & Caribou Lakes, 14 Sept., LATE (WD); Nominat B. p. philenor, Jerseydale, MARIPOSA CO. & NORTH for Calif., 12 July (OS); B. philenor hirsuta stray in Chester, Plumas Co., 21 Sept. (LC), 14 larvae on Aristolochia in backyard--first time in 21 years!--Modesto, STANISLAUS CO., 15 Oct. (JM); P. zelicaon common Ventura, 12 Jan., very EARLY (AS) & adults, ALL early stages, Hwy. 1 S. of Newport Beach, Orange Co., 23 Dec., LATE (WD); P. indra pergamus, Pyramid Peak, San Jacinto Mtns., Riverside Co., 6 June (JE); P. multicaudatus, South Yuba R. 2 mi. NE. Washington, NEVADA CO., 28 May (RLL, DP); P. napi microstriata, Rail Road Flat, 2600', CALAVERAS CO., 16 Apr. (RS); E. ausonides, Santa Fe Grade Rd. 5 mi. S. Mendota, WEST, Fresno Co., 9 Mar. (WS)--previous Co. records from Sierra Nevada; A. cethura morrisoni, Hwy. 33, 1 mi. N. Belridge, Kern Co., 8 Mar. (WS)--NORTH for west side of S. J. Valley & Quatal Cyn., 4000', 5 mi E. Hwy. 33, VENTURA CO., 14 Apr. (WS); A. sara on Valley floor, Hart Park, Bakersfield, 23 Apr. (KD); F. lanceolata australis, Owls Barn, Ventura Co., 7 May (KD)--2nd. published location--1st. in Quatal Cyn., 1981 (WS); C. harfordii, Pinyon Crest, Riverside Co., 22-23 Oct., LATE (RHL); C. occidentalis chrysomelas, N. rim Grindstone Cyn., 4500', on Covelo Rd., TEHAMA CO., 26 June (SM); C. alexandra, Mono Lake County Park, Mono Co., 28 Aug. (RR)--det. certain among other Colias present; 1♀ Z. eurydice on Valley floor, Rancho Cordova, Sacramento Co., 7 Apr. (AS) & Jerseydale, 15 Sept., 21 Oct., LATE (OS); E. mexicana, Sunrise Hwy. at 5320', Laguna Mtns., San Diego Co., 5 June (TD); E. nicippe, Surprise Cyn., Panamint Mtns., Inyo Co., 28 July (JE, OS), 7 mi SE. Santa Maria, Sta. Barb. Co., 20 July to 13 Sept. (WS), common Bonanza King Mine Cyn., Providence Mtns., 27 Sept., 2, 9 Oct. (WD); N. iole, Wildrose Cyn., Panamint Mtns., Inyo Co., 31 May (RS), Cinco, 24 June & Cantil, 4 July, Kern Co. (KD), Panamint City, Inyo Co., 29 July (JE, OS), common along San Joaquin R. 4 mi S. Stevenson, MERCED CO., 22 Oct. (JM), S. of Palm Desert, Riv. Co., 26 Dec., LATE (JE); T. arota virginensis, Coso Range, Inyo Co., 1 Aug. (JE); L. xanthoides common, Cuyama R. at Hwy. 166, SAN LUIS OBISPO CO., 28 May, 10 June (KD) & Cuyama R. at Foothill Rd., SANTA BARBARA CO., common on 10 June (KD); L. editha, 2 air mi SE. Butte Mdws., 5500', BUTTE CO., 12 Sept. (SM); L. mariposa, NW. of Grouse Ridge Cpgd., 6900', Nevada Co., 4 Sept. (AL); Lighter than nominate H. grunus, Nine Mile Cyn., INYO CO., common 26 Aug. (KD) & possible stray on U.C. Davis campus, YOLO CO., 2 July (RK); S. tetra, 5 mi W. Susanville, LASSEN CO., 13 Aug. (LC); M. leda, Sweetwater Spr., 4700', Ord Mtn. SE. Barstow, S. Bdn. Co., WEST, 25 July with fresh adults of C. comstocki, summer brood (JE); C. dumetorum, 1 mi. W. Susanville, NORTH for Calif., 21 May (LC); M. spinetorum, Big Bear City, S. Bdn. Co., 30 May & Wildrose Cyn., Inyo Co., 31 May (RS); M. spinetorum & M. johnsoni, Loch Lomond, 3000', both new for LAKE CO., 2 Aug., both LATE for Coast Range (RK, AS); M. johnsoni scarce, Jerseydale, 4-17 Aug., very LATE (OS); M. siva, Surprise Cyn., Panamint Mtns., 28 July, LATE (JE, OS); I. augustus iroides, 1 mi. W. Susanville, LASSEN CO., 14 May (LC); I. mossii windi, Nevada & Placer Cos., 3800' (worn) to 5200' (fresh), 28 May (RLL, DP) and Bear Valley, 7100' & Mt. Reba, 7800', Alpine Co., 28 June (JM); S. columella istapa ♀♀ ovip. on Hibiscus denudatus, S. of Palm Desert, Riv. Co., 28 Sept. (JE); 16 species on 12 Jan., Ventura, incl. B. exilis (abundant), L. marina & I. acmon, all EARLY (AS), however exilis 4 months LATE--4 Sept., Suisun Marsh, Solano Co. & at 5000', Sierraville, 21 Sept., LATE (AS); H. ceraunus gyas, near

Lamont Peak, TULARE CO., 6 July & further NORTH at Freeman Cr., 16 July (KD); *H. isola alce*, 2-3 mi S. Johnsondale, TULARE CO., 6 June & data as for *gyas* on 6 July (KD); For *gyas* & *alce* in Inyo, Kern & Mono Cos., KD, JE, RK, RLL, EM, SM, DP & OS have 1983 data. *E. comyntas*, near Gazelle, SISKIYOU CO. NORTH & EAST for Calif., 9 Aug. (AS)--Dornfield, 1980, mapped it only for western Oregon and not recorded for Nevada by Harjes, 1980; Very fresh *E. battoides baueri*, Spring Cyn. Cr., 5300', 2 mi S. Benton, Mono Co., 19 May (SM). *E. enoptes tildeni* topotypes, Del Puerto Cyn., Stanislaus Co., fresh/worn 8 Oct., LATE (RLL, FJP); *G. lygdamus nr. oro*, Wildrose Cyn., Panamint Mtns., 31 May (RS); *G. piassus*, Lamont Mtns., 5000', Tulare Co., 20-21 May (SM) & Big Bear City, S. Bdn. Co., 30 May (RS); *L. idas anna*, Quaking Aspen, Tulare Co., 3 Sept., LATE (KD) & vic. Carr Mine, Butte Co., 18 Sept., LATE (CH, EM, SM); *L. idas nr. ricei*, Shovel Cr. at upper crossing, 4500'-5000', Siskiyou Co., 4 July (EM, SM), 9 July (KH); *P. emigdionis*, Cuyama R. at Hwy. 166, SAN LUIS OBISPO CO., common 28 May, 10 June (KD), Big Bear City, 30 May (RS) & NW. of Victorville, 29 Aug., LATE (DP), both S. Bdn. Co.; *L. lupini*, High Lakes area vic. Carr Mine, 6500', BUTTE CO., 18 Sept. (CH, EM, SM); *L. lupini monticola* adults assoc/w *Eriogonum wrightii*, Pyramid Peak, Riv. Co., 6 June (JE); *L. lupini chlorina*, Nine Mile Cyn., INYO CO., 6 July (KD); *C. wrightii*, Whipple Mtns. at 2000', S. Bdn. Co., 20 Mar. & 29 Palms Hwy. W. of Desert Hot Springs, Riv. Co., 26 Dec., very LATE (JE); *A. mormo cythera*, ridges above Walker Pass, Kern Co., 21 May--spring brood (SM) & 0.9 air mi NE. Upper Centennial Spr., Coso Range, Inyo Co., EAST, 1 Aug. (JE); *A. vanillae incarnata*, Ventura, 12 Jan. (AS) & city of San Luis Obispo, 6 Oct. (WS); *S. callippe liliana*, Rockville Hills Park, Solano Co., 5 June (RS); *S. zerene conchyliata*, *S. egleis oweni* & *S. atlantis dodgei* (the rarity), Little Shasta Mdw. & *S. hydaspe purpurascens*, 1 mi W. Sisk. Co., 7 Sept. (RK, AS); Partial melanic of *S. hydaspe*, Jerseydale, 9 July (OS); *P. mylitta ova* on *Mimulus guttatus*, reared to adults on *M. g.*, NNW of Pyramid Peak, Riv. Co., 26 June (JE), adults, larvae all instars on *Cirsium* sp. middle of Mojave Desert in mid-summer!--N. slope Ord Mtn., SE Barstow, 25 July (JE); *T. leanira wrightii* abundant & *C. gabbii*, Ord Mtns., S. of Apple Valley, S. Bdn. Co., 21 May (TD) & near *wrightii* also abundant, 2-3 mi S. Johnsondale, Tulare Co., 6 June (KD) with *E. editha*--possibly NORTH for nominate ssp; *E. editha monoensis*, 4 mi S. Markleeville, Alpine Co. & Slinkard Cr., Mono Co., 27 Aug., LATE (JM); *E. editha nubigena*, Glacier Cyn., 10,500', NE. slope Mt. Dana, 25 Aug., very LATE (RLL, DP)--peaking by 5 July in 1981, same spot (RLL); *E. anicia wheeleri* pre-diapause larvae on *Penstemon bridgesi* & *Castilleja chromosa*, Cerro Gordo, Inyo Mtns., 30 July (JE); *P. faunus rusticus*, last instar larvae on Azalea, 6 June, 3 mi W. Squaw Cr., Shasta Co., emgd. late June (KH); Larvae of *rusticus* and *P. zephyrus* on *Rhododendron occidentale*, Big Trees Park, Calaveras Co., 4 June (EM, SM)--*zephyrus* also ovipositing on this host--both spp. reared to adults; *N. milberti furcillata*, one at Rancho Cordova, Sacto. Co., 21 Feb. & by the hundreds Ball Mtn. W. of Mt. Shasta, 10-11 Aug. (AS), White Mtns., 10,000', Inyo Co. near Mono Co. line, 28 Aug. (RK), common Donner Pass/Castle Peak late Aug.-26 Oct. (AS); *V. annabella* ab. "muelleri", Hwy. 1, S. of Newport Beach, Orange Co., 23 Dec. (WD); *B. lorquini*, Ventura River at 220', Ventura Co., foodplants determined as *Salix lasiolepis*, *S. lasiandra* & *Populus trichocarpa*, July-Sept. (TD); *B. lorquini burrissoni*, Hwy. 1, 1 mi S. of Westport, Mendocino Co., 23 June (SM)--[Possible STATE, COUNTY & SOUTH records for this ssp; RLL Has found nominate *lorquini* further north & Dornfield, 1980, records it in southernmost Oregon.]; *A. bredowii californica*, Nine Mile Cyn., INYO CO., common 4, 6 July, 26 Aug. (KD)--almost all records on west slopes & Coast Ranges (RLL); Densest pops. of *N. ridingsii* ever seen in Calif., Carson Pass, 9000'-10,500', Alpine/Eldorado Counties, 1 Aug. (AS); *O. ivallda*, Saddlebag Lake, 10,000', Mono Co., 16 Sept., very LATE (WD)--in same area, worn by 28 June in 1981 (RLL); *O. nevadensis* good numbers in ODD YEAR, 4 mi NE. Chester, Plumas Co., 15 July (LC); *O. chryxus stanislaus* very common in pine forest, Sweetwater Range, 9500', Mono Co., 23 July (JM); *D. gilippus strigosus*, Coffee Camp E. of Porterville, 13 July & Freeman Creek, 16 July, both TULARE CO. (KD).

MOTHS: SPHINGIDAE - *Smerinthus cerisyi*, *Pachysphinx occidentalis* & *Hyles lineata*, Camp Inyo, 2 mi SW. Big Pine, Inyo Co., 26-28 Aug. (many blacklighters at Lep. Soc. meeting); *Erinnyis ello*, Camp Inyo, 26 Aug. (RLL) & Ventura, 6 Sept. (TD); *Hemaris senta*, Wildrose Cyn., Panamint Mtns., Inyo Co., 31 May (RS). SATURNIIDAE - *Hyalophora euryalis* emgd. May-June, San Bruno Mtns.--cocoons coll. fall-winter only on *Rhamnus californica*, none on *Ceanothus* or *Salix* abundant in SBM (RLL). ARCTIIDAE - *Arachnis picta*, Redwood City, San Mateo Co., 16 Oct. (DP) & common San Bruno Mtns., 21 Sept.-20 Oct. (RLL). NOCTUIDAE - *Agrotis venerabilis*, San Bruno Mtns. at 1300', 18 Oct. (RLL); *A. venerabilis* (?) dark, not "arida" & *Scotogramma fieldi*, Pala, 800', San Diego Co., 5 Nov. (RHL); *Copialepharon canariana*, Tom's Place, 7200', Mono Co., 28 Aug. (RHL); 87 noctuids incl. 21 of new sp. of *Hadeninae*, plus *Nola involuta* (formerly *Nolidae*, now *Noctuidae*), Pala, 15 Jan. (RHL); *Lacinipolia leucogramma*, Aguanga, Riverside Co., 22 Oct. (RHL); *L. franciscana*, SBM, Oct.-Nov. (RLL); *L. strigicollis*, *L. tricornuta* & *Oncocnemis obscurata*, Camp Inyo, Big Pine, 26-27 Aug. (RHL); *Leucania februalis*, Aguanga & Pala, both 5 Nov. & EARLY (RHL); *Feralia februalis*, SBM, 17 Jan., EARLY for No. Calif. (RLL); *Dryotype opina*, Sept.-Nov. & *Papaipema harrisi*, Sept.-Oct., SBM (RLL); *Catocala hermia*, Camp Inyo, 26-27 Aug. (RHL); A day-flying ♂ *Ostema odora*, 2 p.m., 8 Aug., South Slope, SBM (V. Harris, RLL); *Hyponodes* n. sp. near *caducus*, Pala, 5 Nov. (RHL). GEOMETRIDAE - *Paraptera danbyi*, Spring Mtn. WNW of St. Helena, Napa Co., 29 Dec. (RHL); 68 geometrids incl. *Stammnodes rickseckeri*, Pala, 800', San Diego Co., 15 Jan. (RHL); *Entephria nr. takuata*, Tom's Place, 7200', Mono Co., 28 Aug. (RHL); *Fernaldella fimetaria*, Camp Inyo, 27 Aug. (RLL); *Tornos erectarius fieldi*, Aguanga, Riv. Co., 5 Nov. (RHL); *Palaeacrita longiciliata*, San Bruno Mtns., Jan.-Feb., but most numerous Dec. (RLL); *Hesperumia fumosaria*, Pinyon Crest, Riv. Co., 28-30 May (RHL); *Synaxis mosesianai* Sala, Pala, 5 Nov. (RHL). PYRALIDAE - Mature larvae of *Uresepitha reversalis* on Scotch Broom, SBM, Sept. 83, Jan. 84, adults Nov.-Dec.-Jan. (RLL). OLETHREUTINAE - *Eucosma ridingsana*, SBM, 31 Aug., 6 Sept; *Grapholita lunatana* assoc/w 3 spp. of *Lupinus*, SBM, adults 3 Jan.-7 April; *G. edwardsiana* larvae in stems, adults on *Lupinus arboreus*, 7 separate colonies in SBM, adults 31 Mar.-16 June; on *arboreus* at Apanolio Cyn. & Ox Mtn. landfill area, San Mateo Co., 20 May (all RLL). ELACHISTIDAE - 34 *Coelopoeta baldella* (?), Bob's Gap SE. of Pearblossom, Los Angeles Co., 5 June (RHL).

ZONE 2 PACIFIC NORTHWEST: OREGON, IDAHO, WASHINGTON, BRITISH COLUMBIA. Coordinator: J. H. Shepard (JHS). Contributors: F. Austin (FA), J. Austin (JA), S. J. Collman (SJC), R. L. Crawford (RC), S. Doonan (SD), P. R. Ehrlich (PRE), D. L. Eiler (DLE), R. J. Ekin (RJE), S. Fujikawa (SF), C. S. Guppy (CSG), J. Hinchliff (JH), B. Kirk (BK), D. Knight (DK), M. Lucian (ML), A. F. Ludtke (AL), C. E. Maxwell (CEM), J. Macavoy (JM), D. Murphy (DM), Ann Musche (AM), J. A. Parson (JAP), J. P. Pearson (JPP), J. P. Pelham (JP), T. S. Pelham (TP), A. M. Peterson (AMP), J. B. Peterson (JBP), M. A. Peterson (MAP), T. M. Pike (TMP), R. M. Pyle (RP), Alan Richards (AR), C. M. Senger (CS), F. Sperling (FS), D. L. Threatful (DT), R. Ullrich (RU). General Collecting Conditions: despite another wet July collecting was excellent for all areas reported. County or District records designated by the name or the word capitalized. State or Province records and range extensions by STATE, PROVINCE, NORTH, SOUTH, etc.

MIGRATORY SPECIES: BRITISH COLUMBIA; *Nymphalis vau-album* is listed here as a migratory species even though no unidirectional movement was observed. It was present in the S.E. area of B.C. in numbers up to 1000/linear kilometer of road (CSG). (This is approximately the same density as JHS remembers for the spectacular outbreak of *N. californica* in the late 1950's.) The observed boundaries of this outbreak were; 10 km. S. of Alemon, Aug. 26, numerous (FS); Nelson, Aug. 9, abundant (JHS); S. end of Hunters Range, E. of Salmon Arm, August, 500-1000/km. of rd. (CSG); Cherryville, Aug. 10, abundant (JHS); It is significant that it was recorded at Moses Meadows, in Okanogan Co., Wash., where it is not consistently recorded, Aug. 21 (JP, JPP). *V. cardui* recorded as common in the B.C. Okanogan all summer with worn

individuals May/June and fresh specimens by July (CSG); Similar observations in the Creston area with a strong northern migration across the Canal Flats in the second half of May (DK); Numerous at Moyie, S. of Cranbrook, Aug. 28 and Mt. Robson Prov. Park, Aug. 26 (FS); Present at Mt. Begbie, S. of Revelstoke, Aug. 7 (DT) and at Terrace, Aug. 20 (JHS). V. annabella fresh and common in B.C. Okanogan in Aug. (CSG); Found with V. cardui at Creston as noted above but not as common (DK). WASHINGTON; V. cardui recorded in GRAYS HARBOR CO., Montesano, Aug. 17 (SC); ISLAND CO., Fort Casey, Aug. 20 (SC); LINCOLN CO., Irby at Crab Creek, July 30 (MAP, JP, JPP); SKAMANIA CO.; Butte Camp, Mt. St. Helens, Aug. 25 (MAP); Okanogan Co., Boulder Cr. Rd., June 25, ovipositing on Lupinus latifolia var. subalpinus (Piper & Robins) (MAP, JP, JPP, JA). V. annabella, GRANT CO., Rocky Ford Creek at Hwy. 17, July 31 (MAP, JP, JPP); Okanogan Co., Methow R., el. 1484', July 20, ova on Malva pariflora L. (MAP, JPP); THURSTON CO., Scatter Creek at Hwy. I-5, Aug. 23 (JP). V. atalanta from LINCOLN CO., Sullivan L., July 30, larva on Urtica dioica gracilis var. holosericea (Nutt.) (MAP, JP, JPP). IDAHO; V. cardui, Canyon Co., N. of Nampa, Aug. 10 (DLE). V. atalanta, CANYON CO., nr. Lake Lowell Reservoir, Aug. 13 (DLE). D. plexippus only from Idaho, Canyon Co., nr. Lake Lowell Reservoir, Aug. 13 (DLE).

OREGON. BUTTERFLIES: BAKER CO., Snake R. rd., 21 mi. S. Richland, May 30 (JH) P. pallida barnesi; Douglas Co., Hwy. 136, 6 mi. ESE of Toketee Falls, el. 3200', July 15 (AL) P. oreas silenus; Harney Co., W. side of Alvord Desert, 5 mi. NE of Andrews, May 28 (JH) E. anicia maceyi, T. leanira alma relatively common; JACKSON CO., Casey State Park, 18 mi. S. Prospect, June 13 (RJE) L. melissa; LANE CO., W. of Veneta, March 19 & April 6 (RU) P. oreas silenus; April 29 (RU) I. eryphon; SHERMAN CO., Deschutes R. access rd., N. of Sherar's Bridge, Sept. 3 (RU) L. archippus; UMATILLA CO., 1½ mi. E. Lehman Springs, el. 4350', June 1982 (JM) C. bellona STATE record; May 29 (RU) C. bellona; July 10 (RU) O. editha edithana.

IDAHO. BUTTERFLIES: Blaine Co., Hwy. 20 at Carey, Aug. 8 (DLE) P. communis & O. sylvanoides both COUNTY, H. comma harpalus, P. beckerii, P. protodice, A. rapae, P. mylitta COUNTY, C. oetus charon; Camas Co., Hwy. 20, 4 mi. W. of Blaine Co. line, Aug. 8 (DLE) P. communis, P. beckerii, C. philodice COUNTY, E. helloides COUNTY, C. oetus charon; Canyon Co., nr. Lake Lowell Reservoir, Aug. 13 (DLE) E. clarus, P. communis COUNTY, P. cattulus COUNTY, P. rutulus, P. protodice COUNTY, P. occidentalis, A. rapae, C. philodice, C. eurytheme, E. helloides COUNTY, S. melinus COUNTY, L. melissa COUNTY, B. archippus, C. pegala boopis; CANYON CO., N. of Nampa, Aug. 13 (DLE) P. mylitta; Caribou Co., SR-34, 6 mi. N. of Soda Springs, el. 6000', Aug. 16 (DLE) O. sylvanoides COUNTY, P. protodice COUNTY, P. occidentalis COUNTY, A. rapae, C. pegala boopis; Elmore Co., Hwy. 20, 2 mi. W. of Camas Co. line, Aug. 8 (DLE) H. comma harpalus, H. titus COUNTY, S. saepium COUNTY, S. zereene, B. lorquini, C. pegala boopis, C. oetus charon; GOODING CO., Hwy. I-84, W. of Bliss, Aug. 15 (DLE) P. beckerii.

MOTHS: BLAINE CO., Jct. Hwys. 20 & SR-75, Aug. 8 (DLE) Arctia caja utahensis.

WASHINGTON. BUTTERFLIES: Chelan Co., Swakane Cyn., May 30 (RP) P. saepiolus associated with the local endemic Trifolium thompsonii for nectar and larval food plant; COWLITZ CO., Beaver Bay Camp, May 20 (RC) P. oreas; Clark Co., Vancouver, Nov. 12 (RP) C. eurytheme fm. alba LATE; FRANKLIN CO., Lyons Ferry St. Park, Sept. 3 (BK) O. sylvanoides, Palouse Falls St. Park, Sept. 3 (BK) H. ericetorum; GARFIELD CO., Clearwater Lookout, el. 5500', Sept. 4 (BK) N. menapia; GRANT CO., Pinto Dam, July 30 (MAP, JPP, JP), C. alexandra edwardsii, C. sthenele; Rocky Ford Crk at St. Hwy 17, July 31 (MAP, JPP, JP), Poanes sabuleti and P. tharos; GRAYS HARBOR CO., Blockhouse Rd., Malone, April 4 (RP) N. antiopa; JEFFERSON CO., Hwy. from Quilcene to Hwy. 104, May 28 (JPP, MAP) P. rutulus; King Co., Highpoint Hwy., June 21 (JPP) E. vestris COUNTY, Seattle, Pikes Street Market, Oct. 14 (RP) V. annabella nectaring on marigolds; KITSAP CO., Port Orchard Airport, April 6-17 (JP, JPP) I. eryphon sheltensis; Kittitas Co., Iron Peak, Aug. 9 (JPP) E. vidleri COUNTY, Mt. Margaret, el. 5200', Aug. 19 (BK) E. vidleri SOUTH; LEWIS CO., St. Hwy. 603 x I-5 nr. Toledo, May 24 (RP) C. palaemon, Drew Prairie, May 24 (RP) E. editha; LINCOLN CO., Magnuson Bluff Nature Conservancy Preserve, May 12 (RP) N. antiopa, nearby Magnuson farm, May 12 (RP) P. faunus, Irby at Crab Creek, July 30 (MAP, JPP, JP) P. communis & L. melissa, Sullivan Lake, July 30 (MAP, JPP, JP) H. comma harpalus, O. sylvanoides, P. oregonius, P. rutulus, P. multicaudatus, P. occidentalis, C. philodice, C. eurytheme, C. alexandra edwardsii, C. sthenele, C. oetus; MASON CO., Pershing Lake, Mt. Thorsen, el. 4500', Aug. 20 (CEM) E. vidleri; PACIFIC CO., Leadbetter Point, April 16 (RP) I. augustus & I. eryphon, Grays River divide, April 17 (RP) S. melinus, Naselle Salmon Hatchery, Jan 11 (CEM) N. milberti, May 17 (CEM) C. epithore; PEND OREILLE CO., Gypsy Ridge, el. 6800'-7000', Aug. 16 (AM, AR) S. mormonia nectaring on Erigeron; PIERCE CO., Long Woods, Ft. Lewis Military Res., May 29 (JPP, MAP, JP, RP, AMP) I. polios larvae; Okanogan Co., Aeneas Creek, June 26 (JP, JPP, JA, MAP) S. fuliginosum EAST in Okanogan highlands, Moses Meadows, June 27 (JP, JPP, JA, MAP) new and productive site P. coras, P. themistocles, E. persius (many), C. palaemon, a. napi mcdunnoughi COUNTY, C. interior, C. alexandra, S. atantis, S. hydaspe the above four common, E. anicia "howlandi" abundant, P. tharos, C. bellona, C. selene the above three common, P. oreas, Moses Meadows, July 17 (BK) O. garita COUNTY, Methow R., Aug. 21 (JP, JPP) P. coras LATE, P. faunus, P. oreas, C. bellona LATE; STEVENS CO., Colville, Aug. 19 (AM, AR) V. annabella; Thurston Co., Rock Prairie, W. of Tenino, May 21 (RP) new locality for lowland P. mardon nectaring preferentially on Viola adunca, Mima Mounds DNR Natural Area nr. Littlerock, July 30 (RM) S. zereene bremeri exceedingly abundant; WAHIAKUM CO., Nassa Point, March 19 (RP) A. sara; Pigeon Bluff, April 17 (RP) S. melinus, Nassa Point, April 28 (RP) I. augustus, Columbia Whitetail Deer Nat'l Wildlife Refuge, Sept. 30 (RP) V. annabella.

FOOD PLANT RECORDS: Grant Co., Wilson Creek, 1 mi. N. of Wilson Creek (town), July 1 (JP, JPP, MAP, JA) P. communis & H. ericetorum larvae on Sphaeralcea munroana (Dougl.), P. oregonius ova & larvae on Artemisia dracunculus L., P. beckerii larvae on Sissymbrium altissimum, G. lygdamus larvae on Lupinus sericeus var. sericeus, I. acmon larvae on Eriogonum compositum var. compositum Dougl. & on E. strictum; Pinto Dam, July 30 (MAP, JPP, JP) H. ericetorum larvae on S. munroana, P. mylitta larvae on Cirsium vulgare (Savi) Tenore. King Co., Jackson Airport, Feb 11 (JPP) B. lorquini hibernacula on Spiraea; Seattle, various dates, V. annabella larvae on Malva silvestria L. Kittitas Co., Reecer Creek Rd., el. 3680', April 23 (JPP, JP, MAP, JA, TP) P. phoebus magnus larva on Sedum lanceolatum var. lanceolatum Torr., I. acmon larvae and C. heteronea larvae on Eriogonum compositum var. lieanthum Hook.; Schenbly Coulee, April 24 (MAP, JPP, JP, JA, TP) I. acmon larvae on E. c. var. lieanthum & E. strictum Benth., I. icarioides larvae on Lupinus sericeus var. sericeus Pursh; Rocky Coulee, April 24 (MAP, JPP) I. acmon on above two Eriogonum sp. and E. sphaerocephalum Dougl.; Manastash Ridge, nr. Vanderbilt, May 15 (JPP, MAP, JP, JA) G. lygdamus larvae on L. s. var. sericeus, P. sisymbrii larvae on Arabis holboellii var. retrofracta (GRAH.) Rydb., E. ausonides & A. sara larvae on A. sparsiflora var. atrurubens (Greene) Rollins, I. acmon larvae on E. sphaerocephalum; Johnson Cyn., June 11 (JP, MAP, JPP) O. sylvanoides larvae on Elymus cinereus var. cinereus Scribn. and Merr., G. lygdamus larvae on L. s. var. sericeus, N. antiopa larvae on Salix exigua Nutt.; Sentinel Gap, W-side, Aug. 14 (JP, JPP, MAP) C. alexandra edwardsii ovipositing on Medicago sativa L. Klickitat Co., E. prong Little Klickitat R., May 14 (BK, ML, MAP, JPP, JP, JA) E. chalcidona wallacensis larvae on, in descending order of importance, Symphoricarpos albus var. laevigatus Fern., S. mollis Nutt., Verbascum thapsus L., Penstemon sp., Geranium sp. Lincoln Co., Hwy 28, 1.5 mi. E. of Krupp turnoff, July 1 (JP, JPP, MAP, JA) P. beckerii larvae on Descurainia richardsonii var. viscosa (Rydb.) Peck and Thelypodium laciniatum var. streptanthoides (Leiberg) Pays, V. cardui larvae on C. arvense var. horridum Wimm and Grab. Mason Co., Lake Cushman Rd., nr. Hoodsport,

May 22 (JP, JPP, MAP, RM, JAP) *E. persius* ovipositing on *L. latifolius* var. *latifolius* Agardh. Pierce Co., Long Woods, Ft. Lewis Military Res., May 29 (JPP, MAP, JP, RP, AMP) *P. zelicaon* larvae on *L. utriculatum* and *L. triternatum*, *I. polios* larvae on *Arctostaphylos uva-ursi* (L.). Okanogan Co., Bernhardt Creek, June 25 (JP, JPP, JA, MAP) *G. lygdamus* larvae & ova on *Lupinus latifolius* var. *subalpinus* (Piper & Robins) Smith; Boulder Creek Rd., (JP, JPP, JA, MAP) *O. sylvanoides* larvae on *Agropyron caninum majis* (Vasey) Hitchc.; Slate Pk, summit, July 19 (MAP, JPP, SJC) *L. cupreus* larvae on *Oxyria digyna* (L.); Vista Pt, Harts Pass Rd, July 19 (MAP, JPP) *P. eurymedon* larvae on *Ceanothus velutinus*; Methow R, el. 1484', July 20 (JPP, MAP) *P. catullus* ova on *Chenopodium foliosum* (Moench), *S. melinus* ova on *Malva parviflora*, Beaver Creek, July 21 (MAP, JPP, SJC) *I. eryphon* larvae on *Pinus ponderosa* Dougl. Thurston Co., Rock Prairie, May 24 (JP, MAP, BK) *P. zelicaon* ovipositing on *L. utriculatum* (Nutt.) Coult and Rose. Yakima Co., Hwy. 3B E. of Fort Simcoe, May 14 (BK, ML, MAP, JPP, JP, JA) *I. acmon* larvae on *Eriogonum elatum* Dougl.

BRITISH COLUMBIA. BUTTERFLIES: Okanogan District, the highlands west of Vernon and south to Kelowna were collected extensively for the first time yielding NORTH SOUTH and EAST extension of ranges as well as district records; nr. Vernon, May 27-30 (DT) *H. nevada* NORTH; King Edward Lake Rd., el. 4400', June 27 (DT) *C. interior*, July 22 (DT) *C. titania* grandis DISTRICT; el. 1950', June 27 (DT) *L. arthemis* SOUTH; Terrace Mt., S.W. of Vernon, Aug. 17 (CSG) el. 6100'-6240', *E. nivalis* NORTH, *P. phoebus*; el. 5400', *L. nivalis*; July 4, el. 3950' *E. vidleri* NORTH and EAST; Last Mt., el. 4000', June 30 (CSG) *E. vidleri*, *P. phoebus*, *L. nivalis*; Hwy. 33, 27 km. E. of Kelowna, el. 3100', June 8 (DT) *O. macouni* SOUTH; el. 4000', June 11 & 13 (CSG) *M. siva*; Cathedral Prov. Park, Red Mt. & Quinescoe, el. 7500-7900', Aug. 22 (CSG) *C. nastes* SOUTH, *L. cupreus* DISTRICT; 8-22 km. N. of Kamloops, Aug. 27 (FS) larvae of *P. oregonius* on *Artemisia dracuncululus*. Peace District, Clayhurst Ferry, May 16 (TMP) *E. icellus* DISTRICT, *I. eryphon* DISTRICT, *I. polios* DISTRICT, *C. ladon* DISTRICT; *O. alberta* PROVINCIAL. West Kootenay District, Mt. Begbie, nr. Revelstoke, *P. centaurae*, *P. occidentalis*, *C. nastes* DISTRICT, *A. franklini*, *L. cupreus*, *C. astarte* DISTRICT, *O. anica*, *O. chryxus*, *O. melissa*.

ZONE 3 ROCKY MOUNTAINS: ALBERTA, MONTANA, WYOMING, UTAH, COLORADO AND NEW MEXICO. Coordinator: Ray E. Stanford. Contributors: James P. Brock (JPB), F. Martin Brown (FMB), Karolis Bagdonas and his "Flying Circus", including William Bagdonas, Harry and June Benson, Sterling Blanche, Bob Davis, Larry DeBrey, Don Gibborey and Jean Remeir (BFC); Steven J. Cary (SJC), Wayne R. Dawes (WRD), David E. Eiler (DLE), Peter L. Eades (PLE), Clifford D. Ferris (CDF), Michael S. Fisher (MSF), Clyde F. Gillette (CFG), Richard Holland (RH), Joel M. Johnson (JMJ), Samuel A. Johnson (SAJ), Norbert G. Kondla (NGK), Richard L. Klopshinske (RLK), Steven J. Kohler (SJK), David D. Lawrie (DDL), Sanford R. Leffler (SRL), S. Mark Nelson (SMN), Floyd and June Preston (FJP), George A. Sutton (GAS), James A. Scott (JAS), Patrick J. and Susan F. Savage (PJS/SFS), Ray E. Stanford and family (RES), Steve Spomer (SS), Ralph E. Wells (REW). This total of 26 contributors compares with 22 in 1979, 44 in 1980, 35 in 1981, and 33 in 1982. There were over 1500 submissions, representing 4 STATE records and at least 6 COUNTY records for moths, and 5 STATE records and 428 COUNTY records for butterflies. CDF and JAS each reported from 4 states, the other contributors from 3 or fewer. It was the best collecting season in several years, although delayed from 2 to 4 weeks because of heavy winter snowpack and abundant spring moisture. Flooding caused damage to riparian habitats in Colorado and Utah. Summer and autumn conditions were excellent, with many LATE records. *Vanessa cardui* invaded the region in droves from the south, the most extensive migration I have seen. It and the other *Vanessa* species were present regionwide from Apr. to Nov. Once again the emphasis in this summary is new distributional information. The order and nomenclature are essentially those of the new Hodges et al. checklist. Capital letters denote STATE, COUNTY, EARLY, HIGH ALT or LOW ALT records, or directional range extensions [N,S,E,W,NW,NE,SW,SE, NC (North Central), SC (South Central)].

ALBERTA. Contributors: NGK, DDL, SRL. Weekend weather was poor in May and June (NGK), consistent with Fisher's Law. Large invasion of *V. cardui* was observed, from June on into autumn; see specifics below.

BUTTERFLIES: There are no new provincial records, but one new dot for my maps of southern Alberta and 17 range extensions. All but one of the range extensions are extreme NE by NGK. *E. icellus*, Colin Lk and NE, 5-7 July (NGK). *P. mystic*, Gregoire Lk, NE., 1 July (NGK); Ft. Vermilion, NC, 26 July LATE (F. Sperling, fide NGK). *H. comma*, High Rv, 28 June (SRL). *P. phoebus* smintheus, Mt Allen, 4 and 19 July (DDL). *P. zelicaon*, Deer Hills Rch nr Granum, SC, 22 May (DDL). *P. oregonius* dodi, Kneehills Cr nr Drumheller, 7 July, and Red Deer Rv nr Brooks, 15 July (DDL). *P. glaucus*, Wylie Lk, NE, 2-3 July, and Colin Lk, NE, 5-7 July (NGK). *P. rutulus* (not *glaucus*), High Rv, SW (confirmatory), 28 June (SRL). *P. napi*, for "Brick Lk" in 1980 Summary, read Buck Lk (NGK). *P. occidentalis*, Mt Allen, 19 July; Chester Lk, 21 Aug. (both DDL). *E. ausonides*, Mt Allen summit, 26 June-19 July; Mt Allen base, 4 July (DDL) (NOTE: I wonder if the hilltopping ones aren't *hyantis* or *creusa*? RES). *E. olympia*, lower Milk Rv, 4 May EARLY (NGK). *C. meadii* (both meadii and *elis* forms), Chester Lk, 22 Aug; (DDL). *C. alexandria christinia*, Mt. Allen base, 4 July; South Gate Banff NP, 10 July, widely variant from all orange to all yellow males (DDL); for "*C. a. astraea*" in 1980 Summary, read *C. a. alexandra* (NGK). *C. palaeno* and *C. nastes*, Chester Lk, 22 Aug (DDL). *L. cupreus* (both *cupreus* and *snowi* phenotypes), Chester Lk, 22 Aug. (DDL). *L. dorcax*; The reference to this species in BC in the 1980 Zone 3 Season Summary is by NGK, not SJK (my error RES). *L. mariposa*, Chester Lk, common, 22 Aug. (DDL). *S. acadica*, Red Deer Rv nr Brooks, 15 July (DDL). *S. liparops*, Kneehills Cr nr Drumheller, 7 July; Red Deer Rv nr Brooks, 15 July (DDL). *I. augustus*, Colin Lk, NE, 5-7 July LATE (NGK). *C. argiolus*, Wylie Lk, NE, 2-3 July and Colin Lk, NE, 5-7 July (NGK). *E. enoptes*, Lethbridge, WEST by 30 miles, 5 June (NGK). *L. melissa*, Red Deer Rv nr Brooks, 15 July (DDL). *A. aquilo*, Mt. Allen summit, 4 July (DDL); Chester Lk, 22 Aug. (DDL); (*franklinii*) Colin Lk, 5-7 July (NGK). *E. claudia*, worn, Red Deer Rv, nr Brooks, 15 July (DDL). *S. atlantis hollandi*, Colin Lk, 5-7 July (NGK). *P. eunomia*, Wylie Lk, NE, 2-3 July, and Colin Lk, NE, 5-7 July (NGK). *C. freija*, Mt Allen base, 11 June and 1 July (DDL). *C. frigga*, Bragg Cr, 11 June (DDL); Colin Lk, NE, 5-7 July (NGK). *C. titania*, Mt Allen base, 4 July and 19 July (DDL). *H. gillettii*, Mt Allen base, 1-4 July (DDL). *O. anica* including 2 aberrants, Mt Allen base, 1-4 July and 19 July (DDL). *C. palla*, Red Deer Rv, nr Brooks, 15 July (DDL). *C. acastus*, Kneehills Cr, nr Drumheller, 7 July (DDL). *P. tharos arctica*, High Rv, 1070 m, 28 June (SRL). *N. antiopa* and *A. milbertii*, Colin Lk, NE, 5-7 July (NGK). *V. cardui*, major invasion from south, on 10-year schedule since previous one in 1973 (NGK); over 500 seen at Chester Lk, 22 Aug. (DDL). *B. archippus*, Colin Lk NORTH, 5-7 July (NGK). *B. arthemis*, Colin Lk, NE, 5-7 July (NGK); hybrid *arthemis/loquini*, upper W Castle Rv and S Castle Rv, 21 July (NGK); hybrid *arthemis/lorquini*, upper W Castle Rv and S Castle Rv, 21 July (NGK). *C. pegala ino*, Kneehills Cr, nr Drumheller, 7 July (DDL). *C. oetus*, same data ?det (DDL). *E. disa*, Wylie Lk, NE, 2-3 July; Colin Lk, NE, 5-7 July (NGK). *E. discoidalis*, Deer Hills Rch, nr Granum, SC, common, 22 May; Bragg Cr, 11 June; Mt Allen base, 26 June (all DDL). *O. chryxus*, Mt Allen summit, 26 June and 1 July (DDL); Chester Lk, 22 Aug. (DDL); ssp. *caryi*, Colin Lk, NE, 5-7 July (NGK). *O. alberta*, Deer Hills Rch, nr Granum, 22 May (DDL); Sandy Bch Park, Calgary, 27 May (G. Cran, fide DDL). *O. jutta*, Wylie Lk, NE, 2-3 July, and Colin Lk, NE, 5-7 July (NGK). *O. macounii*, Mt Allen summit, 1 July (DDL).

MOths: No data were received.

MONTANA. Contributors: DLE, NGK, SJK, SRL, GAS. *V. cardui* was common as elsewhere in Zone 3; it probably could have

been recorded in all counties. No species are yet known from all 56 counties of Montana.

BUTTERFLIES: There are one STATE record and 125 COUNTY records. *E. afranius*, W. of Pryor, BIG HORN Co., 25 July (SJK, det. CDF). *P. ruralis*, nr. Heart Butte, PONDERA Co., 20 May (SJK). *P. communis*, W. of Pryor, BIG HORN Co., 25 July (SJK); nr. US Hwy 212 about 7 mi. E. of I-90, BIG HORN Co., 4 Aug. (DLE); US Hwy 212 at Alzada, CARTER Co., 3 Aug., (DLE); Red Shale Cg, off US Hwy 212, POWDER RIVER Co., 3 Aug., (DLE); S. of Harlowton, WHEATLAND Co., 24 July (SJK). *A. vialis*, McKay Cr, nr Noxon, SANDERS Co., 7 June (SJK). *O. sylvanoides*, Zortman and NE, PHILLIPS Co., 6 Aug. 82 (delete *P. mystic*; det. NGK). *P. peckius*, 3 mi. N. of Valier Jct, Hwy 89, PONDERA Co., 21 July (SJK). *P. draco*, Georgetown Lk, DEER LODGE Co., 17 Aug. (SJK); S. of Two Dot, WHEATLAND Co., 24 July (SJK). *P. mystic dacotah*, 6 mi. W. of Livingston, PARK Co., 24 July (SJK); S. of Dupuyer, PONDERA Co., 21 July (SJK); Hill Co., 6 Aug. 82, confirmed (NGK). *P. sonora utahensis*, Georgetown Lk, DEER LODGE Co., 17 Aug. (SJK). *H. juba*, Monarch, CASCADE Co. and NE, 16 Aug. 1934 (MSU coll'n, SJK, det. CDF). *H. comma* nr *manitoba*, S. of Marias Ps, Pike Cr Rd, PONDERA Co., 21 July (SJK, det CDF); *H. comma* nr *oregonia*, 2.6 km S. of Babb, US Hwy 89, 1700 m, Glacier Co., 18 June 1976 EARLY (SRL) (verification requested - RES). *O. garita*, 3 mi. N. of Valier Jct, PONDERA Co., 10 Aug. (SJK). *C. palaemon*, Storm Lk Rd, nr Georgetown Lk, DEER LODGE Co., 10 Aug. (SJK); Pike Cr Rd, S. of Marias Ps, PONDERA Co., 21 July (SJK). *P. phoebus xanthus*, Beartooth Plateau, 1 mi. N. of WY line, US Hwy 212, Carbon Co., 5 Aug. (DLE); *P. phoebus montanulus*, 2.6 km S. of Babb, US Hwy 89, 1700 m, Glacier Co., 18 June 1976 (SRL); *P. phoebus* ssp not specified, S. of Two Dot, WHEATLAND Co., 24 July (SJK). *N. menapia*, Georgetown Lk, DEER LODGE Co., 17 Aug. (SJK); E. Fk Boulder Rv, nr McLeod, SWEETGRASS Co., 7 Sept. (SJK). *P. rapae*, nr. Garrison, POWELL Co., 1 June (SJK); 3 mi. N. of Valier Jct, PONDERA Co., 21 July (SJK); S. of Harlowton, WHEATLAND Co., 24 July (SJK); Galen, DEER LODGE Co., 10 Aug. (SJK). *P. occidentalis*, W. of Pryor, BIG HORN Co., 25 July (SJK). *P. beckerii*, 10 mi. S. of Pryor, BIG HORN Co., 14 July (SJK). *E. hyantis*, Black Pine Rd, nr Phillipsburg, Granite Co., 6 June (SJK). *C. eurytheme*, US Hwy 212 at Alzada, CARTER Co., 3 Aug. (DLE); Doolittle Cr, nr Wisdom, BEAVERHEAD Co., 23 Sept. (SJK); Pikes Peak Cr, nr Gold Cr, POWELL Co., 23 Sept. (SJK). *C. philodice*, S. of Harlowton and S. of Two Dot, WHEATLAND Co., 24 July (SJK). *C. pelidne skinneri*, Storm Lk Rd, nr Georgetown Lk, DEER LODGE Co., 10 Aug. (SJK). *C. gigantea harroweri*, Swan Rv St Forest, LAKE Co., 7 July (SJK). *E. nicippe*, W. Glacier, FLATHEAD Co and STATE RECORD, 620 mi NORTH range extension, 28 July (GAS). *L. cupreus snowi*, Black Pine Rd, nr Phillipsburg, GRANITE Co., 6 June (SJK); Beartooth Plateau, Carbon Co., 24 July 1978 (DLE). *L. xanthoides dione*, Dry Fk Cr, S. of Dupuyer, PONDERA Co., 21 July (SJK). *L. editha montana*, Georgetown Lk, DEER LODGE Co., 17 Aug. (SJK). *L. hyllus*, Dry Fk Cr, S. of Dupuyer, PONDERA Co., 21 July (SJK); S. of Harlowton, WHEATLAND Co., 24 July (SJK). *L. heteronea*, Georgetown Lk, DEER LODGE Co., 17 Aug. (SJK). *L. rubidus*, Galen, DEER LODGE Co., 10 Aug. (SJK). *L. helloides*, Georgetown Lk, DEER LODGE Co., 17 Aug. *L. dorcus*, BC reference in 1980 Zone 3 Summery is NGK, not SJK (my error). *L. mariposa*, Georgetown Lk, DEER LODGE Co., 17 Aug. (SJK). *H. titus*, S. of Harlowton, WHEATLAND Co., 24 July (SJK); W. of Pryor, BIG HORN Co., 25 July (SJK). *S. liparops*, Laurel, YELLOWSTONE Co., 12 July (SJK); Silesia, CARBON Co., 12 July (SJK); 3 mi. N. of Valier Jct, PONDERA Co., 21 July (SJK); 5 mi. S. of Augusta, LEWIS & CLARK Co., 21 July (SJK); Chouteau, TETON Co., 21 July (SJK); Logan, GALLATIN Co., 23 July (SJK); nr Three Forks, BROADWATER Co., 23 July (SJK); La Hood, JEFFERSON Co., 23 July (SJK); 6 mi. W. of Livingston, PARK Co., 24 July (SJK); S. of Harlowton, WHEATLAND Co., 24 July (SJK); Bozeman, GALLATIN Co., 24 July (SJK); W. of Pryor, BIG HORN Co., 25 July (SJK). *S. acadica*, Pryor, BIG HORN Co., 25 July S(JK). *I. polios*, nr Heart Butte, PONDERA Co., 20 May (SJK). *G. lygdamus*, nr Heart Butte, PONDERA Co., 20 May (SJK). *G. piasus daunia*, 2.6 km S. of Babb, Glacier Co., 18 June 1976 (SRL). *L. melissa*, 10 mi. S. of Pryor, 14 July (SJK), and US Hwy 212, 7 mi. E. of Hwy I-90, 4 Aug. (DLE), both BIG HORN Co.; Red Shale Cg, nr US Hwy 212, POWDER RIVER Co., 3 Aug. (DLE); S. of Two Dot, WHEATLAND Co., 24 July (SJK). *P. saepiolus*, Dry Fork Cr, S. of Dupuyer, PONDERA Co., 21 July (SJK). *P. icarioides*, S. of Two Dot, WHEATLAND Co., 24 July (SJK). *E. claudia*, 10 mi. S. of Pryor, BIG HORN Co., 14 July (SJK); US Hwy 212 at Alzada, CARTER Co., 3 Aug. (DLE). *S. cybele leto*, Dry Fork Cr, S. of Dupuyer, PONDERA Co., 21 July; S. of Harlowton, WHEATLAND Co., 24 July (both SJK). *S. aphrodite*, 3 mi. N. of Valier Jct, PONDERA Co., 21 July; S. of Harlowton, WHEATLAND Co., 24 July (both SJK). *S. callippe*, S. of Two Dot, WHEATLAND Co., 24 July (SJK). *S. coronis*, 10 mi. S. of Pryor, BIG HORN Co., 14 July (SJK); delete TOOLE Co. record from the 1980 Summary, it is a misdetermination (NGK). *S. atlantis hutchinsi*, 2.6 km. S. of Babb, Glacier Co. 28 June (SRL); *S. atlantis*, ssp. not specified, Georgetown Lk, DEER LODGE Co. 17 Aug. (SJK). *S. hydaspe* and *S. mormonia*, Georgetown Lk, DEER LODGE Co., 17 Aug. (SJK). *C. selene*, Dupuyer, PONDERA Co., 21 July; S. of Harlowton, WHEATLAND Co., 24 July (both SJK). *O. editha hutchinsi*, Beartooth Plateau, Carbon Co., 5 Aug. (DLE). *C. gorgone*, W. of Pryor, BIG HORN Co., 25 July (SJK). *P. tharos* (phenotype not specified), US Hwy 212, 7 mi. E. of Hwy I-90, BIG HORN Co., 4 Aug. (DLE); Alzada, CARTER Co., 3 Aug. (DLE); Galen, DEER LODGE Co., 10 Aug. (SJK); Dupuyer, PONDERA Co., 21 July (SJK); S. of Harlowton, WHEATLAND Co., 24 July (SJK). *P. campestris (pratensis)*, Georgetown Lake, DEER LODGE Co., 17 Aug.; Chouteau, TETON Co., 21 July; S. of Two Dot, WHEATLAND Co., 24 July (all SJK). *P. mylitta*, Tamarack Cr, nr St. Regis, MINERAL Co., 26 Sept. (SJK). *P. faunus*, W. of Anaconda, DEER LODGE Co., 21 Sept.; Pikes Peak Cr, nr Gold Cr, POWELL Co., 23 Sept. (both SJK). *P. oreas*, W. of Anaconda, DEER LODGE Co., 21 Sept.; Doolittle Cr, nr Wisdom, BEAVERHEAD Co., 23 Sept. (both SJK). *P. zephyrus*, 10 mi. S. of Pryor, BIG HORN Co., 14 July; W. of Anaconda, DEER LODGE Co., 21 Sept.; Revais Cr, nr Dixon, SANDERS Co., 26 Sept. (all SJK). *P. satyrus*, W. of Anaconda, DEER LODGE Co., 21 Sept.; Tamarack Cr, nr St. Regis, MINERAL Co., 26 Sept. (both SJK); boreal form, Beartooth Plateau, Carbon Co., 5 Aug. (DLE). *N. antiopa*, S. of Harlowton, WHEATLAND Co., 24 July; W. of Anaconda, DEER LODGE Co., 21 Sept.; Pikes Peak Cr, nr Gold Cr, POWELL Co., 23 Sept.; Doolittle Cr, nr Wisdom, BEAVERHEAD Co., 23 Sept.; Tamarack Cr, nr St. Regis, MINERAL Co., 26 Sept., (all SJK). *N. (A.) milberti*, W. of Anaconda, DEER LODGE Co., 21 Sept. (SJK). *V. atalanta*, S. of Harlowton, WHEATLAND Co., 24 July; W. of Pryor, BIG HORN Co., 25 July (both SJK). *V. cardui*, 10 mi. S. of Pryor, BIG HORN Co., 14 July; Pike Cr Rd, S. of Marias Pass, PONDERA Co., 21 July; 6 mi. W. of Livingston, PARK Co., 24 July; S. of Harlowton, WHEATLAND Co., 24 July (all SJK). *B. archippus*, 3 mi. W. of Valier Jct., PONDERA Co., 21 July; nr Three Forks, BROADWATER Co., 23 July; S. of Harlowton, WHEATLAND Co., 24 July; Georgetown Lake, DEER LODGE Co., 17 Aug. (all SJK). *B. lorquini*, Storm Lake Rd, nr Georgetown Lk, DEER LODGE Co., 10 Aug. (SJK). *B. weidemeyeri*, 10 mi. S. of Pryor, BIG HORN Co., 14 July (SJK). *C. tullia benjamini*, 2.6 km S. of Babb, Glacier Co., 28 June (SRL). *C. tullia ochracea*, 3 mi. N. of Valier Jct, PONDERA Co., 21 July; S. of Two Dot, WHEATLAND Co., 24 July; Georgetown Lake, DEER LODGE Co., 17 Aug. (all SJK). *C. pegala*, Dry Fork Cr, S. of Dupuyer, PONDERA Co., 21 July; nr Three Forks, BROADWATER Co., 23 July; S. of Harlowton, WHEATLAND Co., 24 July; Galen, DEER LODGE Co., 10 Aug. (all SJK). *C. oetus*, 10 mi. S. of Pryor, BIG HORN Co., 14 July; S. of Harlowton, WHEATLAND Co., 24 July; Georgetown Lake, DEER LODGE Co., 17 Aug. (all SJK). *E. epipsodea*, Pike Cr Rd, S. of Marias Ps, PONDERA Co., 21 July (SJK). *E. theano ethela* and *E. callias*, common, Beartooth Plateau, Carbon Co., 5 Aug. (DLE). *N. ridingsii*, Beartooth Plateau, Carbon Co., 24 July 1978 (DLE); S. of Two Dot, WHEATLAND Co., 24 July (SJK).

MOTHS: *Sphinx vashti* and *Hyles lineata*, at light, Red Shale Cg, nr US Hwy 212, Powder River Co., 3 Aug. (DLE).

WYOMING. Contributors: BFC, DLE, CDF, RLK, FJP, JAS. Spring was very wet and summer cool, so that most species flew late and in reduced numbers. Alpine species flew well, and many lower altitude species were still observed as late as November (BFC). One STATE record and 37 COUNTY records were observed for butterflies, and one STATE record and at least 4 COUNTY records for moths. No species are yet known from all 24 counties, but *C. philodice* leads with 23 counties (all but Hot Springs Co.). CDF made an intensive study of the fauna of Devil's Tower National Monument, Crook Co., joined on

two occasions by Karölis Bagdonas; these are abbreviated DTNM below.

BUTTERFLIES: *E. juvenalis*, DTNM, 30 May. *E. afranius*, DTNM, 2 July (CDF). *P. centaureae loki*, not as common in Snowy Rg as in 1982 (BFC); Beartooth West Summit, 10,950', Park Co., 6 Aug. (DLE); Bridger Wilderness above Pinedale, Sublette Co., 7 Aug. (FJP); Wind Rv Mts, abundant (odd year population), early Aug. (JAS). *P. communis*, DTNM, CROOK Co., 9 June and 6-13 Aug. (CDF); Snowy Rg, CARBON Co. (BFC). *P. catullus*, lower elevations, CARBON Co. (BFC). *P. (Hesperopsis) libya lena*, 13.4 mi. N. of Rawlins, CARBON Co., 12 July 1981 (RLK). *A. vialis*, 9 June and 1-2 July, DTNM (CDF). *A. hianna turneri*, common, 30 May-9 June, DTNM, CROOK Co and 2nd WY record (CDF). *E. vestris* (probably kiowah), DTNM, 2 July-13 Aug. (CDF). *A. arogos iowa*, DTNM, 2-24 July (CDF). *A. logan lagus*, DTNM, 23-24 July (CDF). *P. hobomok hobomok*, DTNM, 2 July (CDF). *P. taxiles*, DTNM, 2 July-3 Aug. (CDF). *O. sylvanoides napa*, DTNM, CROOK Co., 17-18 Aug. (CDF). *P. peckius*, Cook Lk, CROOK Co and 1st E. WY record, 27 July (R. Lavigne, CDF). *P. origenes rhena*, DTNM, 24 June-13 Aug. (CDF). *P. mystic dacotah*, DTNM, CROOK Co., 2 July (CDF). *H. juba*, Ryan Park Cg, Carbon Co., 18 Aug. (DLE). *H. p. pahaska*, mountains in CARBON Co. (BFC). *H. comma* ssp, DTNM, CROOK Co., 17-18 Aug. (CDF). *H. leonardus pawnee*, DTNM, CROOK Co., 17 Aug. (CDF). *Y. rhesus*, 1 mi. S. of Newcastle, WESTON Co., 4 June (R. Lavigne, CDF). *P. glaucus canadensis*, DTNM, 10-18 June (CDF). *P. rutulus*, DTNM, CROOK Co., 1 July (CDF) - single specimen, perhaps introduced). *E. olympia*, DTNM, 30 May (CDF). *C. scudderii*, Hwy CR 130, 2-3 mi. W. of Albany Co. line, Carbon Co., 18 Aug. (DLE). *C. gigantea harroweri*, Slide Falls nr Green Rv Lakes, Sublette Co., 6 Aug. (FJP). *C. pelidne skinneri*, E. side of Munkres Pass, common, Johnson Co., 31 July (FJP); Beartooth Lk Cg, Park Co., 6 Aug. (DLE). *P. sennae*, Laramie, 18 June and 7 mi. N. of Laramie, 23 June, Albany Co. (BFC). *N. iole*, DTNM, CROOK Co., 17 Aug. (CDF). *L. phlaeas*, just above timberline, Wind River Mts, FREMONT and/or SUBLETTE Co., early Aug. (JAS). *L. cupreus artemisia*, above and below timberline, Wind River Mts, early Aug. (JAS); *L. cupreus snowi*, below timberline, Long Lake, Park Co., 5 Aug. (DLE). *H. titus*, DTNM, 23 June-17 Aug. (CDF). *S. fuliginosum semiluna*, 11.5 mi. E. of Burgess Jct., SHERIDAN Co., 29 July (FJP). *S. calanus* ssp, DTNM, CROOK Co. and first record from eastern WY, 23-24 July (CDF). *S. liparops* ssp, DTNM, CROOK Co., 17 July-3 Aug. (CDF). *M. siva siva*, DTNM, CROOK Co., 18 June-23 July (CDF). *S. melinus*, DTNM, CROOK Co., 13 July-13 Aug. (CDF); 18 mi. S. of Mule Cr Jct, NIOBRARA Co., 27 Aug. (R. Lavigne, CDF). *E. isola*, SWEETWATER Co., July-Oct. (BFC). *E. enoptes ancilla*, Ryan Park Cg, Snowy Rg, CARBON Co., 3 Aug. (FJP). *L. melissa*, 5 mi. S. of Mule Cr Jct, NIOBRARA Co., 2 June (R. Lavigne, CDF); population explosion in Snowy Rg with over 1500 specimens observed on 23 Oct. (BFC). *E. claudia*, DTNM, CROOK Co., 7-14 Aug. (CDF); SWEETWATER Co., July-Oct. (BFC); Muddy Cr Rd., nr US Hwy 212, PARK Co., 4 Aug. (DLE). *S. callippe* ssp., DTNM, 4-24 July (CDF). *S. coronis* ssp, DTNM, 23 July-18 Aug. (CDF). *S. atlantis lurana*, DTNM, 26 June (CDF); Reuter Cg, Crook Co., 28 July (FJP). *S. edwardsii*, DTNM, 2 July-14 Aug. (CDF). *B. napaea halli*, widespread throughout Wind Riv Mts in subalpine and lower alpine zones, Sublette and FREMONT Co., early Aug. (JAS); Bridger Wilderness, Sublette Co. 7-10 Aug. (FJP). *P. eunomia laddi*, Libby Lk, Snowy Rg, Albany Co., 12 Aug. (FJP). *C. improba* (undescribed ssp), Wind Riv Mts, at treeline, FREMONT and/or SUBLETTE Co., STATE record and almost incredible range extension, early Aug. (JAS). *P. tharos*, B phenotype, DTNM, Crook Co., 10 July (CDF); A phenotype, DTNM, 6-13 Aug. (CDF); A phenotype, Muddy Cr Rd, nr US Hwy 112, Park Co., 6 Aug. (DLE). *P. progne*, DTNM, CROOK Co. and confirmatory STATE record, 23-24 July (CDF). *P. satyrus*, DTNM, CROOK Co., 24 July (CDF); K-Z Ranch, Hwy 296, PARK Co. 19-20 June (R. Lavigne, CDF); Beartooth E. Summit, boreal form, PARK Co., 6 Aug. (DLE). *N. antiopa*, Cabin Cr Cg, Shell Cn, BIG HORN Co., 31 July (FJP). *V. cardui*, mass migration northward in late April, common statewide until September, but no new county records (BFC). *B. archippus*, Keyhole Resvr, CROOK Co., 11 Aug. (R. Lavigne, CDF). *B. weidemeyerii oberfoelli*, DTNM, 20 June-2 July (CDF). *C. tullia benjamini*, DTNM, 9 June-2 July (CDF). *C. haydenii*, Muddy Cr Rd, US Hwy 212, Park Co., 4-6 Aug. (DLE); Green Riv Lks, Sublette Co., 6 Aug. (FJP). *Cercyonis meadii*, DTNM, CROOK Co. 10-18 Aug. (CDF). *E. theano*, Wind Riv Mts, uncommon in this mainly even-year population, early Aug. (JAS). *E. callias*, Fantan Lk Rd at US Hwy 212, Park Co., 6 Aug. (DLE). *O. uhleri uhleri*, DTNM, 30 May (CDF). *O. melissa beani*, Wind River Mts, early Aug. (JAS). *O. taygete* and *O. polixenes brucei*, flying together and often with *melissa* too, Wind River Mts, FREMONT and/or SUBLETTE Co. (new for *taygete* only), early Aug. (JAS).

MOTHS: **BOMBYCOIDEA** - *Automeris io*, Jim Bridger Coal Mine, 12 mi. N. of Point-of-Rocks, SWEETWATER Co., 1 July (BFC). *Anthea polyphemus*, same locality, SWEETWATER Co., 21 June (BFC); DTNM, 10 June and 2 July. *Gloveria arizonensis*, DTNM, 12 July. *Malacosoma americanum*, DTNM, 1-2 July. *Hyalophora gloveri*, DTNM, 30 May and 16 June. *Coloradia doris*, DTNM, 15 June and 4 July. *C. pandora*, DTNM, 13 Aug. **SPHINGOIDEA** - *Ceratomia undulosa*, DTNM, 25 June-2 July. *Sphinx vashti*, DTNM, 11 June-13 July; Albany Co. (BFC). *S. drupiferarum*, DTNM, 1 July. *Smerinthus cerisyi*, DTNM, 12-14 July; Albany Co. (BFC). *Paonias excaecatus*, DTNM, 3 June and 20 July. *P. myops*, DTNM, 3 June and 13 July; Albany Co. (BFC). *Pachysphinx modesta*, pale form, DTNM, 15-24 July; Albany Co. (BFC). *Hyles gallii*, DTNM, 2 July. *H. lineata*, DTNM, 16 Aug; Albany Co. (BFC). *Hemaris diffinis*, DTNM, 24 June. *H. thysbe*, DTNM, 23 July. *H. senta*, Albany Co. (BFC). **ARCTIIDAE** - A great season for *Apantesis* in Albany Co. (BFC); the following species were recorded June-Aug: *williamsi*, *nevadensis*, *phyllira*, *proxima*, *virguncula* and *blakei*. *Aemilia ambigua*, 7 mi. N. of Laramie, ALBANY Co., 23 July (BFC). *Estigmea acrea*, abundant around Laramie, July-Aug. (BFC). **NOCTUIDAE** - *Catocala relictata*, Seven Mile Cr, Benson Rch, ALBANY Co. and STATE RECORD, 25 Aug; Benson Rch, CARBON Co., 1 Sept. (Bensons, BFC). *C. ilia*, *ultronia*, *aholibah*, *crateagi*, *amatrix* and *messalina*, DTNM, July-Aug. (CDF).

UTAH. Contributors: WRD, CDF, CFG, JMJ, PJS/SFS, JAS, RES. Spring in northern Utah was mainly wet and cold, followed by warm late May through mid June; there were many clouds and storms again from mid-June through mid-July; August was mainly warm and sunny. Most species of butterflies flew well, but from two to four weeks late (PJS). The abbreviation CC = Crouse Cn and Brown's Park, 5500'-6200', Daggett Co., 8-9 Aug. (CDF).

BUTTERFLIES: No STATE records were received, but there were 31 COUNTY records (many of these, marked by *, merely confirm earlier records by CFG with data unknown to me). At the Big Pine, CA meeting, CFG said that he now has records for exactly 30 species from all 29 Utah counties; no other Rocky Mtn state has even one species known to me from all counties. *E. afranius*, CC (CDF). *O. yuma*, common, CC (CDF). *P. zelicaon*, common on hilltops, Asphalt Ridge, 6500', Uintah Co., 24 May (PJS/SFS). *P. indra* nr *minor*, Cockscomb, 40 mi. E. of Kanab, Kane Co., 12 June; larvae taken there emerged as nr *kaibabensis* in late summer (WRD). *C. eurytheme*, 4 rd mi. ENE of Torrey, 6400', WAYNE*Co., 30 Aug. (RES). *P. rapae*, canal S. of US Hwy 6/50, Green River, EMERY*Co., 24 Aug. (RES); Delta, MILLARD*Co., 25 Aug. (RES); 4 rd mi. ENE of Torrey, 6400', WAYNE*Co., 30 Aug. (RES). *T. arota*, CC (CDF). *L. heteronea*, rd to Fish Lk, ¼ mi. SW of Sevier Co. line, PIUTE Co., 19 July (JMJ). *H. crysalus*, Oak Cr, 6200', 5 rd mi. ESE of Oak City, MILLARD Co., 29 Aug. (RES). *A. halesus*, hilltopping in Church Mts, MILLARD Co. 6-25 May 1982 (PJS, omitted in error by RES). *C. sheridanii* (probably *neoperplexa*), E. Elkhorn Loop Rd., 1 mi. W. of Uintah Co. line, 9000', DUCHESNE Co. 17 June (PJS/SFS). *C. "paradoxa"*, fairly common, below Moki-Dugway Overlk, 5300', T40S, R18E, Hwy 191, San Juan Co., 8 May (JAS/RES). *M. siva*, 2 mi. SW of confluence of Pole Cr and Uintah Riv, 6800', DUCHESNE*Co., 17 June (PJS/SFS). *I. augustus iroides*, upper Farm Cr, 8200', 0.5 mi. W. of Uintah Co. line, DUCHESNE Co., 17 June (PJS/SFS). *I. fotis*, Hwy 95, 5 mi. SW of Blanding, San Juan Co., 8 May (JAS, RES). *B. exilis*, Emery, Grand and Millard Counties, 24-25 Aug. (RES). *L. melissa*, 4 rd mi. ENE of Torrey, 6400', WAYNE*Co., 30 Aug. (RES). *S. callippe harmonia*, *S. coronis* nr *snyderi*, *S. zerene platina*, CC (CDF). *P. campestris* (= *pratensis*), canal S. of US Hwy 6/50, Green River, EMERY*Co., 24 Aug; 4 mi. ENE of Torrey 6400', WAYNE*Co., 30 Aug. (both RES). *P. zephyrus*, Oak Cr, 6200', 5 mi ESE of Oak City, MILLARD*Co., 29 Aug.;

Ferron Cn, 10.5 mi. W. of Ferron, 6500', EMERY*Co., 1 Sept. (both RES). V. atalanta, on rabbitbrush along with annabella and the super-abundant cardui (see below): nr Litte Resvr Cg, 9.1 mi. E. of Beaver, 6800', BEAVER*Co., 29 Aug.; 3 mi. W. of Greenwich, 7200', PIUTE*Co., 30 Aug.; 4 mi. ENE of Torrey, 6400', WAYNE*Co., 30 Aug.; Ferron Cn, 10.5 mi. W. of Ferron, 6500', EMERY*Co., 1 Sept. (all RES). V. cardui, common statewide from May through at least October; 0.5 mi. N. of Hwy I-70, 5200', Salina, SEVIER*Co., 25 Aug.; Scipio city park, MILLARD*Co., 25 Aug. (both RES). V. carye annabella, Scipio city park, Millard Co., 25 Aug.; ½ mi. N. of Hwy I-70, 5200', Salina, SEVIER*Co., 30 Aug.; Ferron Cn, 6500', 10.5 mi. W. of Ferron, EMERY*Co., 1 Sept. (all RES). J. coenia, 1.4 mi. W. of Scipio, 5300', MILLARD Co., 25 Aug. (RES). L. (B.) a. archippus, canal S. of US Hwy 6/50, Green River, EMERY*Co., 24 Aug. (RES). L. (B.) weidemeyerii latifascia, CC (CDF). C. pertepida dorothea, nr mouth of Spanish Fk Cn, UTAH Co. and NORTH, several taken by Bob Mower (fide JMJ, data pending). C. sthenele masoni, CC (CDF). C. m. meadii, lwr Pine Peaks area of Parker Mtn, 9100', PIUTE Co. 19 July (JMJ). C. oetus charon, Oak Cr, 6200', 5 mi. ESE of Oak City, MILLARD*Co., 29 Aug.; 4 mi. ENE of Torrey, 6400', WAYNE*Co., 30 Aug.; Ferron Cn, 6500', 10.5 mi. W. of Ferron, EMERY*Co., 1 Sept. (all RES). C. tullia ochracea, CC LATE (CDF). D. p. plexippus, Scipio city park, MILLARD*Co., 25 Aug.; ½ mi. N. of Hwy I-70, 5200', Salina, SEVIER*Co., 30 Aug. (both RES).

MOTHS: The only report is that of CDF: Two Catocala sp, Arachnis apachea, Lophocampa argentata, Apantesis phyllira, Arctia caja ?utahensis. An interesting anecdote is that a Ringtail (Bassariscus astutus) ate several bait pads and an unknown number of moths!

COLORADO. Contributors: FMB, BFC, PLE, CDF, MSF, SAJ, RLK, SMN, JAS, SS, RES. It was a good year for moths, and the best year in a decade for butterflies, although heavy snowpack and spring rains delayed the season by as much as two weeks. Flooding ruined many good riparian habitats (BFC), and it will take probably 5 normal years to restore these. Warm, dry weather in autumn resulted in many new records as late as November. A major invasion by V. cardui was recorded, the first wave the last week of April; the species was common statewide after that well into November, in at least three generations. Now recorded from all but one county (Cheyenne), the Painted Lady is tied with P. protodice and C. eurytheme as the most widely known butterflies in Colorado. Oddly, the latter two species are also known from all save Cheyenne County. No species are yet known from all counties. No STATE records were established, but there were 114 COUNTY records for butterflies (the largest yearly total since I began keeping records), and perhaps 27 for larger moths. Significant records for 97 butterfly species are listed in this Summary, abbreviated to save space; full data for any records are available upon request. Obviously, even the best known Rocky Mtn state still needs a lot of study! It's good to have a resident collector on the West Slope again (RLK), to take up where Scott Ellis (SLE) and others left off. Our annual Gilpin County count on 10 July produced only 82 butterfly species despite good weather, mainly because the season was so late. BFC recorded 25 butterfly species FRESH on 8 Oct., Boulder.

BUTTERFLIES: E. brizo burgessi, Owl Cr Ps Rd., 7000', OURAY Co., 18 June (RLK). E. p. pacuvius, Oak Hill, 8473', Uncompahgre Plateau, Montrose Co. (confirmatory), 30 June (RLK). P. c. communis, Hwy 71, 3.5 mi S. of Punkin Center, 5300', CROWLEY Co., 9 Oct. (RES). H. alpheus, 7.7 mi. S. of Gateway, 4600', Mesa Co., 7 May (JAS); 8 mi. NE. of Cedaredge, 7500', Delta Co., 21 June (RLK). E. vestris kiowah, 4 mi. W. of La Veta Ps, COSTILLA Co., 31 July (RES); 8 mi. NE of Cedaredge, Delta Co., 28 Aug. (RES). P. taxiles, 2 mi. N. of Needleton, SAN JUAN Co., 3 Aug. (RES). P. peckius, common, Larimer, Boulder and ADAMS counties, two generations, June-Aug. (BFC). P. origenes rhena, N. Clear Creek, 7200', GILPIN Co., 10 July (RES). A. campestris, Limon, LINCOLN Co., 9 Oct. (RES); Hwy 71, 3.5 mi. S. of Punkin Ctr, 5300', CROWLEY Co., 9 Oct. (JAS, RES). H. uncas uncas, very common, Pawnee Natl Grsld, Weld Co., June (BFC); E. and W. of Rio Grande Riv, Conejos and Costilla counties, 31 June (RES). H. uncas lasus, common, Delta, Montrose and Mesa counties, June (RLK); E. of Nucla, 6900', Montrose Co., 10 Sept. (RLK). H. comma nr harpalus, Dolores Cn Ovrllk, 8000', 10.2 mi. E. of Dove Creek, DOLORES Co., 5 Aug. (RES); Hwy Spg Cg, US Hwy 160, 8300', RIO GRANDE Co., 7 Aug. (RES). H. pahaska, Rubideau Cn 5600', Montrose Co., 14 June (RLK); NW of Delta nr Gunnison Riv, Delta Co., 11 Sept. (RLK). A. numitor, 6-mile Cr, E. of Vineland, PUEBLO Co. and WEST, 28 Aug. (JAS). M. coloradensis, larvae and pupae, Delta and Montrose counties, emg May (RLK). P. bairdii and P. b. brucei, Dolores Cn Ovrllk, 8000', 10.2 mi. E. of Dove Creek, DOLORES Co. and SOUTH for brucei, 5 Aug. (RES); both forms, W. Unaweep Cn, MESA Co., 29-31 Aug. (RLK, SS); form hollandii, Uncompahgre Plateau, MONTROSE Co., 31 July (RLK). P. indra minori, S. of Mack, Delta Co., 10 June (MSF); W. rim Black Cn, Montrose Co., 22 Jun (RLK). N. menapia, Dolores Cn Ovrllk, 8000', 10.2 mi. E. of Dove Creek, DOLORES Co., 5 Aug.; Lake Mancos Rch, 7800', MONTEZUMA Co. and SW, 1 Aug. (both RES). P. rapae, Boulder, Boulder Co., 11 Mar EARLY (PLE); Cascade Cr at Hwy 550, 8900', SAN JUAN Co., 4 Aug. (RES); E. side of Hwy 207, N. of Manzanola, 4250' along Arkansas Riv, CROWLEY Co., 9 Oct. (RES). P. napi mcdunnoughi, Sharkstooth Ps Tr, 1 mi E. of Twin Lks, 11,200', MONTEZUMA Co. and SW, 2 Aug. (RES). P. protodice, Horsetooth Mtn, Larimer Co., 26 Feb. EARLY (PLE); Lake Fork, Gunnison Riv, HINSDALE Co., 1 Aug. (JAS); 1.9 mi. S. of Egnar, 7000', SAN MIGUEL Co., 5 Aug. (RES); Park Cr Cg, Hwy 160, 8400', MINERAL Co., 7 Aug. (RES); Hwy Spg Cg, Hwy 160, 8300', RIO GRANDE Co., 7 Aug. (RES). P. sisymbrii elivata, Gypsum, EAGLE Co., 30 May (JAS). E. hyantis, Avon, EAGLE Co., 29 May (JAS). A. sara thoosa, 6 mi. NE of Cedaredge, Delta Co., 10-24 May (RLK); sara ssp, nr Box Cn Falls, 7000', Ouray Co., 3 June (RLK). C. meadii, Sharkstooth Pass 12,000', MONTEZUMA Co. and SW, 2 Aug. (RES); above Rabbit Ears Pass, ROUTT Co., Sept. (BFC). C. eurytheme, Park Cr Cg, Hwy 160, 8400', MINERAL Co., 7 Aug. (RES); Hwy 71, 3.5 mi. S. of Punkin Ctr, 5300', Lincoln Co., 9 Oct. (RES); Ordway, 4300', CROWLEY Co., 9 Oct. (RES). C. philodice, Limon, 5365', LINCOLN Co.; Ordway, 4300', CROWLEY Co., both 9 Oct. (JAS, RES). Z. cesonia, gulch 7.7 mi. S. of Gateway, 4600', MESA Co., 7 May EARLY (JAS, RES); Highline Canal, ADAMS Co. 12 July (BFC). P. sennae eubule, seen in moderate numbers: Boulder Co. 7 July (PLE); Jefferson Co., 10 July (PLE, RES); Beulah, PUEBLO Co., 16 July (Dale L. Barlow, PLE); El Paso Co., 20 July (FMB); WELD Co., 17 June (BFC). K. lyside, Beulah, PUEBLO Co., 16 July (DLB, PLE). E. mexicana, HINSDALE Co., 1 Aug. (JAS). E. nicippe and N. iole, nr Cortez, Montezuma Co., 9 May EARLY (RES). N. iole, MOFFAT Co. (BFC). T. arota, 1.9 mi. S. of Egnar, 7000', SAN MIGUEL Co., 5 Aug. (RES); 7 mi. E. of Ridgeway, 7600', OURAY Co., 13 Aug. (RLK). L. cupreus snowi, Sharkstooth Ps, 12,000', MONTEZUMA Co. and SW, 2 Aug. (RES). L. hyllus, Roxborough Park, DOUGLAS Co., 17 Sept. (SMN). L. rubidus, Jackson and Moffat counties, into Oct. LATE (BFC). L. nivalis browni, common, Uncompahgre Plateau, 7750'-8800', Montrose Co., 23 June EARLY-28 July (RLK). H. crysalus, CU campus, Boulder, BOULDER Co. and NORTH for East Slope, Weird record with no native oaks in 30 miles, single female taken, 15 Aug. (PLE); 1.9 mi. S. of Egnar, SAN MIGUEL Co., 5 Aug. (RES); 4.8 mi. E. of Dove Creek, 7400', DOLORES Co., 5 Aug. (RES); RIO BLANCO Co., 30 Aug. (SS). H. titus immaculosus, along US Hwy 160, Mineral and Rio Grande counties, SOUTH for phenotype, 7 Aug. (RES). S. b. behrii, Dolores Cn Ovrllk, 8000', 10.2 mi E. of Dove Creek, Dolores Co., 5 Aug. (RES). S. liparops, same, DOLORES Co. and SW (RES). S. californica, Owl Cr Ps Rd at Nate Cr 7700', OURAY Co., 4 Aug (RLK). S. sylvinus, 1.9 mi. S. of Egnar, 7000', SAN MIGUEL Co. 5 Aug., (RES). C. s. sheridanii, unusual phenotype on West Slope, Avon, Eagle Co., 29 May (JAS). C. "paradoxa", gulch 7.7 mi. S. of Gateway, 4600', Mesa Co. 7 May (JAS, RES). C. apama homoperplexa, aberrant with brown rather than green undersides, nr Austin Bluffs, El Paso Co., 20 June (SAJ); seven hairstreak species in one hour (apama, melinus, crysalus, behrii, calanus, liparops, californica), same place, 15 July (SAJ). I. eryphon, Keystone Gulch, SUMMIT Co., 21 June (JAS). I. augustus annetteae, Owl Cr Ps Rd., 7000', OURAY Co., 3 June (RLK); also Delta, Mesa and Montrose counties, 7-25 May (RLK). S. melinus, Hwy 71, 3.5 mi. S. of Punkin Center, Lincoln Co.; E. side of Hwy 207, 2 mi. N. of Manzanola, 4250', CROWLEY

Co., both 9 Oct. (RES); common statewide, June-Oct. (BFC). *B. exilis*, Ft. Lupton, WELD Co., 25 Aug. (JAS); Mancos Riv Cn, 5250', Montezuma Co., 9 May EARLY (RES); 2 mi. N. of Manzanola, Crowley Co., 9 Oct. (RES). *L. marina*, 2 mi. N. of Manzanola, Crowley Co., 9 Oct. ?LATE (RES). *H. isola alce*, 1.9 mi. S. of Egnar, 7000', SAN MIGUEL Co.; 4.8 mi. E. of Dove Creek, 7400', DOLORES Co., both 5 Aug. (RES); many records, June-Oct., Larimer, Boulder, Weld, Adams, Arapahoe, Jefferson, Denver, Jackson, ROUTT, MOFFAT, Douglas, MORGAN counties (BFC). *C. argiolus*, his backyard, ARAPAHOE Co., 13 Aug. LATE (MSF). *E. enoptes ancilla*, 1.9 mi. S. of Egnar, 7000', SAN MIGUEL Co.; 4.8 mi. E. of Dove creek, 7400', DOLORES Co., both 5 Aug., worn and LATE (RES). *E. spaldingi*, common and mostly worn, San Miguel and Dolores counties, 5 Aug. (RES); Uncompahgre Plateau, 7750', Montrose Co., 20 July (RLK). *E. rita coloradensis*, 0.6 mi. E. of Kiowa Cr, common, Arapahoe Co., 13 Aug. (MSF). *G. piasus daunia*, 5 mi. W. of Guffey, PARK Co., 9000', 24 June-18 July (SAJ). *L. melissa*, Limon, 5365', LINCOLN Co., 9 Oct. (RES). *A. glandon rustica*, Sharkstooth Ps, 12,000', MONTEZUMA Co. and SW, 2 Aug. (RES); his backyard, ARAPAHOE Co., 13 Aug. (MSF). *P. saepiolus*, Sharkstooth Ps, 12,000', MONTEZUMA Co., 2 Aug. (RES). *P. icarioides*, 4.8 mi. E. of Dove Creek, 7400', DOLORES Co., 5 Aug. (RES). *P. acmon*, 2 mi. N. of Manzanola, 4250', CROWLEY Co., 9 Oct. LATE (RES). *P. shasta pitkinensis*, Sharkstooth Ps, 12,000', MONTEZUMA Co. and SW, 2 Aug. (RES). *E. claudia*, 4.8 mi. E. of Dove Creek, 7400', DOLORES Co., 5 Aug. (RES); 2 mi. N of Manzanola, 4250', CROWLEY Co., 9 Oct. (RES); Jackson Co., Nov. LATE (BFC). *Speyeria*, good flight in northern Front Range (BFC). *S. zerene sinope*, 7 mi. E. of Ridgeway at Cow Cr, 7600', OURAY Co., 13 Aug. (RLK). *C. titania helena*, Sharkstooth Ps Tr, 11,000', MONTEZUMA Co. and SW, 2 Aug. (RES). *O. anicia nr carmentis*, 4 mi. S. of Red Mesa, 6200', La Plata Co., 9 May (JAS); *O. a. alena*, ex larva on Penstemon, 3 mi. S. of Austin, 5400', Delta Co. (RLK). *P. arachne*, sighting nr his house, El Paso Co. 16 Nov. LATE (FMB). *P. tharos* (A type), Ordway, 4300', CROWLEY Co., 9 Oct. LATE (JAS, RES). *P. picta*, 2 mi. E. of Wetmore, CUSTER Co., 11 May 72 (JAS). *P. interrogationis*, 3.5 mi. S. of Punkin Ctr., LINCOLN Co., 9 Oct. (RES); common in Boulder Co., Sept.-Oct. (BFC). *P. satyrus*, Dallas Divide, 8970', SAN MIGUEL Co., 18 June (RLK). *P. oreas* undescribed ssp: the biggest news for Colorado butterflies in 1983 is that the "dark *zephyrus*" which many of us have taken, and which Brown illustrated in his 1957 book "Colorado Butterflies" as *P. silenus*, is indeed *oreas* (JAS). The genitalia are inseparable from Pacific NW and Montana *oreas*, and in fact resemble *progne*. Colorado counties from which we have records for this form are Boulder, Delta, Douglas, Eagle, El Paso, Gilpin, Jefferson, Lake, Mesa, Mineral, Pitkin and Saguache. Additional records are solicited; send to JAS. *N. antiopa*, Sunshine Cn, Boulder Co., 12 JANUARY, EARLY and first Jan. butterfly record in Colorado known to me (PLE); Hwy 71, 0.5 mi. S. of Lincoln Co. line, 4675', CROWLEY Co., 9 Oct. (RES). *V. atalanta*, 2 mi. N. of Manzanola, CROWLEY Co., 9 Oct. (RES); E. of Olathe, 6500', MONTROSE Co., and not uncommon all over the West Slope, 3 May into autumn (RLK). *V. cardui*, mass migration from south to north, late April-early May, statewide into Nov.; new county records are ALAMOSA (RES), CONEJOS (JAS, RES), CROWLEY (JAS, RES). *V. virginensis*, Lake Fork, Gunnison Riv, HINSDALE Co., 1 Aug. (JAS); 3.5 mi. S. of Punkin Ctr., 5300', LINCOLN Co., 9 Oct. (RES). *V. carye annabella*, 1 mi. W. of Cortez Airport, 5750', MONTEZUMA Co., 9 May (JAS, RES); 1 mi. SW of San Luis, COSTILLA Co., 31 July (RES); 3.5 mi. S. of Punkin Ctr., 5300', LINCOLN Co., 9 Oct. (RES); our meadow, Aspen Spgs, 9000', GILPIN Co., 16 Oct. (RES); fairly common on West Slope (RLK); eleven specimens on same rabbitbrush clump, Boulder Co., 8 Oct. (BFC). *J. coenia*, 3.5 mi. S. of Punkin Ctr., 5300', LINCOLN Co.; Hwy 71, 0.5 mi. S. of Lincoln Co. line, 4675', CROWLEY Co., both 9 Oct. (RES). *B. archippus*, 30 seen, Highline Canal and Sand Cr, Adams Co., 12 July (BFC). *B. weidemeyerii*, 2 mi. N. of Needleton, SAN JUAN Co., 3 Aug. (RES). *A. bredowii eulalia*, W. Unaweep Cn, Mesa Co., 11 Sept., several seen and 2 taken (RLK). *C. pertepida dorothea*, Roxborough St. Park, DOUGLAS Co., 15 July (SMN); 8 mi. E. of Nucla, 6900', Montrose Co., 10 Sept. LATE (RLK). *C. tullia ochracea*, Cascade Cr at Hwy 550, 8900', SAN JUAN Co., 4 Aug. (RES). *C. pegala boopis*, 1.9 mi. S. of Egnar, 7000', SAN MIGUEL Co., 5 Aug. (RES). *C. m. meadii*, 4.8 mi. E. of Dove Creek, 7400', DOLORES Co. and rare on West Slope, 5 Aug (RES). *C. sthenela masoni*, abundant on Rabbitbrush, Hwy 318, milepost 44-45, 5800', Moffat Co., 9 Aug. (CDF). *C. oetus charon*, Lake Fork, Gunnison Riv, HINSDALE Co., 1 Aug. (JAS); Cascade Cr at Hwy 550, 8900', SAN JUAN Co., 4 Aug. (RES). *E. magdalena*, common and fresh, Loveland Ps, Summit Co., 29 July (MSF). *O. alberta osleri*, 5 mi. W. of Guffey, 9500' hilltop, Park Co., 24 June (SAJ). *D. plexippus*, 1 mi. SW of San Luis, COSTILLA Co., 31 July; 3 mi. E. of Alamosa, ALAMOSA Co. 7 Aug. (both RES). *D. gilippus strigosus*, common at Vineland, Pueblo Co. 4 Aug. (JAS); Cottonwood Cn, Rd #7.2, 9.9 mi. S. of Gateway, 4800', Mesa Co., 7 May EARLY (RES).

MOTHS: Only new or unusual observations are listed; many are probably county records. SATURNIIDAE - *H. cecropia*, fairly common in Larimer, Boulder and ADAMS counties, June (BFC). *H. gloveri*, canyons in Boulder and Larimer counties, late June-early July (BFC); W. Unaweep Cn, Mesa Co., 23 June (RLK). *A. polyphemus*, as *cecropia* (BFC); W. Unaweep Cn, Mesa Co., 23 June (RLK). *A. io*, Larimer Co., canyons, early July (BFC); W. Unaweep Cn, Mesa Co., 23 June (RLK). *C. doris*, Boulder and Larimer Co. canyons, late June-early July (BFC). SPHINGIDAE - *M. quinquemaculata* and *M. sexta*, adults June-July and larvae into Oct., Larimer, Boulder, Weld, Adams, Arapahoe and Jefferson counties (BFC). *S. gordius*, W. Unaweep Cn, Mesa Co., 23 June (RLK). *S. jamaicensis*, canyons of Larimer and Boulder counties (BFC). *P. myops*, same (BFC). *P. excaecatus*, fairly common, Boulder and Larimer counties, July (BFC); W. Unaweep Cn, Mesa Co. 23 June (RLK). *H. diffinis*, Boulder and Larimer counties (BFC). *H. senta*, Uncompahgre Plateau, 7750', Montrose Co., 23 June (RLK). *A. nessus*, Highline Canal, ADAMS Co., 12 July (BFC). *E. wiesti*, not observed because of bad weather (BFC). *H. lineata*, common in June, larvae on *Eriogonum inflatum* (?new host), as well as *Abronia fragrans* and *Mirabilis multiflora* (RLK); I think they'll eat anything! RES). ARCTIIDAE - *Pyrharcia isabella*, Boulder and Larimer counties (BFC). *Spilosoma virginica*, same (BFC). *Arctia caja*, S. of Ridgeway, 7100', Ouray Co. 20 Aug. (RLK). *Apantesis nevadensis*, *A. phyllira* and *A. proxima*, canyons of Larimer and Boulder counties, June-Aug. (BFC). *Lophocampa argentata*, common in June, Delta and Montrose counties; larvae on Juniper in May and Oct. (RLK). *L. maculata*, W. Unaweep Cn, Mesa Co., 23 June (RLK). NOCTUIDAE - *Hadena arctica*, W. Unaweep Cn, Mesa Co., 11 Sept. (RLK). Many Catocala, to be determined, same data (RLK). Hundreds of little millers (BFC). NOTODONTIDAE - *Nadata gibbosa*, W. Unaweep Cn, Mesa Co., 23 June (RLK).

NEW MEXICO. Contributors: JPB, SJC, CDF, RH, JAS, RES, REW. Weather was mostly favorable, and most species flew in about average numbers. CDF found blacklighting for moths mediocre, with a few exceptions. SJC found several records for migrants, and *V. cardui* migrated through the state and was common as elsewhere in Zone 3. RH completed his study of Capitan Mts butterflies in 1982 and worked on Jemez Mts butterflies and the NM ranges of *A. pima* and *E. hyantis* in 1983.

BUTTERFLIES: There were 4 STATE records and 104 COUNTY records, with numerous range extensions. RH found 98 species in the Capitan Mts and 119 species in the Jemez Mts, in his continuing study of NM mountain ranges. SJC recorded 41 species new from Luna Co., more than tripling the county number from 13 to 54 species, and RH added two more, for 56. SJC Luna Co. records are from 5 trips to Spring Cn in the Florida Mts, and to Rock Hound State Park in the Little Florida Mts; these are abbreviated below to save space. CDF provided data for over 100 species. *E. clarus huachuca*, Water Cn, 6700', Magdalena Mts., Socorro Co., 21 June (CDF); *E. c. clarus*, CATRON Co., Allyn Museum coll. (SJC), verification needed (RES). *P. leo arizonensis*, Sitting Bull Falls, EDDY Co., 27 Aug; Guadalupe Cn, HIDALGO Co. 3 Sept. (both SJC) (this southern species was observed also in CA and NV in '83, q.v.). *T. pylades*, LUNA Co. (SJC). *T. mexicana dobra*, Pinos Altos Mts, GRANT Co., Allyn Museum coll. (SJC). *E. brizo burgessi*, LUNA Co. (SJC). *E. tristis tatus*, 11 mi. N. of Tinnie, LINCOLN Co., 3 July 82 (RH); LUNA Co. (SJC). *E. afranius*, Jemez Mts, 6800'-7900', Sandoval Co., June; Water Cn, 6700', Magdalena Mts, Socorro Co., 21 June (both CDF). *P. philetas*, Guadalupe Cn, HIDALGO Co and STATE RECORD, 9 Oct. (SJC). *P. xanthus*, 1.5 mi. S. of Dulce Lk, 7400', Rio Arriba Co., 10 May (JAS, RES). *H.*

ericetorum, 8 mi. SE of Reserve, CATRON Co. and SOUTH, 22 May (JPB). *C. nessus*, LUNA Co. (SJC). *S. ceos*, LUNA Co. (SJC). *P. catullus*, Santa Fe, SANTA FE Co., 31 July; LUNA Co. (both SJC). *L. eufala*, Redrock, GRANT Co., Allyn Museum coll (SJC). *A. simius*, 4 mi. E. of Española, RIO ARRIBA Co., 18 June (RH). *A. cassus*, 20 mi. E. of Española, Chicoma Mtn Rd, RIO ARRIBA Co., 15 July (RH). *A. aenus*, LUNA Co. (SJC). *A. texanae*, Mogollón, CATRON Co., 17 July 1982 (REW, det RES). *A. vierecki*, LUNA Co. (SJC); Abiquiu Dam, RIO ARRIBA Co., 29 May (RH). *A. python margarita*, Abiquiu Dam, RIO ARRIBA Co., 29 May (RH). *A. ovinia edwardsii*, Guadalupe Cn, HIDALGO Co. and STATE RECORD, 3 Sept. (SJC). *A. logan* ? *lagus*, 11 mi. N. of Tinnie, LINCOLN Co. and SOUTH, 28 Aug. 1982 (RH). *P. origenes rhena*, Raton, COLFAX Co., Allyn Museum coll (SJC). *H. juba*, Abiquiu Dam, RIO ARRIBA Co. and NE, 29 May (RH). *H. pahaska*, N. McKittrick Cn, EDDY Co., 1 Oct. (SJC). *Y. rhesus*, 4.5 mi. N. of Capulin, UNION Co. and NE, 29 May (JPB). *C. aurantiaca*, LUNA Co. (SJC). *O. edwardsii*, LUNA Co. (SJC). *M. streckeri*, Puye Cliffs, Santa Clara Resvn, RIO ARRIBA Co., 14 June (RH). *B. p. philenor*, adults and larvae, LUNA Co., June-Aug. (SJC). *P. polyxenes ssp.*, LUNA Co. (SJC). *P. bairdii*, Cerro Pelón, RIO ARRIBA Co., 19 June (RH). *P. multicaudatus*, Santa Clara Cn, RIO ARRIBA Co., 30 May (RH); LUNA Co. (SJC). *P. crespontes*, LUNA Co. (SJC); Dog Cn, OTERO Co., 12 Aug; Sitting Bull Falls, EDDY Co., 27 Aug. (all SJC). *P. protodice*, along US Hwy 62/180, LEA Co., 24 May; 2.5 mi. SE of Ramón, DE BACA Co. 28 May (both SJC). *P. sisymbrii*, LUNA Co. (SJC). *P. beckerii*, US Hwy 64 at Vaqueros Cn, 6800', RIO ARRIBA Co., 10 May (JAS). *E. hyantis lotta*, 6 mi. NW of Columbus, 4500', LUNA Co., 10 Apr; 6 mi. NW of San Marcial, 4600', SOCORRO Co., 1 May; 6 mi. W. of Engle, 4600', Sierra Co., 23 Apr; Pajarito Peak, 9200' HIGH ALT, SANDOVAL Co., 4 June (all RH). *A. sara inghami*, LUNA Co. (SJC). *A. pima*, 7 mi. W. of NM Hwy 338 and 12 mi. NW of Animas, 4600', HIDALGO Co. and SW, 17 Apr; 7 mi. W. of Hachita, 5100', GRANT Co., 17 Apr; 6 mi. NW of Columbus, 4500', LUNA Co., 10 Apr. (all RH). *C. eurytheme*, LUNA Co. (SJC). *Z. cesonia*, 1.5 mi. S. of Dulce Lk, 7400', RIO ARRIBA Co., 10 May (JAS); Santa Fe, SANTA FE Co., 14 June (SJC); LUNA Co. (SJC). *P. agarithe*, Sitting Bull Falls, EDDY Co., 27 Aug. (SJC). *P. philea*, 7 mi. W. of Hachita, 5100', GRANT Co. and SW, 3 seen, 17 April (RH). *K. lyside*, Guadalupe Cn, HIDALGO Co. and SW, 3 Sept. (SJC); 11 mi. N. of Tinnie, LINCOLN Co., 3 May '82 (RH). *E. nicippe*, 2.5 mi. SE of Ramón, DE BACA Co., 28 May; LUNA Co. (both SJC). *E. mexicana*, Mogollón, 6800', CATRON Co., 17 July 1982 (REW); LUNA Co., (SJC). *E. proterpia*, Redrock, GRANT Co., Allyn Museum coll (SJC). *N. iole*, LUNA Co. (SJC). *P. alcestis osleri*, nectaring on hoarhound since *Sapindus* was not yet in bloom, Mangus Sps, Gila Riv Vy, N. of Silver City, 17-19 June (CDF). *C. sheridanii neoperplexa*, 1.5 mi. S. of Dulce Lk, 7400', RIO ARRIBA Co. and STATE record (SOUTH), 10 May (JAS). *M. siva*, LUNA Co. (JSC). *S. mcfarlandi*, LUNA Co. and SW (SJC). *I. augustus annetteae*, common on serviceberry, Gobernador Cn, 6200', 10 mi. ESE of Navajo Dam, RIO ARRIBA Co., 10 May (JAS, RES). *I. fotis*, Jemez Sps, SANDOVAL Co., Allyn Museum coll (SJC). *I. polios obscurus*, nr Pecos, SAN MIGUEL Co., Allyn Museum coll. (SJC); Mesa del Pedregosa, RIO ARRIBA Co., 19 June (RH). *E. ontario ilavia*, abundant in scrub oak habitat, hwy 90 at Mile 16, 6300', S. of Silver City, Grant Co., 16 June (CDF); ssp not stated, 11 mi. N. of Tinnie, LINCOLN Co., 20 June 1982 (RH). *S. melinus*, 10 mi. SE of Vaughn, GUADALUPE Co., 30 Sept.; LUNA Co. (both SJC). *L. marina*, LUNA Co. (SJC). *H. isola alce*, LUNA Co. (SJC). *C. argiolus cinerea*, Big Cn, EDDY Co., 28 Mar. (SJC). *P. acmon texanus*, LUNA Co. (SJC). *E. zela cleis*, Guadalupe Cn, HIDALGO Co., 3 Sept. (SJC). *A. mormo mormo*, Holy Ghost Sp., SANDOVAL Co., 28 Aug. (RH). *L. bachmanii larvata*, LUNA Co. (SJC). *A. vanillae incarnata*, LUNA Co. and W. (SJC). *E. claudia*, LUNA Co. (SJC); 10 mi. SE of Vaughn, GUADALUPE Co., 28 May (SJC). *T. fulvia*, Sitting Bull Falls, EDDY Co., 28 May (SJC). *T. theona*, same, EDDY Co.; LUNA Co. (both SJC). *C. lacinia adjutrix*, LUNA Co. and SW (SJC). *T. elada perse*, LUNA Co. (SJC). *D. chara chara*, Guadalupe Cn, HIDALGO Co. and STATE record, 3 Sept. (SJC); *Dymas/chara intergrades*, LUNA Co. (SJC). *A. texana*, Pine Lodge, Capitan Mts, LINCOLN Co., 27 June 1982 (RH). *P. picta*, 10 mi. SE of Vaughn, GUADALUPE Co., 28 May (SJC). *N. antiopa*, Sitting Bull Falls, EDDY Co., 27 Mar. (SJC). *N. californica*, Cerro del Grant, RIO ARRIBA Co., 16 July (RH). *Vanessa* - an explosion year with many records for all four species; *atalanta*, *cardui* and *carye annabella*, LUNA Co. (SJC); *virginiensis*, Big Cn, EDDY Co., 28 Mar. (SJC), and 1.5 mi. S. of Dulce Lk, 7400', Rio Arriba Co., 10 May (JAS, RES). *J. coenia*, LUNA Co. and SW (JSC); Jemez Sps, SANDOVAL Co., 27 Aug. (RH). *B. archippus obsoleta* x *B. astyanax arizonensis* HYBRID, Guadalupe Cn, Hidalgo Co., 3 Sept. (SJC); *B. a. obsoleta*, common, Mangus Sps, Gila Riv Vy, N. of Silver City, Grant Co., 17-19 June (CDF). *A. celtis montis*, LUNA Co.; Guadalupe Cn, HIDALGO Co. and SW, 9 Oct. (both SJC). *O. c. chryxus*, Jemez Mts, 6800'-7900', Sandoval Co., 10-22 June (CDF). *D. gilippus strigosus*, 10 mi. SE of Vaughn, GUADALUPE Co., 27 Aug.; Hwy I-25 at Monticello Exit, SIERRA Co., 11 June; Florida Mts, LUNA Co. (all SJC).

MOTHS: ARCTIIDAE - *Apantesis figurata*, Jemez Mts, SANDOVAL Co., June (CDF); Cherry Cr Cn, GRANT Co., 16 June (CDF); Water Cn, 6700', Magdalena Mts, SOCORRO Co., 21 June (CDF). *A. nevadensis*, Mangus Sps, Gila Riv Vy, N. of Silver City, GRANT Co., 17 June (CDF); Water Cn, 6700', Magdalena Mts, SOCORRO Co., 21 June (CDF). *A. williamsi*, Jemez Mts, SANDOVAL Co., June (CDF). *Ectypia clio*, Mangus Sps, Gila Riv Vy, N. of Silver City, GRANT Co., 17 June (CDF). *Lophocampa maculata*, Jemez Mts, SANDOVAL Co., June (CDF). *Platartia parthenos*, 4 mi. W. of Red Top, 8400', SANDOVAL Co., 27 June (RH); Jemez Mts, 6800'-7900', SANDOVAL Co., June (CDF). *Spilosoma virginica*, Mangus Sps, Gila Riv Vy, N. of Silver City, GRANT Co., 17-19 June (CDF). COSSIDAE - *Comadia bertholdi*, Jemez Mts, SANDOVAL Co., June (CDF). GEOMETRIDAE - *Stenoporpia macdunnoughi*, Water Cn, 6700', Magdalena Mts, SOCORRO Co., 21 June (CDF). LASIOCAMPIDAE - *Phyllodesma americana*, Jemez Mts, SANDOVAL Co., June (CDF). NOCTUIDAE - *Catocala chelidonida*, Mangus Sps, Gila Riv Vy, N. of Silver City, GRANT Co., 17-19 June (CDF). *Euparthenos nubilis*, Water Cn, 6700', Magdalena Mts, SOCORRO Co., 21 June (CDF). SPHINGIDAE - *Pachysphinx m. modesta*, Cañoncito Seco, 9000', RIO ARRIBA Co., 18 June (RH); Jemez Mts, SANDOVAL Co., June (CDF). *Paonias excaecatus*, Jemez Mts., SANDOVAL Co., June (CDF). *P. myops*, Cherry Cr Cn, GRANT Co., 16 June (CDF). *Smerinthus cerisyi*, Jemez Mts., SANDOVAL Co., June (CDF). *Sphinx chercis*, Cherry Cr Cn, GRANT Co., 16 June (CDF). *S. libocedrus*, Abiquiu Dam, RIO ARRIBA Co. and STATE record, 26 May (RH). *S. vashti*, Jemez Mts, SANDOVAL Co., June (CDF).



ZONE 4 GREAT PLAINS: SASKATCHEWAN, MANITOBA, NORTH DAKOTA, SOUTH DAKOTA, NEBRASKA, KANSAS, OKLAHOMA and TEXAS.
 Coordinator: H. A. Freeman. Contributors: George Balogh (GB), George W. Busby III (GWB), David L. Eiler (DLE), Clifford D. Ferris (CDF), Alan W. Fish (AWF), Thomas Flowers (TLF), H. A. Freeman (HAF), Chuck E. Harp (CEH), Cindy L. Harp (CLH), Ron Huber (RH), Sam Johnson (SJ), John Jordison (JJ), John Kemmer (JK), Ed Knudson (EK), Lance Lindenmuth (LL), June and Floyd Preston (JFP), Mike Rickard (MAR), Marvin Rolfs (MR), Richard C. and Dorothy J. Rosche (RDR), Marvin Schwilling (MDS), Ray E. Stanford (RES), James Steen (JAS), Troy Sturgeon (TS), Paul Tuskes (PT), Tim Wagner (TW) and Kent Wilson (KW). There was good coverage from most areas and apparently good collecting in all areas covered.

SASKATCHEWAN. The SW corner of the Province seemed to be the only area with a normal season. All other areas were 2 to 3 weeks behind normal. June and Floyd Preston were the only collectors reporting.

BUTTERFLIES: *Colias alexandra*, *P. melissa melissa*, *G. l. couperi*, *Oeneis uhleri varuna*, *Coenonympha inornata benjamini*, and *C. ochracea ochracea* on June 15, 11 mi. W. of Tompkins, plus *E. epipsodea freemani*, *P. aquilo rustica*, *E. editha hutchinsi*, *B. toddi toddi*, *Everes amyntula albrighti*, *Speyeria callippe calgariana*, *S. atlantis helena*, *S. edwardsi* and *S. m. eurynome* in the W. Cypress Hills, June 16-17. At Melfort Campground several *C. palaemon mandan* were captured on June 20. In Duck Mtn Provincial Park, June 21, *P. glaucus canadensis* was common along with *E. a. albrighti*, and *Glaucopsyche lygdamus* was also flying.

MANITOBA. BUTTERFLIES: The Prestons reported for Cowan, P. kahli and O. macounii, June 21. Duck Mtn Provincial Park; P. kahli, P. m. hudsonianus, P. g. canadensis, B. toddi, O. macounii and E. e. freemani, June 22 (JFP); Dick and Dorothy Rosche report for the period June 25-27 that P. g. canadensis was common in the park; also reported, in addition to the above mentioned species were Poanes hobomok, Erynnis sp., Thorybes pylades, Euchloe ausonides mayi, Everes amyntula albrighti, Glaucopsyche lygdamus afra, Plebejus saepiolus amica, Agriades franklinii rustica, Phyciodes tharos tharos, Polygonia sp., Vanessa atalanta rubria, Coenonympha tullia (RDR). Spruce Woods Provincial Park near Shiloh; Rosches report for June 21 that P. glaucus canadensis was abundant and Coenonympha tullia was fairly common on native prairie; also reported were P. tharos tharos, B. archippus archippus and O. uhleri varuna (RDR). Riding Mtn Nat'l Park; For the period June 18-23, P. glaucus canadensis was common all over and 1 Danaus plexippus was seen as well as a few blackish swallowtails presumed to be P. kahli (RDR); also seen or captured were Thorybes pylades, Erynnis sp., Carterocephalus palaemon mandan, Poanes hobomok, Amblyscirtes vialis vialis, Artogeia napi oleracea, A. rapae, Euchloe ausonides mayi, Colias sp., C. eurytheme, Incisalia augustinus augustinus, I. polios, Everes amyntula albrighti, Glaucopsyche lygdamus couperi, Agriades franklinii rustica, Clossiana bellona toddi, C. frigga saga, C. freija freija, Phyciodes tharos, Polygonia sp., Nymphalis antiopa antiopa, Vanessa cardui, Erebia epipsodea freemani (RDR).

MOTHS: Rosches report blacklighting in Riding Mtn Nat'l Park the evening of June 19. Anthracaea polyphemus was very common and several were collected. Smerinthus cerisyi was also very common and many were collected.

NORTH DAKOTA. The Prestons report that the season was 1 to 2 weeks late.

BUTTERFLIES: Slope Co., June 14, A. h. turneri, O. garita, C. inornata benjamini, and P. multicaudata. Same location, June 25, Megathymus texanus leussleri, common, C. inornata benjamini, fairly common, P. multicaudata, common but damaged, E. claudia and V. cardui, common but worn. Crown Butte Lake, Morton Co., July 18, S. aphrodite and C. pegala ino. Sweet Briar Lake, Morton Co., July 18, H. titus immaculosus, S. a. acadica, L. thoe, C. p. ino, C. g. carlotta, S. aphrodite mayae, S. c. pseudocarpenteri and L. eurydice. Burning Coal Vein area, Slope Co., July 19-21, E. v. metacomet, A. d. lagus, P. bairdi f. brucei(?), P. multicaudatus, S. m. franki, L. w. oberfoelli all damaged, S. aphrodite mayae, S. c. pseudocarpenteri, E. cymela cymela, C. pegala ino very common, C. oetus charon, Z. cesonia (CO. RECORD, H. titus immaculosus, S. a. acadica, E. lucilius afranius, Chlosyne acastus, S. liparops aliparops, H. comma assiniboia, P. origenes and Speyeria idalia (first recorded in several years).

SOUTH DAKOTA. The season seemed to be about 2 weeks late (JFP).

BUTTERFLIES: The Prestons reported for Custer Co., Custer State Park, June 11-12; P. zelicaon gothica, P. bairdi f. brucei, P. rutulus and I. eryphon eryphon. The Rosches reported Incisalia polios obscurus was very common and swarming about bearberry in the Mt. Coolidge area of the Black Hills, Custer County on May 27. Lincoln Co; Little Spearfish Canyon, June 26-29, P. rutulus, P. eurymedon, P. indra, P. melissa melissa, G. l. oro, P. tharos, Euchloe ausonides palaoreios, E. amyntula valeriae, P. mylitta barnesi (JFP); July 26-27, Eurema mexicana, E. clarus, C. alexandra krauthii, and S. atlantis lurana; Deer Mtn., S. W. of Lead, June 30, E. a. palaoreios, P. nitra, P. z. gothica, P. eurymedon and S. edwardsi; Deer Mtn., July 24-25, P. z. gothica, S. alexandra krauthii, E. amyntula valeriae, S. a. lurana, L. w. oberfoelli, C. i. benjamini, P. saepiolus amica, P. icarioides lycea, Nathalis iole and P. zephyris (JFP). FALL RIVER CO. Records; Erynnis afranius, July 8, 10 mi. W. of Oelrichs (RDR); Oarisma garita garita, July 8, Battle Mt. at Hot Springs (RDR); Hesperia ottoe, July 8, 10 mi. W. of Oelrichs (RDR); Atrytonopsis hianna turneri, June 3, Battle Mt. (RDR); Amblyscirtes simius, July 8, Battle Mt. and Cascade Springs (RDR); Pontia sisymbrii nordini and Euchloe olympia, May 14, Battle Mt. (RDR); Nathalis iole, Sept. 10, Red Canyon NE of Edgemont (RDR); Hyllolycaena hyllus, July 8, Rt. 71 at Cheyenne River (RDR); Incisalia eryphon eryphon, and Glaucopsyche lygdamus oro, May 27, Battle Mt. (RDR); Limenitis wiedemeyerii oberfoelli, June 11, Battle Mtn, sight record only (JFP); Phyciodes campestris, July 8, Battle Mt. (RDR); Occidryas anicia bernadetta, May 27, Battle Mt. (RDR); Oeneis uhleri, May 14, Battle Mt. (RDR). Also of interest, a single Megathymus texanus leussleri collected July 8, 10 mi W. of Oelrichs (RDR). SHANNON CO. Records, all by RDR; Atalopedes campestris, Sept. 18, 5 mi. N. of Sharp's Corners; Gaedies xanthoides diane, July 29, Wakapamni Community; H. hyllus, July 29, Wakapamni Community; Epidemia helioides, Sept. 18, east end Cuny Table; Speyeria edwardsii, Sept. 18, 5 mi N. of Sharp's Corners; Phyciodes tharos, July 29, Wakapamni Community; Aglais milberti, Sept. 18, 5 mi. N. of Sharp's Corners; Vanessa atalanta rubria, Sept. 18, 5 mi N. of Sharp's Corners, also at Loneman Community; Limenitis archippus archippus, Sept. 18, 5 mi. N. of Sharp's Corners; plus a very early individual of Pieris protodice on Mar 11 at Loneman--it was 70 degrees that day with high winds (next day it snowed and did the same well into May). David L. Eiler reports from Sand Lake Nat'l Wildlife Refuge, Brown Co., August 2, thousands of Colias philodice on a damp gravel road, Colias eurytheme, Speyeria a. mayae, S. idalia, Phyciodes tharos, Vanessa cardui and Cercyonis pegala ino; From 2 mi. E. of Belle Fourche on US 212, Butte Co., August 3, Ochloides sylvanoides napa, Agraulis vanillae (N. range extension?), Euptoieta claudia and C. p. ino, plus sightings of P. tharos and V. cardui; Waubay Nat'l Wildlife Refuge, Day Co., August 1, Wallengrenia egeremet, Atrytone arogos iowa, A. logan lagus, Euphyes ruricola metacomet, Pterourus glaucus, Hemiargus isola, Everes comyntas, Lycaeides melissa, Speyeria cybele, S. idalia, Phyciodes tharos, Polygonia interrogationis, Basilarchia arthemis, (one specimen looks like rubrofasciata; two look like astyanax x rubrofasciata intergrades; one looks like astyanax x arthemis intergrade), Asterothrips celtis, and C. p. ino, plus sightings of Epargyreus clarus, Artogeia rapae, Colias philodice, C. eurytheme, S. a. mayae, V. cardui and Danaus plexippus; Also from SR 65 at SR 20 near Ziebach Co. Line, Dewey Co., Aug 3, Pholisora catullus, P. protodice, C. eurytheme, L. melissa, E. claudia, P. tharos and sightings of V. cardui (DLE).

NEBRASKA. Rosche summarized the high points for the state's collecting as follows: Papilio indra; uncommon but regular in Sioux County canyons (Monroe and Sowbelly and vicinity) from May 28 to June 9; two individuals representing a probable second brood were noted at Sowbelly on August 1 and another was at Sowbelly on Aug. 15; This species was "rediscovered" in those areas in 1982, after an absence of records since 1919. Many out-of-area collectors visited these canyons and were successful in obtaining specimens. Pontia sisymbrii nordini; an excellent year with many dozens collected in Monroe and Sowbelly Canyons, Sioux County by various collectors, May 8 to June 11. Zerene cesonia; one collected July 16 in East Ash Creek canyon, Dawes Co. (RDR); two each in Monroe and Sowbelly Canyons, Sioux Co. on August 1 (CDF, RDR); A good catch this far west in Nebraska. Neophasia menapia; A male and a female on Aug. 1 in Sowbelly Canyon (CDF, RDR)--the first known specimens for the state since 1965. Leptotes marina; Three on Sept. 16 in the Clear Creek State Game Mgt. Area, Keith Co. (RDR); Apparently unknown previously this far west in the State. Nymphalis vau-album j-album; One in Chadron, DAWES CO. on Sept. 17 (RDR); Previously known only from Sioux County, where the last was taken in 1964. Vanessa cardui; A banner year for this species, being seen everywhere starting on April 23; Maximum numbers were noted on May 10 when 400 were estimated in a 15-mile stretch of highway between Chadron and Whitney, Dawes County. Vanessa annabella; One on Sept. 6 about two miles north of Horn, Dawes Co. and another on Sept. 16 about 3 miles east of Lewellen, Garden Co. (RDR); A good catch anytime, anywhere in the State. Only 2-3 previous records for this western species. Junonia coenia; One on Sept. 16 in the Clear Creek marshes in Keith County (RDR); There are very few records for Western Nebraska. In the following accounts (COUNTY) signifies new county record and

(STATE) is a state record, or the capitalization of the county name indicates a county record.

BUTTERFLIES: For the Pine Ridge area, Monroe and Soubelly Canyons, 3900'-4400', Sioux Co., Ferris reports species not reported for 1983 (All 1982 species also present); *Amblyscirtes oslari*, June 30-July 1; *A. simius* June 30-July 11 (STATE); *Ancyloxypha numitor*, Aug. 15-16, (COUNTY); *A. hianna turneri*, July 1; *E. afranius*, May 27-29, July 21-Aug. 1; *P. hobomok*, July 1; *P. mystic dakotah*, July 22-25; *T. pylades*, July 1; *H. comma* ssp., Aug. 15-16; *H. p. pahaska*, May 30-July 1, July 21; *P. i. indra*, May 28, July 1 (1st brood), Aug. 1, (2nd brood); *P. z. nitra*, May 27-29; *N. m. menapia*, Aug. 1; *P. s. nordini*, May 27-29; *N. iole*, Aug. 16 (COUNTY); *Z. cesonia*, July 22, Aug. 1 (COUNTY); *C. argiolus* ssp., May 27-29; *L. marina*, Aug. 15; *C. r. longei*, July 21, 25; *E. comyntas*, Aug. 1; *G. x. dione*, July 22; *H. titus* ssp., July 25; *H. i. alce*, July 1, Aug. 1; *H. hyllus*, July 1, Aug. 15; *I. acmon* ssp., Aug. 1; *I. s. minnehaha*, June 30-July 1; *M. s. siva*, June 30-July 1; *S. a. montanensis*, July 21, 25; *E. helloides*, Aug. 15 (COUNTY); *A. milberti*, June 30; *D. plexippus*, June 21, 22; *P. a. arachne*, June 30-July 1; *P. comma*, July 25, Aug. 1; *P. interrogationis*, May 28; *V. virginensis*, June 30. For Valentine, CHERRY CO. June 10, Rosche reports *P. hobomok*, *P. glaucus*, *I. e. eryphon*, *V. cardui*. For GARDEN CO. at Clear Creek marshes, Sept. 16, per Rosche, *A. rapae*, *N. iole*, *E. comyntas*, *V. cardui*, *V. annabella*, *B. archippus* (Sept. 19). For KEITH CO. in Clear Creek Game Mgt. Area on Sept. 16, Rosche also reports *P. themistocles*, *H. hyllus*, *E. helloides*, *S. melinus*, *L. marina*, *J. coenia*. Near Hay Springs, SHERIDAN CO., July 25, Rosche found *E. c. clarus*, *A. l. lagus*, *E. r. ruricula*. At University Lake, near Mitchell, SIOUX CO., Rosche found *E. bimacula* on July 14 and flying with *S. a. acadica* on Aug. 2. Stanford reported the following; *P. sisymbrii*, Wildcat Hills Park, 4500' elevation, Hwy 71 S. of Scottsbluff, SCOTTSBLUFF CO.; *V. atalanta*, 6 mi NNW of Kimball, Hwy 71, 4900', KIMBALL CO. and; *V. cardui*, same locality, large number migrating S to N; also *V. cardui*, single record, Sidney, Cheyenne Co. also at Wildcat Hills, Banner-Scottsbluff Co. line at Hwy 71. Rosche also reports *A. oslari* at W. Ash Creek Can., DAWES CO. on June 11, plus *I. icarioides lycea*, some data. From Cheyenne Co. on Aug. 19, Eiler reports *P. communis*, *P. protodice*, *C. philodice*, *E. claudia*, *S. idalia*, *V. cardui*, *C. pegala*, *D. plexippus*. On the same day in Lincoln Co. DE reports *N. iole* common, *L. marina*, *P. batesii*. The Prestons report for Halsey, Blaine Co., June 8, *A. hianna turneri* common, and *M. siva siva*; Pine Ridge area, June 8-10, *E. anicia bernadetta*, *O. uhleri uhleri*, *P. s. nordini*, *P. indra*, and *P. nitra*. John Jordison reported for north Omaha, Douglas Co., Sept., the capture of *Zerene cesonia f. immaculsecunda*, and he also stated that the season was good for many species.

MOTHS: For the Pine Ridge area, in Monroe and Soubelly Canyons, 3900'-4400', Sioux Co., Ferris reports SATURNIIDAE - *Hyalophora gloveri*, May 27, *Coloradia pandora*, 15-26 Aug.; SPHINGIDAE - *Hyles lineata*, 1, 15-16 Aug.; ARCTIIDAE - *Hypoprepia miniata*, 1 Aug.; NOCTUIDAE - (all at sugar) *Catocala semirelicta-pura-meski* complex (2 species) 1, 15 Aug., *Catocala ultronica*, *Ascalapha odorata*, 1 Aug.; GEOMETRIDAE - *Nacophora mexicana*, 30 June. For 12 mi S. of Chadron, Dawes Co., Rosche reports LASTOCAMPIDAE - *Gloveria arizonensis*, July 14 (2nd year present); SATURNIIDAE - *Coloradia pandora*, July 31-Sept. 8 (peak Aug. 14), *Hyalophora cecropia*, July 5; SPHINGIDAE - *Manduca quinquemaculata*, Aug. 28, *Ceratomia amyntor*, July 20, *C. undulosa*, July 5-Aug. 4, (peak July 20), *Sphinx chersis*, Aug. 4, Aug. 10, *S. vashti*, May 31-Aug. 10, *Smerinthus jamaicensis*, one seen July 3, *Paonias myops*, July 7-Aug. 3, *Pachysphinx modesta*, July 13-Aug. 1, *Eumorphia achemon*, July 11-Sept. 12, *Darapsa myron*, July 14, 28, *H. lineata*, July 10 and Aug. 19-Sept. 9; NOCTUIDAE - *Ascalapha odorata*, July 20, *Catocala whitneyi*, Aug. 2. Other reports by Rosche include *M. quinquemaculata*, Sept. 10 at Bessey Forest, nr. Halsey, Thomas Co. and Sept. 27 in Chadron, Dawes Co., *S. chersis*, July 14, Wildcat Hills, Scottsbluff Co. and *H. lineata*, Clear Creek State Game Mgt. Area, Keith Co. From 12 mi S. of Chadron, Dawes Co., over the season, Rosche reports NOTODONTIDAE - *Nadata gibbosa*; ARCTIIDAE - *Hypoprepia miniata*, *Estigmene acrea*, *Turuptiana permaculata*, *Apantesis parthenice*, *Euchaetes egle*, *Ectypia clio*, *Pygarctia spraguei*, *P. eglenensis*; NOCTUIDAE - *Scoliopteryx libatrix*, *Diachrysia balluca*, *Amphipyra pyramidoides*, *Stiria rugifrons*, *Nycterophacta luna*, *Hydroeciodes serrata* plus numerous other unidentified specimens.

KANSAS. Reporting were Charles A. Ely (CAE), Alan W. Fish (AWF), Thomas Flowers (TLF), Ron Huber (RH), Lane Lindenmuth (LL), June and Floyd Preston (JFP), Marvin Rolfs (MR), Marvin Schwilling (MDS), James A. Steen (JAS), Troy Sturgeon (TS) and Tim Wagner (TW).

BUTTERFLIES: Three species were reported unusually common and widespread; *Heraclides cresphontes*, *Zerene cesonia*, and *Phoebis sennae*. Two other species were either in very low numbers or were unusually local; *Eurytides marcellus* and *Falcapita midea*. Many skippers were reported to be still in need of identification, so not included. The weather had a pronounced effect on many species. Emergence dates of mid May were reported for Barber Co, which had 2 feet of snow in early April, for *G. lygdamus jacki* which usually flies in early to mid April, and *Mitoura gryneus* was flying in Barber Co. before *G. l. jacki* whereas in a normal year the reverse is true (JFP). *Thessalia fulvia* was out in Barber Co. on May 12, about 2 weeks later than normal (JFP). A total of 55 species were reported by Jim Steen and Alan Fish. From the vicinity of Hutchinson, Reno Co, common species were *D. plexippus*, Aug. to Oct. (JAS, AWF); *A. celtis*, Aug.-Sept. (JAS); *L. a. archippus*, July to Oct. (JAS, AWF); *P. t. tharos*, Sept.-Oct. (JAS, AWF); *P. interrogationis* fm umbrosa, Sept. (JAS, AWF); *V. atalanta rubria*, Aug.-Sept. (JAS, AWF); *V. cardui*, Aug. to Nov. (JAS); *V. virginensis*, July-Aug. (JAS); *H. titus mopsus*, July (JAS); *S. melinus franki*, Aug. to Oct. (JAS, AWF); *L. melissa melissa*, Sept.-Oct. (JAS, AWF); *E. comyntas* July to Sept. (JAS, AWF); *L. marina*, Aug. to Oct. (JAS); *C. eurytheme*, July to Nov., LATE, (JAS, AWF); *P. senna eubule*, July to Oct. (JAS); *E. lisa*, July to Oct. (JAS, AWF); *N. iole*, July to Oct. (JAS, AWF); *P. p. protodice*, July to Nov. LATE (JAS, AWF). *C. pegala texana*, July to Sept., LATE (JAS, AWF). Scarce and uncommon were *D. gillippus strigosus*, July 10, '82 (JAS); *A. andria*, Sept.-Oct. (JAS, AWF); *P. c. coenia*, Aug. 19 (JAS); *C. gorgone carlota*, Sept. (JAS); *E. claudia*, Aug.-Oct. (JAS); *S. c. cybele*, July 26 (JAS); *S. idalia*, July-Aug. (JAS); *H. isola alce*, Aug.-Sept. (JAS, AWF); *E. nicippe*, July to Oct. (JAS). From southern Rice Co, in addition to several of the above mentioned species were *P. polyxenes asterius*, July-Aug. (JAS) and *E. clarus*, Aug. (JAS) uncommon, plus *T. bathyllus*, Aug. (JAS) and *P. c. communis*, July-Aug. (JAS, AWF), common. Near Wellington, Sumner Co., *P. g. glaucus* was found to be uncommon in June (JAS). The following County Records were reported: *Euphyes dion*, Sept., LINN CO. (RH); *Copaodes aurantiaca*, ELLIS CO., 29 Aug. (CAE), HARVEY CO., 1 Oct (CAE); *Hesperia ottoe*, SCOTT CO., 12 July (CAE), SHERIDAN CO., 21 July (CAE); *Problema byssus*, CHASE CO., 28 July (MDS); *Atrytonopsis hianna turneri*, LANE CO., 28 May (CAE); *Amblyscirtes oslari*, COMANCHE CO., 17 May (MDS); *Kricogonia lyside* (only one encountered all summer!), WALLACE CO., 10 May (MDS); *Eurema mexicana*, GREELY CO., 13 July (CAE); *Harkenclenus titus mopsus*, CHASE CO., 29 June (MDS), OSBORNE CO., 6 July (CAE), SCOTT CO., 12 July (CAE); *Satyrion acadica*, GRAHAM CO., 21 July (CAE); *Calycopis cecrops*, WOODSON CO., 16 August (MDS); *Glaucopsyche lygdamus jacki*, COMANCHE CO., 11 May (MDS); *Agaulis vanillae*, FORD CO., 25 Sept. (LL), MEADE CO., (no date) (TLF); *Thessalia fulvia*, 28 May-21 July, several localities North to within 2 miles of Nebraska border, west to STANTON CO. (CAE); *Vanessa annabella*, (the 3rd specimen found) ELLIS CO., 11. Oct. (CAE), THOMAS CO., 16 Nov. (MR); *Mestra amymone* (only one encountered all summer), MEADE CO., 24 Sept. (TS); *Danaus gilippus*, GRAHAM CO., 21 July (CAE), HAMILTON CO., 14 July (CAE), STANTON CO., 5 Sept. (TW).

OKLAHOMA. The following report was received from Chuck Harp (CEH), Cindy L. Harp (CLH), and Kent Wilson (KW).

BUTTERFLIES: *Battus philenor*, Arbuckle Mts., Murray Co., 26 May (CEH); *Graphium marcellus*, NE of Newkirk, Kay Co., 5 July and 27 Aug. (on *Asimina triloba*) (CEH, KW); *Papilio polyxenes asterius*, NE of Okla. City, Okla. Co., 31 May, 20

June (CEH); Papilio troilus, Gans, Sequoyah Co., 12 Aug., associated with Sassafras, (CEH, CLH); Euchloe olympia rosa, Oklahoma Co., 12-19 April, common (CEH); Falcapica m. midea, Okla. Co., 15-22 April (CEH); Zerene c. cesonia, Arbuckle Mts., Murray Co., 26 May (CEH); Phoebis sennae eubule "browni", NE Okla. City, Okla. Co., 18 August (CEH); Phoebis a. garithe, N. Okla. Co., 29 Sept. (CEH); Eurema mexicana, Nr. Black Mesa State Pk., Cimarron Co., 26 June (CEH, KW); Abaeis nicippe, Okla. Co., 31 May, 20 June (CEH); Hylolycaena hyllus, Boise City, Cimarron Co., 26 June (CEH, KW); Gaeides xanthoides dione, Enid, Garfield Co., 30 May (CEH); Phaeostrymon alceste, Okla. Co., 8-18 June, common around food plant, (CEH); Harkenclenus titus mopsus, Luther, Okla. Co., 22 June (on Asclepias tuberosa) (CEH); Satyrus calanus falacer ab. "snowii", Luther, Okla. Co., 12 June (CLH); Mitoura gryneus, Guthrie, Logan Co., 20 April, 12 July (CEH); Incisalia henrici turneri, Edmond, Okla. Co., 17 April (CEH); Euristrymon ontario autolytus, Luther, Okla. Co., 10-18 June (CEH, CLH); Hemiargus isola, Luther, Okla. Co., 19 Aug. (CEH); Everes c. comyntas, Kay Co., 5 July (CEH, KW); Icaricia acmon, Black Mesa State Pk., Cimarron Co., 26 June (CEH, KW); Libytheana b. bachmanii, Luther, Okla. Co., 10 June (CEH); Heliocoonius charitonius vazquezae, NE Okla. City, Okla. Co., 18 August 1982 (CEH); Thessalia fulvia, Black Mesa State Pk., Cimarron Co., 26 June (CEH); Chlosyne lacinia adjutrix, NE Okla. City, Okla. Co., 19 Sept., 3 Oct. (CEH); Anthanassa texana seminole, NE Okla. City, Okla. Co., 15-19 Aug. (CEH); Phyciodes phaon, Arbuckle Mts., Murray Co., 26 May (CEH); Asterocampa antonia, Nr. Black Mesa State Pk., Cimarron Co., 26 June (CEH, KW); Euptychia gemma, Okla. Co., 23 Sept. (CEH, CLH); Megathymus texana, Nr. Black Mesa State Pk., Cimarron Co., 26 June (CEH).

MOTHS: Taken at MV light. Antheraea polyphemus, Luther, Okla. Co., 8-10 April (CEH); Hyalophora cecropia, Luther, Okla. Co., 27 April (CEH); Automeris io, Luther, Okla. Co., 27 April (CEH).

TEXAS. BUTTERFLIES: Floyd and June Preston reported for the following areas in Texas; Davis Mts., Jeff Davis Co., 21 May, due to dry conditions few species were present; Big Bend area, Brewster Co., 23-24 May, very dry, only K. lyside and H. isola were common; E. of El Paso, Hudspeth Co., 25 May, a very large number of V. cardui were found, mostly nectaring on mint beside the highway; Palo Duro Canyon, Randall Co. 28-29 May, area very dry, Megathymus texanus texanus and Hesperia juba were collected in small numbers, P. protodice and V. cardui were abundant. Paul Tuskes reported the following for the Santa Ana-Bentsen State Park area, Hidalgo Co., 2-6 Nov; Doxocopa laure, Myscelia ethusa, Mestra amymone, Phyciodes frisia tulcis, Chlosyne janais, Papilio anchisiades, Euptoieta hegesia, Siproeta stelenes, Danaus eresimus, Ascia josephina, Anteos maerula, Phoebis statira jada, and Melanis pike. George W. Busby III reported that he and Mike Rickard took a number of collecting trips in Texas and the following represented their best catches; Big Bend, Brewster Co., 25 June, Poanes taxiles, (MAR); Davis Mts., Jeff Davis Co., 28 June, Ministrymon leda, common (MAR, GWB); Penitas, Hidalgo Co., 23 Oct., Allosmaitia pion, a very good male, 2nd. U.S. capture (GWB); Pontia sisymbrii was taken by George Balogh in El Paso, March 28--This is a STATE record; He also took Euchloe hyantis on the same day.

MOTHS: Paul Tuskes reports Hemileuca grotei, 19-20 Nov., Bee Cave, Travis Co., Lampasas, Lampasas Co., 7 mi SE Briggs, Williamson Co; Hemileuca maia and H. grotei, 10 mi SE Lampasas; Anisota fuscata, A. discolor, E. imperialis, C. regalis, A. luna, A. polyphemus and A. io, 3 Sept, Camp Allen, Waller Co; E. calleta, 4 Mar, Beeville, Bee Co.; Sphingocampa blanchardi, 2-5 Nov., Santa Ana W.L.R., Hidalgo Co. Sam Johnson reared several Catocala piatrix on Walnut at Austin, Travis Co. John Kemner collected the following species of Catocala 6 mi W. of Dripping Springs, Hays Co., May-July, at UV light; C. consors, C. neogama loreta, C. ilia, C. deliah, C. messalina, C. herodias, C. coccinata, C. verrilliana, C. similis, C. micronympha, C. amica, C. lineella, C. nerissa and C. jair. Ed Knudson caught a fresh female Catocala flebilis near Tennessee Colony, Anderson Co., 3 July, which is a new STATE record. H. A. Freeman reports collecting from 22 May to the 14 Oct. at his home, 1605 Lewis Drive, Garland, Dallas Co. The following Catocala were collected by the use of bait on trees, bait traps, MV light and resting on the trees and shrubs; C. alabamiae, C. amatrrix f. "selecta", C. amica, C. agrippina, C. consors, C. epione, C. ilia, C. innubens, C. lacrymosa, C. lineella, C. maestosa, C. micronympha, C. muliercula, C. neogama loreta, C. nerissa, C. piatrix, C. ulalume, C. ultronis and C. vidua. Also on Dec. 8, Erranis tiliaria (HAF), (prob. new STATE record, GEOMETRIDAE). All of the following reports are from Ed Knudson. Engeling Wildlife Management Area, Anderson Co., March 14, 15; Acronicta funeralis and noctivaga, Eutolype electilis, Cerma cora, Orthosia hibisci (NOCTUIDAE); Drepana arcuata, (probable new STATE record) (DREPANIDAE); Hethemia pistasciaria, (possible new STATE record), Anticlea multifurcata, Ceratomyx satanaria (GEOMETRIDAE); Chimoptesis gerulae and pennsylvaniana, Satronia tantilla, Serda tautana (TORTRICIDAE); Same locality, July 2, 3; Callopietria cordata, Schinia crenilinea, Exyra semicrocea, Allagrapha aerea, Catocala flebilis, ulalume, epione, muliercula, similis, consors, grynea, and micronympha, Lomanaltes eductalis (NOCTUIDAE); Schizura badia (NOTODONTIDAE); Semiothisa eremiatra or close, Exelis dicolus (GEOMETRIDAE); Eudonia heterosalis (PYRALIDAE); Same locality, Oct. 7; Lacinipolia meditata, implicata, and renigera, Trichoclea ruisa, Chytonix sensilis, Feltia jaculifera, subgothica, and geniculata (NOCTUIDAE); Peoria longipalpella, Surattha indentella, Diatraea lisetta (PYRALIDAE); Conroe, Montgomery Co., March 13; Eupithecia peckorum, Tacparia zalissaria (GEOMETRIDAE); Same locality, April 10; Zale curema and confusa (NOCTUIDAE); Nemoria elfa (GEOMETRIDAE); Big Bend Nat'l Park, Brewster Co., March 27, 28; Nemoria subsequens, Astalotesia bucurvata, Hymenodoria mediodontata, Ersephila grandipennis and indistincta, Cyclica frondaria (GEOMETRIDAE); Cosmopterix montisella (COSMOPTERIGIDAE); Same locality, August 9, 10; Stiria blanchardi, Miracivira brillians, Eutelia furcata (probable new STATE record), Tarachidia clausula (possible new STATE record), Acontia lucasi, Fotella notialis (NOCTUIDAE); Scybalistodes regularis (probable new STATE record, PYRALIDAE); Hypopta palmata (second STATE record, COSSIDAE); Acrolophus furcatus (TINEIDAE); Ft. Davis (FD), Mount Locke (ML), Jeff Davis Co., Aug 8; Ecpantheria suffusa (FD) (ARCTIIDAE); Cucullia lilacina and intermedia (ML), Nacopa melanderi and bistrigata (FD), Catocala piatrix (FD) and delilah desdemona (ML), Zale chisosensis (ML) (NOCTUIDAE); Litodonta alpina, Schizura biedermeini (FD) (NOTODONTIDAE); Nemoria arizonaria, Eupithecia ornata, and Nepterotaca memoria (FD) (GEOMETRIDAE); Santa Ana Refuge, Hidalgo Co., May 14; Eumorphia vitis and satellitica (SPHINGIDAE); Tripudia limbata, balteata, and versuta (NOCTUIDAE); Heterusia atalantata (GEOMETRIDAE); Givira theodori (COSSIDAE); Same locality, Oct 31; Isogona natatrix and scindens, Anomis impasta, Melipotis nigrobasis, Lesmone fufius (NOCTUIDAE); Hoterodes ausonia, Synclera jarbusalis, (PYRALIDAE); Bentsen St. Pk., Hidalgo Co., Oct. 30; Elaphria agrotina, Mimophisma delunaris (NOCTUIDAE); Bellaire (EK backyard), Harris Co., Sept. 20-27; Coenipeta bibitrix (NOCTUIDAE); Stemorrhages costata (PYRALIDAE); Emmelina monodactyla, Stenoptilodes crenulata (PTEROPHORIDAE); Same locality, Nov. 3-15; Diasemiopsis leodocusalis (PYRALIDAE); Lioptilodes parva, Stenoptilia zophodactyla (PTEROPHORIDAE).

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ZONE 5 EASTERN MIDWEST: MISSOURI to MINNESTOA to MICHIGAN to WEST VIRGINIA. Coordinator: M. C. Nielsen. Contributors: J. Bess (JB), C. Burkhart (CB), J. Calhoun (JC), R. Dana (RD), D. Eiler (DE), L. Ferge (LF), L. Gibson (LG), D. Hess (DH), J. Jordison (JJ), L. Koehn (LK), R. L. Langston (RL), R. Leary (RL), R. Leuschner (L), V. Lucas (VL), L. Martin (LM), M. McInnis (MM), W. Miller (WM), J. Mouw (JM), S. Mueller (SM), M. Nielsen (MN), J. Parkinson (JP), D. Parshall (DP), F. & J. Preston (FP), J. Shuey (JS), E. Shull (ES), J. Slotten (JS), J. Wiker (JW), J. Wilkie (W). Other collectors cited: R. Borth (RB), I. Leeuw (IL), O. Pellmyr (OP), J. Perona (P), A. Porter (AP), Y. Sedman (YS), W. Westrate (WW). More collectors responded this year giving the Zone good coverage. All reported one of the mildest winters of record with below average precipitation. Spring in most states was colder and wetter than normal,

delaying many spring butterflies. Summer was extremely hot and dry impacting the season in general. Many experienced below average collecting for many species of moths and butterflies. V. cardui exploded throughout the Zone (perhaps enhanced by the mild winter?). Other southern strays that made a good appearance throughout were: H. pylaeus, Z. cesonia, P. lisa, E. claudia and P. coenia, and several moth species--a marked change from last year! Many reported Lycaenidae and Nymphalidae, especially Polygonia, down from normal. D. plexippus was not common again in the Zone; only one fall concentration was reported. While Catocala continued below average, some collectors reported increasing numbers, especially at bait. All new county records have the county capitalized. Only choice data are reported here.

MISSOURI. No reports!

KENTUCKY. Four collectors filed reports. Gibson reported butterfly populations down because of the extremely dry summer, causing a lack of water in many sloughs and streams.

BUTTERFLIES: A. cellus, 30 May-3 July, Knox & Menifee Co. (LK, JC); E. horatius, 5 May, 9-11 Sept., Henderson, Menifee & Union Co. (LG, LK, VL); E. funeralis, 10 Sept., Henderson Co. (LG); E. baptisiae, 11 Sept., Fulton Co. (VL); P. communis, 9-10 Sept., Henderson & Union Co. (VL); N. lherminier, 9 Sept., Union Co. (VL); L. accius, 27 Aug.-11 Sept., Fulton Co. (JC, LG, VL); A. logan, P. zabulon, 27 Aug.-11 Sept., Fulton & Henderson Co. (nectaring on Mikania scandens--LG); E. dion, 27 Aug.-11 Sept., Fulton Co. (LG, VL); A. aesculapias, 29-31 May, Menifee Co. (JC); P. ocola, 27 Aug., Fulton Co. (LG); P. protodice, 9-11 Sept., Fulton & Union Co. (JC, LG, VL); A. virginianensis, F. midea, 5-6 May, Harlan & Menifee Co. (LK); Z. cesonia, 9-11 Sept., Fulton, Graves, Henderson & Union Co. (LG, VL); P. sennae, A. nicippi, 9-11 Sept., Henderson Co. (LG); N. iole, 10-11 Sept., Graves, Fulton & Union Co. (JC, VL); C. cecrops, 9-11 Sept., Henderson Co. (LG); M. gryneus, I. henrici & niphon, 6 May, Harlan Co. (LK); C. ebenina, C. borealis, 3 July, Knox Co. (LK); S. diana, 2 July, Whitley Co. (LK); E. creola, 27 Aug.-11 Sept., Fulton Co. (LG, VL); E. portlandia missarkee, 27 Aug., Fulton Co. (1-LG); S. appalachia, 27 Aug.-11 Sept., Fulton Co. (LG, VL); C. gemma, 6 May, Harlan Co. (LK); N. sosybius, 3 July, Harlan & Knox Co. (LK).

MOTHS: C. hageni, 9-11 Sept., Henderson Co. (LG, VL); E. fasciata, 9-10 Sept., Henderson Co. (LG); H. lineata, 11 Sept., Graves Co. (W); S. henrici, 9-11 Sept., Henderson Co. (LG, VL); P. marginidens, P. buffaloensis, A. delecta, 9-11 Sept., Henderson Co. (LG); C. maestosa & piatrix, 27 Aug.-11 Sept., Fulton & Henderson Co. (LG). STATE RECORDS (LG): Faronta rubripennis, Lineodes integra, 10-11 Sept., Henderson Co.

WEST VIRGINIA. Two brief collecting accounts were received.

BUTTERFLIES: H. sassacus, P. mystic, C. interior, C. neglecta major, 11 July, Tucker Co. (VL); S. atlantis, 6-11 July, Pocahontas & Tucker Co. (DE, VL).

MOTHS: S. kalmiae, H. undulata, R. hastata f. gothicata, 11 July, Tucker Co. (VL).

OHIO. Eight collectors filed reports--the best for the Zone. Lucas reporting for northeastern Ohio saw a mild winter with below average snowfall, with spring emergents delayed up to 2 weeks. He found E. juvenalis and P. zabulon populations down drastically. Martin, for north-central Ohio, found winter one of the mildest and driest of record with some hibernating A. milberti, N. antiopa and P. comma appearing in early March. By the end of May, Martin recorded only 12 butterfly species, down by 43% from an average year! Calhoun in southern Ohio experienced an early spring and a hot, dry summer. From 19 July to 8 Oct., he recorded 57 butterfly species in Lawrence Co. Parshall compiled a detailed list of butterflies from 12 central to southeastern counties which included 51 new county records. All reported V. cardui to be very common throughout their areas. Martin reported a large congregation of D. plexippus in Huron Co. from 20 Aug. to 8 Sept., in and along the edge of damp woods; the Monarchs nectared in 10 to 12 acres of Trifolium pratense, but dispersed upon cutting of the clover.

BUTTERFLIES: A. cellus, 22 June, Vinton Co. (JS); S. hayhurstii, 2-9 Aug., LAWRENCE CO. (JC); E. horatius, 26 Aug.-3 Sept., Vinton Co. (2nd record--DP); E. baptisiae, 9 July-7 Oct., Franklin, Hamilton, Lawrence & VINTON Co. (JC, VL, LM); E. persius, 10 June, Lucas Co. (JS); P. communis, 8 Oct., SCIOTA CO. (JC); N. lherminier, 14 Aug.-3 Sept., Jackson, LAWRENCE, Noble & Vinton Co. (JC, VL, DP); H. phyleus, 9 Aug.-7 Oct., Hamilton & LAWRENCE Co. (JC, VL); H. leonardus, 26 Aug.-3 Sept., Vinton Co. (DP); A. campestris, 19 July-8 Oct., GALLIA, Hamilton, Jackson, Lawrence & VINTON Co. (JC, VL); P. viator, 16-26 July, Ashtabula, Huron, MORROW, Portage & UNION Co. (LK, VL, LM, DP); E. dukesi, 10-23 July, DELAWARE, Huron, Logan, MARION, Paulding, Union & Wyandot Co. (LG, LM, MM, DP); P. ocola, 7 Oct., LAWRENCE CO. (JC); P. protodice, 1-8 Oct., LAWRENCE CO. (2nd record in state since 1966--JC); A. virginianensis, 6-21 May, Ashtabula, Cuyahoga, Lorain & Summit Co. (VL, LM); P. lisa, 22 July-8 Sept., Athens, Hamilton, Huron, Jackson, Marion, Preble, Scioto, Union & Vinton Co. (RLL, VL, LM, DP); F. tarquinius, 18 May-11 July, 13-19 Aug., Ashtabula, Huron, Jackson, SCIOTO & Vinton Co. (RLL, VL, LM, DP); E. helloides, 16-18 July, Lucas & Wyandot Co. (LK, LM, DP); C. cecrops, 8-15 Aug., Jackson & LAWRENCE Co. (JC, VL); C. ebenina, 6 May, Vinton Co. (DP); L. melissa samuelis, 25 July, Lucas Co. (JS); C. borealis, 9 July, Franklin Co. (LM); E. claudia, 26 July-17 Oct., HARRISON & LAWRENCE CO. (JC, DP); S. idalia, 11 July, Erie Co. (LM); J. coenia, 8 Aug.-15 Oct., COCHOCTON, Huron & LAWRENCE Co. (JC, LM, DP); S. eurydice, 6 July-13 Aug., Clark, Delaware, Huron, KNOX, LOGAN & Morrow Co. (VL, LM, DP, JS); S. appalachia leeuwi, 3-17 July, Cuyahoga, DELAWARE, Huron, Logan & Marion Co. (L, LM, DP); C. gemma, 19 Aug., Athens Co. (DP); H. sosybius, 2-14 Aug., LAWRENCE (common), & Vinton (2nd yr. for county) Co. (JC, DP).

MOTHS: P. plebeja, 13 Aug., Jackson Co. (VL); P. astylus, 11 July, Vinton Co. (MN); D. versicolor, 12 July, Vinton Co. (JC); C. regalis, E. imperialis, 2-11 July, Butler & Vinton Co. (RLL, MN); A. funeralis fm. fuscalis, C. clintoni, 10-11 July, Vinton Co. (MN); P. oculatrix, 17 Aug., Cuyahoga Co. (VL); A. lepusculina, 14 Aug., Jackson Co. (VL); C. gloveri, 12 July, Butler Co. (RLL); P. vernata, 18 Mar., Cuyahoga Co. (VL); P. phlogosaria fm. keutzingaria, 21 May, Ashtabula Co. (VL); P. alcoolaria & fervidaria fm. arrogaria, 10 July, Vinton Co. (L); L. molliculata, 15 July, Butler Co. (RLL); O. definita, 10 July, Vinton Co. (L); D. julianalis, 1 Sept., Cuyahoga Co. (VL); P. acronalis, 28 Aug., Cuyahoga Co. (VL); P. flavidalis, 14 Aug., Jackson Co. (VL); C. laqueatellus, 24 May, Cuyahoga Co. (VL); C. uniformis 10 July, Vinton Co. (L); A. purpurana, 6 Aug., Cuyahoga Co. (VL); P. pithecium, 11 July, Cuyahoga Co. (VL).

STATE PREDATOR RECORD (VL): Tolyte larcis, 21 Aug., preyed upon by common house spider, Achaearanea tepidar, at building light, Cuyahoga Co.

INDIANA. Eiler and Shull submitted detailed reports, and experienced a mild winter, followed by a cold wet spring, and the driest summer in 100 years! Shull collected 80 butterfly and 252 moth species, despite the poor weather. He found V. cardui abundant 10 May-10 Oct., with hundreds migrating in early Oct. in Wabash Co. Eiler's report included detailed information of each collecting site.

BUTTERFLIES: A. lyciades, 16 June, Orange Co. (DE); E. lucilius, 11 May, Wabash Co. (ES); N. lherminier, 13 Sept., Brown Co. (ES); H. phyleus, 2 Aug., Marion Co. (ES); H. leonardus, 13 Sept., Brown Co. (ES); P. massasoit, 7-21 July, LaGrange & Wabash Co. (DE, ES); A. logan, E. dion & conspicua, 21 July, LaGrange Co. (DE, ES); P. protodice, 22 Aug., Newton Co. (DE); P. lisa, 5 July-3 Aug., Brown, Hamilton & Franklin Co. (RLL, ES); F. tarquinius, 15 July, Elkhart Co.

(CB); E. dorcas, 21-24 July, LaGrange Co. (DE, ES); H. hyllus, 18 June, 24 Sept., Kosciusko & Union Co. (DE, ES); S. acadicum, 7-21 July, LaGrange & Wabash Co. (DE, ES); S. caryaeorum, 7 July, Kosciusko Co. (ES); M. gryneus, 18 June, Union Co. (ES); I. henrici, 24 Apr., Tippecanoe Co. (DE); E. claudia, 15 July, Union Co. (ES); C. selene myrina, 24 July, Wabash Co. (ES); E. phaeton, 21 June-21 July, LaGrange & Wabash Co. (DE, ES); J. coenia, 5 July, Union Co. (RL); S. eurydice & appalachia leeuwi, 21 July, LaGrange Co. (DE).

MOTHS: C. hageni, 22 Aug., Union Co. (ES); D. versicolor, 14-15 July, Porter & Union Co. (L, ES); C. angulifera, 16 July, Union Co. (ES); S. bisecta, 14 July, Union Co. (ES); C. regalis, 4 Aug., Brown Co. (ES); A. virgo, 15 June, Monroe Co. (DE); P. cerussata, 2 Oct., Fayette Co. (DE); A. elonympha, 3 Aug., Brown Co. (det. R. W. Poole--ES); B. doubledayi, 14 July, Porter Co. (L); F. marthesia, 14-15 July, Union Co. (ES); S. albifrons, 15-22 June, Monroe & Wabash Co. (DE, ES); C. sublunaria, A. pampinaria, P. titea, 22 Aug., Union Co. (ES); X. sospeta, 13 June, Wabash Co. (ES); E. affinata, 14 July, Porter Co. (L); D. obliquata, 7 June, LaGrange Co. (ES); D. definita, 12 Sept., Brown Co. (ES); O. rosea, 16 July, Union Co. (ES); A. torrefacta, 4 Aug., Brown Co. (ES); Schoenobis sp., 18 June, Union Co. (det. D. C. Ferguson--ES).

ILLINOIS. Only two reports of note were received. Hess experienced one of the mildest winters of record, followed by a cool, wet spring in west-central Illinois. Yet, from 1 June to 10 Sept., he reported 60 days over 90 degrees F. and 12 days over 100 degrees F! Hess found the season marked by low numbers of many resident butterfly species, especially spring and first broods, and high numbers of many migrant species. Polygonia and S. cybele were the lowest in 35 years of collecting and observing; Hess recorded 77 butterfly species, the lowest in many years. Wiker, reporting from Menard Co., collected N. antiopa on 22 Feb. and 2 Mar.--early dates for this species. Slotten reported on Catocala from the Chicago area; he has now collected C. briseis in three successive years, and believes it is now resident.

BUTTERFLIES: E. baptisiae, 27 May (male emerged nr. Baptisia leucophaea Nutt.), A. hianna, 27 May, Mason Co. (DH, YS); H. metea, 26 Apr., Green Co. (DH); H. ottoe, 21-28 June, CASS & Mason Co. (DH); H. leonardus-pawnee, 27 Aug.-12 Sept., McDonough Co. (DH); A. arogos, 28 June, Mason Co. (DH); P. verna, 24 June-11 July, Mason, McDonough & PIKE Co. (DH, YS); H. phyleus, 5 Sept.-15 Oct., Cass, HENDERSON & McDonough Co. (DH, YS); E. olympia, 6-10 May, Mason Co. (2nd Co. location--DH, YS); Z. cesonia, 17 June-15 Oct., Cass, Lake, Mason & McDonough Co. (DH, IL, YS); P. sennae eubule, 19 Aug.-15 Oct., Cass, McDonough & Pike Co. (DH, YS); P. lisa, 6 May-15 Oct., Brown, CASS, Fulton, Mason, McDonough & Pike Co. (DH, YS); A. nicippe, 5 Sept., Pike Co. (DH); F. tarquinius, 31 July, Menard Co. (JW); G. xanthoides dione, 21-29 June, CASS & MENARD CO. (DH, JW); S. edwardsii, M. gryneus, 11 July, McDonough Co. (YS); I. henrici, 20-25 Apr., MENARD CO. (JW); S. melinus humuli, 3 July-15 Oct. (LATE date), Cass & McDonough Co. (YS); S. idalia, 17-28 June, Mason Co. (DH, YS); C. bellona, 13-21 June, CASS & MCDONOUGH CO. (DH, YS); P. progne, 19 Sept., FULTON CO. (DH); A. andria, 2 Mar.-20 May, Mason, MCDONOUGH & MENARD Co. (DH, YS, JW); E. anthedon, 9 July-19 Aug., Cass & McDonough Co. (feeding on dead catfish--DH).

MOTHS: A. bicolor, 12-16 July, DuPage Co. (L); S. jaguarina, 21-28 June, CASS & Mason Co. (DH); C. briseis & luciana, 2-26 Sept., Cook Co. (JS); C. meskei, late July, Cook Co. (JS); C. minuta, 12-16 July, DuPage Co. (L); E. odora, 20 Sept., Menard Co. (JW); D. stecia, T. yuccasella, D. disclusa, A. quercifolia, 12-16 July, DuPage Co. (L).

FOODPLANT RECORDS (DH): A. logan, 19 Aug., Cass Co., ovipositing on Andropogon gerardi; P. cressphontes, 21 June, Cass Co., ovipositing on Zanthoxylum americanum; P. lisa, 28 June, Mason Co., ovipositing on Cassia fusciculata; Z. cesonia, 19 Aug., Cass Co., ovipositing on Amorpha fruticosa; V. cardui, 28 July-18 Sept., McDonough Co., ovipositing on Circium vulgare.

PREDATOR RECORDS: P. origenes, 11 Sept., McDonough Co. by Golden Garden Spider, Miranda aurantia, on Liatris sp.; P. themistocles, 12 Sept., McDonough Co., by Phymatid on Liatris sp.; P. coenia, 8 Sept., Hancock Co., by Miranda aurantia on Vernonia sp., and 12 Sept., McDonough Co., by a pair of Phymatids on Eupatorium sp.

IOWA. Jordison enjoyed an extremely good year for Catocala, collecting 25 species, especially in bait traps. From 15 July to 17 Aug., he noted over 30 days of 95+ degrees F and no precipitation from the extreme SW to the extreme NE counties. Mouw also had a good season with Catocala, collecting 20 species, along with several Sphingidae and Saturniidae, in his backyard. The two collectors recorded a total of 30 Catocala species!

MOTHS: S. chersis, 30 June, A. plebeja, 3 Aug., S. bicolor, 18 Aug., C. epione, 14 July, C. robinsoni, 3 Sept., C. junctura, 8 Aug., C. illecta, 16 July, C. minuta, 8 July, Hardin Co. (JM); C. consors, 31 Aug., Clayton Co., C. serena, 27 Aug., Clayton Co., C. subnata, 11 Aug., C. meskei, 21 July, C. abbreviatella, 29 June-11 Aug., C. micronympha, 12 July, Pottawattamie Co. (JJ); C. nebulosa, 23 July-31 Aug., Hamilton, Hardin & Pottawattamie Co. (JM, JJ).

MINNESOTA. Dana submitted a brief report. He found V. cardui from 16 May to 8 Oct., and V. virginianensis for the first time in several years. He found small separate colonies of H. dacotae and uncas still persisting in two areas known since the mid-60's and early 70's.

BUTTERFLIES: H. dacotae, 9 July, Stearns Co.; H. uncas, 5 July, Sherburne Co.; A. arogos, 9 July, Pope Co.; A. hianna, 16 June, Lincoln Co.; Z. cesonia, 26 Aug.-8 Sept., Anoka Co.; N. iole, 26 Aug., Anoka Co. All (RD).

MOTH: C. abbreviatella, 17 July, Lincoln Co. (RD).

WISCONSIN. Four collectors reported, giving the state good coverage. Ferge, reporting in detail, initiated collecting on 3 March as mild temperatures stimulated good numbers of Lithophane and Eupsilia in Iowa Co. He, too, experienced a wet, cool May with spring butterflies scarce and sporadic moth collecting. Summer was hot through mid-Aug. followed by cool, rainy conditions through most of Sept. Very little collecting occurred after 1 Oct. Nymphalid populations in northern counties remained low, though a few Polygonia were seen--up from practically none last year! Parkinson experienced similar weather and collecting conditions. Both found Catocala populations improving statewide, especially in southern counties. V. cardui, appearing in the south on 30 Apr., became very abundant, along with V. atalanta, in western counties in early July. Several southern migrants were recorded statewide.

BUTTERFLIES: E. lucilius, 16 July, Grant Co. (JP); E. persius, 3 June, Burnett Co. (JP); C. palaemon mandan, 6 June, Green Lake Co. (RL); O. powesheik, 3 July, Waukesha Co. (RL); H. comma laurentina, 30 July, Florence Co. (JP); H. ottoe, 12-17 July, CRAWFORD & GRANT Co. (LF, JP); H. leonardus, 6-14 Aug., Burnett & Grant Co. (JP); H. metea, 3-6 June, Adams & Douglas Co. (RL, JP); P. origenes, 17-30 July, Chippewa & CRAWFORD Co. (DE, LF); E. dion, 29 July, Clark Co. (DE); A. hianna, 6 June, Adams Co. (RL); A. hegon, 19-20 June, Forest Co. (JP); Z. cesonia, 2-3 July, Grant & Waukesha Co. (RL, JP); P. lisa, 24 June-5 Sept., Clark, Florence, Fond du Lac, Grant & Lincoln Co. (DE, LF, JP); N. iole, 30 July, Dane Co. (RB); E. epixanthe michiganensis, 11-16 July, Manitowoc & Vilas Co. (RL, FP); S. edwardsii, 15-29 July, Clark & Florence Co. (DE, FP); S. caryaeorum, 16 July, Grant Co. (DE); M. gryneus, 15-21 May, Sauk Co. (LF, JP); E. amyntula, 3 June, Burnett & POLK Co. (JP); G. lygdamus couperi, 9 May-3 June, Burnett & Winnebago Co. (RL, JP); L. argyrognomon nabokovi, 10 July, Florence Co. (JP); L. melissa samuelis, 29 July-8 Aug., Clark, Pepin & St. Croix Co. (DE, JP); C. muticum, 16 July, Washington Co. (LF, JP); L. bachmanii, 11-30 July, Dane & Manitowoc Co. (RB, RL); S. cybele krautwurmi, 15 July, Florence Co. (FP); C. freija ssp., 23 May, Oneida Co. (JP); C. gorgone carlota, 6 June-18

July, Adams & Winnebago Co. (RL); *P. satyrus neomarsyas*, 23 July-30 Aug., BAYFIELD & Florence Co. (LF, JP); *J. coenia*, 15 July-3 Sept., Clark, Florence & Rock Co. (DE, LF, FP); *A. celtis*, 18-30 July, Eau Claire & Winnebago Co. (DE, RL); *A. appalachia leeuwi*, 23 July, BAYFIELD & Washington Co. (LF, JP); *E. discoidalis*, 23 May, Oneida Co. (JP); *O. chryxus strigulosa*, 3 June, Burnett Co. (JP); *O. jutta ascerta*, 19 June, Langlade Co. (RL).

MOTHS: *M. sexta*, 26 Aug.-8 Sept., Dane Co. (LF); *M. quinquemaculata*, 16 Sept., FLORENCE CO. (JP); *S. canadensis*, 6-15 July, Florence, Marinette & OZAUKEE Co. (LF, JP); *S. luscitiosa*, 8 July, FLORENCE CO. (JP); *H. columbia*, Forest & MARINETTE CO. (attracted to *cecropia* female--JP); *S. bicolor*, 21 May, 6 Aug., Grant Co. (LF, JP); *L. pholus*, 2 July, GRANT CO. (Balogh); *E. scribonia*, 17 June, Grant Co. (LF); *A. anna*, 17 June, GRANT CO. (LF); *A. figurata*, 21 May, Grant Co. (LF, JP); *M. fishii*, 10 May, Marinette Co. (JP); *B. borealis*, 26 Apr., FLORENCE CO. (JP); *F. jocosa*, 26 Apr.-11 June, Marinette & Vilas Co. (JP); *F. major*, 12 May, Florence Co. (JP); *F. comstocki*, 10 May-11 June, Florence & Vilas Co. (LF, JP); *H. iris*, 16 Sept., Door Co. (LF); *L. digitalis*, 16-30 Sept., Florence & WALWORTH Co. (LF, JP); *L. amanda*, 25 Apr., Florence Co. (JP); *L. semiusta*, patefacta, disposita & oriunda, 3 Mar., IOWA CO. (LF); *X. cinerita*, 10 May, Marinette Co. (JP); *H. hircina*, 26 Apr., Florence Co. (JP); *P. cerina*, 29 Sept., Iowa Co. (LF); *P. leucostigma*, 8 Sept., Dane Co. (LF); *P. silphii*, 28-30 Sept., Dane & Walworth Co. (LF); *P. sciata*, 30 Sept., Walworth Co. (LF); *F. littera*, 15 July, Ozaukee Co. (LF); *M. orbifera*, 8-16 Sept., Dane & Florence Co. (LF, JP); *P. epimenis*, 15 May, Sauk Co. (LF); *A. fallax*, 15 July-19 Aug., FLORENCE & Ozaukee Co. (JP); *S. lucens*, 2 July, Grant Co. (on *Amorpha* and at UV--JP); *E. rolandiana*, 15 July, Ozaukee Co. (LF); *A. rubida*, 10 June, VILAS CO. (LF); *A. mappa*, 30 June, Florence Co. (JP); *S. microgamma neartica*, 23 June, Forest Co. (JP); *S. octoscripta*, 24 July, Oneida Co. (at *Epilobium*--LF); *C. coelebs*, 5 Aug., Door Co. (LF); *C. semirelictica*, 5-20 Aug., Door, Florence & Marinette Co. (LF, JP); *C. abbreviatella*, 2-17 July, DANE, Grant & Green Co. (LF, JP); *C. amestris*, 16 July, Grant Co. (JP); *C. minuta*, 17-21 July, Dane Co. (LF); *C. spadix*, 11-21 May, GRANT & SAUK CO. (LF); *S. adumbrata allenii*, 21 May, SAUK CO. (LF, JP); *C. frustulum*, 30 July, IOWA CO. (LF); *C. brucei*, 22 July, DOUGLAS CO. (LF); *H. subrotata*, 19 June, GREEN CO. (LF); *H. rileyana*, *C. melsheimeri*, 17 June, Grant Co. (LF); *S. argenteomaculatus*, 24 July, Oneida Co. (LF). **STATE RECORDS:** *B. gulfare*, 1 Sept., DANE CO.; *A. ovalis*, 21 May, GRANT CO.; *C. illecta*, 16 July, GRANT CO. in bait trap, all (LF).

MICHIGAN. Winter was one of the mildest of record followed by a cool spring and HOT summer. July was the warmest in 28 years--accumulating 340 degrees above normal! Despite the abnormal weather, several enjoyed good collecting throughout the state. Many experienced reduced numbers of butterfly species; Nielsen's 66 species was the lowest in years. Miller found late spring skippers down and hairstreaks almost nonexistent, with the exception of *S. melinus humuli*. Mueller, reporting for the first time, recorded 51 butterfly species in the central U.P., including many new county records. *A. lineola* enjoyed another big year with reports from all parts of the state. All reported high numbers of *V. cardui* throughout the season. As with others in the Zone, most collectors found many southern strays, especially *P. lisa* and *E. claudia*. Miller and Nielsen experienced good *Catocala* collecting--each recording 31 species from 'tapping' trees and using bait traps.

BUTTERFLIES: *E. horatius*, 9 July, VAN BUREN CO. (WM); *E. persius*, 11-14 May, Allegan & KALAMAZOO CO. (LK, WM); *C. palaemon mandan*, 11-25 June, Emmet & Schoolcraft Co. (SM, MN); *O. powesheik*, 9-10 July, Jackson Co. (LG, MM); *H. phyleus*, 3 Sept., Lenawee Co. (1 male at UV--MN); *H. conma laurentina*, 25 July-13 Aug., Delta, Dickinson & Schoolcraft Co. (SM, JP); *H. ottoe*, 9 July, Allegan Co. (LK); *H. leonardus*, 23 July-20 Aug., Dickinson Co. (JB); *P. origenes*, *W. egeremet*, 6 Sept., Allegan Co. (partial 2nd brood--WM); *P. viator*, 9-21 July, Allegan, Cass, Jackson & Midland Co. (LK, MN, JW); *E. dukesii*, 22 July-9 Aug., Monroe Co. (JW); *E. bimacula*, 9-16 July, Jackson & VAN BUREN Co. (LG, MM, WM); *A. hianna*, 4 June, ALLEGAN CO. (W); *A. vialis*, 22 June-9 July, Allegan & Chippewa Co. (LK, MN); *P. virginianensis*, 21 May-12 June, Baraga, Cheboygan, Emmet, Houghton, Mackinac & Osceola Co. (JB, SM, MN); *E. olympia*, 11-14 May, Allegan Co. (LK); *P. lisa*, 4 July-6 Sept., Allegan, Delta & SCHOOLCRAFT Co. (LK, SM); *E. helloides*, 16 July, Jackson Co. (LK); *I. irus*, 14-17 May, Allegan Co. (JB, LK, MN); *I. polios*, 14 May, ALLEGAN CO. (LK); *I. eryphon*, 21 May, Houghton Co. (JB, MN); *E. laeta*, 17 May-12 June, CHEBOYGAN & Emmet Co. (JB, TH, MN, OP); *L. argyrognomon nabokovi*, 25 June, ALGER CO. (2nd state record--SM); *L. melissa samuelis*, 11 May-4 June, 9-30 July, Allegan, Monroe & Newaygo Co. (LK, JW); *P. saepiolus*, 3 July, Schoolcraft Co. (SM); *C. muticum*, 16-17 July, Cass & Jackson Co. (LK); *E. claudia*, 13 Aug.-29 Sept., Cass, Houghton & Van Buren Co. (WM, MN, P, WW); *C. freija* ssp., 20 May, Dickinson Co. (JB); *P. eunomia dawsoni*, 30 June, DICKINSON CO. (JB); *P. pascoensis*, 3 July-25 Aug., Otsego Co. (MN); *E. phaeton*, 13 July, ALGER, Delta & Schoolcraft Co. (SM, FP); *J. coenia*, 10-14 Sept., Cass & Van Buren Co. (WM, MN); *N. mitchellii*, 9-10 July, Jackson Co. (LG, MM); *C. inornata*, 25 June-2 July, Alger & Schoolcraft Co. (SM); *E. discoidalis*, 23 May, MARQUETTE CO. (AP); *O. chryxus strigulosa*, 12-26 May, Marquette & Newaygo Co. (LK, AP); *O. jutta ascerta*, 5 June-4 July, Chippewa, Mackinac & Schoolcraft Co. (JB, SM, MN). **STATE RECORD:** *N. lherminier*, 17 July, ALLEGAN CO. (LK).

MOTHS: *D. hylaeas*, 6 Aug., Otsego Co. (MN); *S. luscitiosa*, 11 June, Chippewa Co. (JB); *S. canadensis*, 6 July, Dickinson Co. (JP); *A. titan*, 26-27 Aug., Keweenaw Co. (4 nectaring in hayfield--P); *E. fasciata*, 23 Sept., CASS CO. (1 immc. female at MV--2nd state record--WW); *E. imperialis pini*, 3 July, Otsego Co. (MN); *A. caja americana*, 4-5 Aug., Otsego Co. (MN); *A. langtoni*, 18 July, DICKINSON CO. (JB); *M. fishii*, 10 May, Dickinson Co. (JP); *L. radix*, 15-19 June, DICKINSON CO. (AP); *L. tacoma*, 13 June-4 July, DICKINSON CO. (JB); *A. cordigera*, 11 June, Chippewa Co. (JB); *F. major*, 26 Apr.-18 May, DICKINSON CO. (JP); *L. digitalis*, 3-8 Oct. CASS CO. (MN, WW); *L. semiusta*, *amanda* & *thaxteri*, 2 Apr.-18 May, DICKINSON CO. (JP); *X. cinerita*, *H. hircina*, 26 Apr., DICKINSON CO. (JP); *H. stramentosa*, 16 Sept., Dickinson Co. (JP); *P. speciosissima*, 29 Sept., Clinton Co. (JB, MN); *P. circumlucens*, 2 Sept., Lenawee Co. (MN); *P. lysimachiae*, 10 Sept., ST JOSEPH CO. (MN); *P. sciata*, 8 Oct., Cass Co. (MN); *A. mappa*, 3 July, DICKINSON CO. (JP); *S. ampla*, *epigeae*, *octoscripta* & *viridisigma*, 19 July-8 Aug., Dickinson Co. (JB); *C. coelebs*, 4-20 Aug., Otsego Co. (MN); *C. dejecta*, 20 Aug., KALAMAZOO CO. (WM); *C. nebulosa*, 20 Aug.-4 Sept., CLINTON CO. (NORTH ext.--TH); *C. subnata*, 19 Aug., OTSEGO CO. (150+ mi. NORTH of prev. records--MN); *C. semirelictica* & *blandula*, 13 May, DICKINSON CO. (JB); *E. substriataria*, 10 May, Dickinson Co. (JP). **STATE RECORD:** *P. cerina*, 7 Oct. CASS CO. [1 ♂ at MV (WW)].

FOODPLANT RECORDS: *P. exprimens*, June-July, larvae abundant on *Scrophularia marilandica*, DICKINSON CO. (JB); *P. speciosissima*, 24 July, larvae in *Osmunda regalis* and *cinnamomea*, Clinton Co. (MN); *P. marginidens*, 23 July, in *Cicuta maculata*, Ingham Co. (MN); *P. circumlucens*, 26 June, larva in wild hop vines, Lenawee Co. (MN); *P. harrisii*, larva in *Heracleum lanatum*, DICKINSON CO. (JB); *P. buffaloensis*, pupa and larvae in *Saururus cernuus*, BERRIEN CO. (MN).

ZONE 6 SOUTH: ARKANSAS, LOUISIANA, TENNESSEE, MISSISSIPPI, ALABAMA, FLORIDA, GEORGIA, SOUTH & NORTH CAROLINA, VIRGINIA. Coordinator: H. D. Baggett (HDB). Contributors: M. Bouchard (MB), V. A. Brou (VB), S. N. Brown (SB), J. V. Calhoun (JC), T. S. Dickel (TD), L. C. Dow (LD), I. L. Finkelstein (IF), H. A. Freeman (AF), R. Godefroi (RG), W. T. Hark (WH), J. Hyatt (JH), E. C. Knudson (EK), L. C. Koehn (LK), T. W. Kral (TK), V. Lucas (VL), B. Mather (BM), J. Maudsley (JM), P. A. Opler (PO), H. Pavulaan (HP), D. Profant (DP), D. A. Purdum (DAP), P. Tuskes (PT), and C. Watson (CW), R. Webster (RW). All apparent new US, STATE, COUNTY, PARISH records in caps, as are apparent new range extensions (NORTH, LATE, etc.).

ARKANSAS. MOTHS: The following Catocala were reported taken in Fayetteville, Washington Co. by E. J. Paulissen (AF) during summer; C. amatrix, C. junctura, C. innubens, C. angusi, C. relecta, C. vidua, and C. obscura. No specific dates given.

LOUISIANA. MOTHS: VB reported outstanding collecting during 1983 for Sphingidae, and apparent STATE records for the following; NOCTUIDAE - Catocala lincolnana, C. jair, C. miranda, Polia legitima, Heliothis turbatus, Cirrophanus triangulifer, Lacinipolia implicata, Tarachidia parvula, Zanclognatha martha, Argyrostromis contempta, A. sylvarum, A. deleta, Pyreferra hesperidago, P. indirecta, Lithophane viridipallens, L. patefacta, L. laceyi, L. signosa, Eupsilia vinulenta, Acronicta sinenscripta, Parallelia consobrina, Leucania cinereicollis, Quandara braunata, and he also took Feralia major in January (EARLY) in St. Tammany Parish; ARCTIIDAE - Apantesis virgo, Cycnia inopinatus, and C. tenera; GEOMETRIDAE - Caripeta aretaria, Anacamptodes ephyraria, Exelis dicolus, Nemoria extremaria, Probole alienaria, Cleoria projecta, Semiothisa cyda, Synclora aerata, Glena cognitaria, Euchlaena marginaria, Lyctosis sinuosa, Stenaspilates antidiscaria, Episemasia morbosa, Metarrhantis angularia, and M. hypochraria; NOTODONTIDAE - Heterocampa varia, Schizura badia. Approximately 50 additional micros were included, lists of which are available from either VB or the coordinator.

TENNESSEE. JH and CW commented on the unusually wet and prolonged spring, delaying emergence timing for many spring species.

BUTTERFLIES: HESPERIIDAE - Wallengrenia otho, 2 Aug., Dekalb Co. and 13 Aug., BLOUNT CO.; Erynnis baptisiae, 29 July and 6 Aug., CARTER CO.; Amblyscirtes belli, 13 Aug., BLOUNT CO. PAPILIONIDAE - Heraclides crespontes, 2 Aug., Dekalb Co., and 5 Sept., SULLIVAN CO. PIERIDAE - Euchloe olympia, 5 May, Bays Mt., Sullivan Co. LYCAENIDAE - Glaucopsyche lygdamus, 16 April and 7 May, Washington Co.; Incisalia nippon, 5 May, 3 June, and 21 June, Sullivan Co.; Parthasius m-album, 28 July, HAWKINS CO.; Celestrina ebenaria, 25 April, Carter Co., 7 May, Washington Co., and 5 June, UNICOI Co., the latter as larvae on Aruncus dioicis. NYMPHALIDAE - Speyeria diana, 17 July, 26 July, 18 Sept. in Washington Co. and 29 July, 6 Aug. in Carter Co. Note the later-than-normal dates for the spring spp. mentioned.

MISSISSIPPI. BUTTERFLIES: MB reported the following new records; PAPILIONIDAE - Pterourus glaucus glaucus dark ♀ form, turnus, Big Sand Cr., CARROLL CO., 22 July; SATYRIDAE - Cercyonis pegala abbotti, 3 July, GRANADA CO.

MOTHS: SATURNIIDAE - Hyalophora cecropia, ex. cocoon, Big Sand Creek, Carroll Co., emerged 27 May; Hemileuca maia, 10 Dec., Sidon Mts., LEFLORE CO. (MB). NOCTUIDAE - BM provided additional data on the weather-induced "late" season with records for several Catocala spp.; he recorded C. maestosus between 4 Oct. and 12 Dec. (LATE); C. piatrix from 11 Aug. to 2 Nov. (LATE); C. lacrymosa, 3 Nov. (LATE); and C. neogama, 6 Oct. (LATE). Others reported included C. vidua between 21 Sept. and 8 Nov.; C. carissima from 6 Oct. to 8 Nov.; C. nebulosa, 14 Sept.; and C. amica, 16 Aug.

ALABAMA. BUTTERFLIES: PO reported the following as probable new STATE records; Artogeia virginiensis, Erynnis icelus, and Hesperia metea, all from the Cumberland Plateau region, JACKSON Co., April. He found males of Anaea andria relatively common along dirt roads on ridge tops, plus Amblyscirtes hegon and Mitoura gryneus.

FLORIDA. BUTTERFLIES: RESTRICTED SPECIES - Only one report was received for Heraclides aristodemus ponceanus this season, a single female seen on North Key Largo, in late May; conservation efforts have successfully re-established Eumaeus atala in a number of new localities, the situation already being exploited by market collectors, unfortunately. PAPILIONIDAE - P. glaucus australis, 28 March, Ft. Meyers, Lee Co. (JC); P. palamedes, 17 April, common, Kingsley Plantation, Duval Co. (TK); B. polydamas, 7 May, Perrine, Dade Co. (RG). HESPERIIDAE - Euphyes dukesi, 5 taken on 5 June, Winter Springs, Seminole Co. (LD); Euphyes alabamiae, 1 Oct., FRANKLIN & LIBERTY Co. (JH, CW); E. pilatka, 30 Sept., GULF Co.; Euphyes arpa, 1 Oct., FRANKLIN & LIBERTY Co. (JH & CW); E. berryi, 14 Sept., Collier Co. (JC); Cymaenes tripunctus, 11 Dec., Ft. Meyers (JC); Atrytonopsis loamii, 22 April, Sampson, St. Johns Co. (VL); Amblyscirtes vialis, 23 April, Torreya St. Pk. (VL); Megathymus cofaqui, pupae in tents on Yucca filamentosa, 9 April, McKethan Lake, Hernando Co. (RG). LYCAENIDAE - Feniseca tarquinius, 11 June, east of Nobleton, SUMTER Co. (LD); Mitoura gryneus sweadneri, 14 Aug. at MV light, Torreya St. Pk., LIBERTY Co. (record of R. Gilmore (HDB), Crystal River, 16 July, Citrus Co. (LD), 22 April, Duval Co. (VL); Satyrion kingi, 3 June, Torreya St. Pk. (HDB), 1 June, Blackwater River St. Pk., SANTA ROSA Co. (T. Neal record of HDB); Euristrymon ontario, Crestview, OKALOOSA Co., and Blackwater River St. Pk., SANTA ROSA Co. on 1 June (Neal records of HDB); Chlorostymon maesites, C. simaethis, Tmolus azia, and Strymon martialis, 23 Dec., North Key Largo, Monroe Co. (JC), nectaring on Eupatorium odoratum (IF); Brephidium isopthalma pseudofea, 27 May, Duval Co. (TK). RIODINIDAE - Calephelis virginiensis, 24 April, Janes Scenic Dr., Collier Co. (VL), 1 Oct., Bristol, LIBERTY Co. (HDB). SATYRIDAE - Satyroides appalachia, 11 June, Crystal Springs, Pasco Co. (LD); Enodia portlandia floralae, 27 April, Torreya St. Pk. (VL); Cercyonis pegala abbotti, 16 July, Yankeetown, Levy Co. (LD), Apalachicola National Forest, LIBERTY Co., fairly common Oct. 1 (HDB). PIERIDAE - Ascia monuste, 3 July, Ormand Beach, Volusia Co. (LD), numerous reports of large migrational swarms in south Florida during summer months, including one report at sea; Eurema dina helios, 16 July, Homestead, Dade Co. (PT); Eurema nise, several 14 Dec., Homestead, including observation of oviposition on Lysiloma bahamensis (JC); Colias eurytheme, 13 Sept., Ft. Meyers (JC). NYMPHALIDAE - Basilarchia arthemis astyanax, Wekiva Springs, Orange Co. (LD); Anthanassa texana seminole, 1 Oct., FRANKLIN Co. (JH, CW); Vanessa cardui, 24 April, Janes Scenic Dr., Collier Co. (VL); Eunica monima still persisting, 7 May, Perrine, Dade Co. (RG); 16 July, Homestead (PT) and 14 Dec., Homestead (JC); Eunica tatila tatilista, 26 April, Upper Matecumbe Key, Monroe Co. (VL), and 17-18 Sept., N. Key Largo, Monroe Co. (JC); M. petreus and S. stelenes, 16 July, Homestead (PT).

MOTHS: SPHINGIDAE - Sphinx franckii, 10 specimens during June and August, Liberty Co. (HDB); Eumorpha vitis and Manduca brontes, 17 June, Sanibel Island, Lee Co.; Sphecodina abbottii, larvae on poison ivy, 14 August, Torreya State Park, Liberty Co. (HDB); Cocytius antaeus, larvae common on Annona glabra, 12 Nov., Janes Scenic Dr., Collier Co., adults at MV, Collier-Seminole St. Pk., 12 Nov. (DP). ARCTIIDAE - Composia fidelissima, common on N. Key Largo, 23 Dec. (IF); Euerythra phasma, 16 July, Nobleton, Sumter Co. (LD), Suwannee River St. Pk., 31 May (HDB). CTENUCHIDAE - Horama panthelon texana, 11 Nov., Sanibel Island, Lee Co. (LD). NOCTUIDAE - Catocala lincolnana, C. similis, C. clintoni, Suwannee River St. Pk., 31 May (HDB); Schinia gaurae, 16 July, Crystal River, Citrus Co. (LD), ex. lv. on Gaura angustifolia, Tampa, Hillsborough Co., Oct. (HDB); Cirrophanus triangulifer, 3 Oct., Gainesville, Alachua Co. (EK); Hypena vetustalis, 11 Nov., Sanibel Island (DP) NORTH. New STATE records are Zanclognatha atrilineela, 1 Oct., Torreya St. Pk. (EK); Trichoclea ruia, 30 Sept., Crestview, OKALOOSA Co. (EK); Polia detracta, Torreya St. Pk., 1 Oct. (EK). New US and STATE records are Elaphria deltoidea, 8 & 28 Oct., Homestead, DADE Co. (TD); Mocis cubana, 2 April, No Name Key, MONROE Co. (TD); Gonodonta bidens, 17 Oct. 1981, Homestead, DADE Co. (TD); Speocropia scriptura, 13 May, Chapman Field USDA Station, DADE Co. (TD); Leucania senescens, 6 Nov. 1982, 12 Mar. 1983, Homestead, DADE Co. (TD); Physala albipunctilla, all months, Homestead, DADE Co. (TD); a second US record for Neotueria hemicycla was 5 June 1982, Windley Key, Monroe Co. (TD). PYRALIDAE - Maruca testulalis, 13 May, Chapman Field, DADE Co. (TD).

GEORGIA. BUTTERFLIES: PAPILIONIDAE - *JM* commented on the prolonged cold and wet spring having a detrimental effect on the spring broods, but swallowtails rebounded well by summer. *IF* reported a higher than normal occurrence of partial melanic ♀♀ in the mountain region for *P. glaucus* during summer. *P. palamedes*, common, April, Ft. Gordon, RICHMOND Co. (TK). PIERIDAE - *Falcapica midea*, 17 Mar.-23 April, Ft. Gordon, RICHMOND Co. (TK). NYMPHALIDAE - *Speyeria cybele*, observed along Broad River, 19 Aug., MADISON Co. (JM); *Basilarchia archippus* reported as extremely abundant, Athens, Clarke Co.--of hundreds of larvae examined, a very low incidence of parasitism (JM). LYCAENIDAE - *Satyrus kingi*, 18 Aug. (LATE), Cooper Creek, Fannin Co.; *Mitoura gryneus*, observed ovipositing on cedars, July 17-19, Athens, Clarke Co. (JM); *Parrhasius m-album*, 10 April, Ft. Gordon, RICHMOND Co. (TK). HESPERIIDAE - *Pyrgus oileus* has been confirmed as a new STATE record, det. by Lee Miller in the Fattig collection (SB) from BARTOW, THOMAS & DOUGHERTY Counties; *Hesperia meskei*, 2 Oct., Hartley Bridge Rd., Crawford Co. (JH, CW); *Megathymus harrisi*, 3 ♀♀, 16 Aug., Arabia Mt., Dekalb Co. (C. Stevens record of HDB), flushed from woods in afternoon searches.

MOTHS: SPHINGIDAE - *Lapara bombycoides*, 19 Aug., Sea Creek, Fannin Co.; *Paratreia plebiae*, 16 Aug., Dahlonega, Lumpkin Co.; *Eumorphia pandorus*, 17 Aug., Woody Gap, Union-Lumpkin Co. line, and Dahlonega, 18 Aug.; *Hemaris diffinis*, 17 Aug., Mt. Oglethorpe, Pickens Co. NOCTUIDAE - *Catocala cerogama*, *C. gracilis*, *C. retecta*, *C. flebilis*, *C. andromedae*, 17 Aug., Woody Gap; *C. epione*, *C. gracilis*, *C. grynea*, *C. ultronia*, *C. paleaogama*, Cooper Cr. St. Rec. Area, 18-19 Aug., Fannin Co.; *C. nebulosa*, 17 Aug., Dahlonega; *Acronicta radcliffei*, *Euplexia benesimilis*, 17 Aug., Woody Gap; *Pseudorthodes vecors*, *Anomogyna badicollis*, *Laconobria legitima*, *Leucania ursula*, *Sideridis congermana*, *Abagrotis alternata*, *Lithacodia carneola*, *Calpe canadensis*, *Leuconycta diphtheroides*, *Macrochilo litophora*, and *Renia discoloralis*, 19 Aug., Sea Creek, Fannin Co. LYMANTRIIDAE - *Dasychira meridionalis memorata*, *D. obliquata*, 18-19 Aug., Dahlonega. GEOMETRIDAE - *Pero hubneraria*, *Campaea perlata*, *Xanthotype rufaria*, *Euchlaena muzaria*, 17 Aug., Woody Gap; *Caripeta divisata*, *Cabera erythemaria*, *Hydrelia inornata*, Cooper Cr. St. Rec. Area, 18-19 Aug. THYRIDIDAE - *Thyris meculata*, 18 Aug., Cooper Cr. (all above HDB). SESIIDAE - *Synanthedon exitosa*, at pheromone bait, Atlanta, common, late August; *Vitacea polistiformis*, Aug., (found climbing up wall of house), Atlanta (IF).

SOUTH CAROLINA. BUTTERFLIES: PIERIDAE - *Falcapica midea*, late April, F. M. Forest, Dorchester Co. (PO). LYCAENIDAE - *Mitoura gryneus swadneri*, common along coastal dune cedar stands in late April, Georgetown Co. (PO). HESPERIIDAE - *Poanes aaroni howardi*, 28 May, common on pickerel weed, Jasper Co. (TK); *Euphyes alabamiae*, 28 May and Sept., Hardeeville, Jasper Co. (TK). J. R. Watts, collecting on April 1, gave the following new records for Prosperity, NEWBERRY Co.; *Falcapica midea*, *Colias eurytheme f. ariadne*, *Incisalia nippon*, *Celestrina ladon*, *Everes comyntas*, *Calycopis cecrops*, *Libytheana bachmanii*, *Polygonia interrogationis*, *Euptoieta claudia*, *Phyciodes tharos*, *P. glaucus*, *Epagyreus clarus*, and *Erynnis juvenalis*. (Records from S. Lep. News, 5:1, p. 6 - HDB).

NORTH CAROLINA. BUTTERFLIES: PAPILIONIDAE - *P. palamedes*, 26 April, Green Swamp Game Area (GSGA), Brunswick Co. (RW); reported as common at Ft. Bragg, and in Moore & Hoke Co. (TK). PIERIDAE - *Phoebis sennae eubule*, 4 April, Holly Swamp Game Area (HSGA), Pender Co., 26 April, GSGA, and very common at Beaufort, Carteret Co. on Sept. 13 (RW); *Eurema nicippe*, 4 March, Sandhill Wildlife Area (SWA), Richmond Co. (RW). SATYRIDAE - perhaps the most significant find in terms of butterflies in the SE in 1983 was the discovery of a colony of *Neonympha mitchelli* on Ft. Bragg Mil. Res. with broods in June and August, by TK; This is a new STATE record, and a significant SOUTHWARD range extension; *N. areolata* is present in the same area, with some specimens having eyespots on the FW beneath; *Enodia creola*, 2 broods as evidenced by bait traps, 20 May-14 June, again from 26 July-25 August, Ft. Bragg (TK); *Cyllopsis gemma*, 4 March, SWA (RW), abundant, May-Sept., Ft. Bragg (TK); *Satyrus appalachia*, June-Aug., in bait traps, Ft. Bragg (TK), 20 Aug., Duke Forest (RW). LYCAENIDAE - *Harknclenus titus*, 26 June, Guilford Co. (CW, JH), 3 July, SWA (RW); *Atalides halesus*, 20 March and 12 April, SWA (RW), common, GSGA 29 July-17 Aug., and Ft. Bragg 31 July-21 Aug. (TK); *Satyrus liparops* nr. ssp. *liparops* (large orange patches above), 11 June, Brunswick Co. (TK), 25 June, SWA (RW); *Satyrus kingi*, 17 June, N. Harlowe, 25 June-3 July, strongly associated with *Symphlocos tinctoria*, SWA (TK, RW), 11 July, Ft. Bragg (TK); *Parrhasius m-album*, 29 April, Duke Forest (RW); *Mitoura hesseli*, common on flowers of *Clethra alnifolia*, 6 Aug., GSGA (RW); *Lycaena phlaeas americana*, May-July-Aug., Moore Co. (TK); *Feniseca tarquinius*, 18 Aug., Ft. Bragg (TK); *Incisalia irus*, 28 April and 3 May, SWA (RW); *Incisalia nippon*, 21 March, SWA (RW). RIODINIDAE - *Calephelis virginianensis*, common 13 Sept., N. Harlowe (RW). NYMPHALIDAE - *Polygonia comma*, 5 March, Duke Forest (RW), sparingly in bait traps between May and Sept., Ft. Bragg (TK); *Nymphalis antiopa*, 4 March, SWA (RW), 5 March, Duke Forest (RW). HESPERIIDAE - *Problema bulenta*, *Euphyes dukesi*, and *Poanes viator*, 21 Aug., near Wilmington, Brunswick Co. (RW); *Atrytonopsis loammi*, 22-26 April, GSGA (RW), common in marshy areas, Brunswick Co., July 21-29 (TK); *A. hianna*, 3 May, SWA (RW); *Amblyscirtes vialis*, 21 April, SWA (RW); *Euphyes dion*, Sept., Ft. Bragg (TK); *Amblyscirtes alternata*, 21 May, Moore Co. (TK); *Amblyscirtes carolina*, 18 Aug., Ft. Bragg (TK); *Hesperia meskei*, 29 Oct., Ft. Bragg (TK); *Poanes yehl*, 25 June, SWA, 13 Sept., N. Harlowe (RW); 7 July, Moore Co. (TK); *Panoquina ocola*, 13 Sept. N. Harlowe (RW), common in Sept., Ft. Bragg (TK); *Panoquina panoquin*, 13 Sept., Beaufort, Carteret Co. (RW); *Thorybes confusus*, 30 July, Brunswick Co. (TK).

MOTHS: SATURNIIDAE - *Hemileuca maia*, Nov. 26-Dec. 12, common, Ft. Bragg, Cumberland Co. (TK). SPHINGIDAE - *Agrius cingulata*, fairly common, summer, Rocky Mount, Nash Co. (SM); *Paonias astylus*, 15 May, Ft. Bragg (TK); *Manduca rustica*, 10 June; *M. jaminearum*, 10 June; *Lapara coniferarum*, 26 Aug.; *Eumorphia pandorus*, 26 Aug.; *Paratreia plebiae*, 8 Aug. [all Duke Forest, Durham Co. (RW)]. NOCTUIDAE - *Eudocima materna*, 8 November, Rocky Mount, NASH Co. (NORTH--SM); *Strenoloma lunilinea*, common in bait traps, June & July, Ft. Bragg (TK); *Catocala clintoni*, *C. gracilis*, *C. similis*, *C. epione*, common June, Ft. Bragg (TK); *C. maestosus*, *lacrymosa*, *vidua*, *agrippina*, *marmorata*, *cara*, *amatrix*, *muliercula*, *piatrix*, *ultronia*, and *ilia*, July, Ft. Bragg (TK); *C. clintoni*, *C. similis*, SWA, 2 June (RW); *C. miranda*, *C. epione*, 2 July, Duke Forest (RW); *C. messalina*, 18 June, N. Harlowe, Craven Co. at UV (RW). ARCTIIDAE - *Haploa colona*, June 11, Brunswick Co. (TK); *Haploa militaris* and *H. clymene*, July, Ft. Bragg and SWA (TK).

VIRGINIA. BUTTERFLIES: PAPILIONIDAE - *P. palamedes*, 3 June, Great Dismal Swamp NWR (GDS), Suffolk District (VL); *Heraclides cressphontes*, uncommon at Great Falls, Fairfax Co., but a flyway on the VA side of the Potomac was observed here for the third straight year (HP); *Eurytides marcellus* spring form common at Great Falls (HP); *Battus philenor f. acauda*, April, Herndon, with many short-tailed individuals seen in July (HP). PIERIDAE - *Colias eurytheme f. ariadne* ♂ aberrant without borders, April 1, Reston (HP); *Eurema lisa*, 18 Aug., unusually common, Fairfax Co. (WH); *Phoebis sennae eubule*, 10 Sept., Fairfax Co. (WH). NYMPHALIDAE - *Charidryas nycteis nycteis*, 12 July, Tazewell Co. (VL); *Polygonia comma* & *Nymphalis antiopa*, March, Fairfax Co. (HP); *Asterocampa clyton*, 25 June, Fairfax Co. (WH); *Speyeria cybele*, 10 Sept., Fairfax Co. (WH); *Speyeria diana*, 8 July, Hungry Mother St. Pk., Smyth Co. (WH); *Clossiana bellona*, 8 Oct., Fairfax Co. (WH). RIODINIDAE - *Calephelis borealis*, 12 July, Tazewell Co. (VL). SATYRIDAE - *Enodia portlandia portlandia* and *E. creola*, 3 June, GDS, Suffolk District (VL). LYCAENIDAE - *Feniseca tarquinius*, 25 June, Fairfax Co. (WH); *Celastrina ladon f. violaceae*, March, Fairfax Co. (HP); *Erora laeta*, 16 July, Montgomery Co. (LK); *Incisalia polios*, ♀♀ from Augusta Co. oviposited on *Epigaea repens* (LK); *Mitoura hesseli*, 4 June, GDS, Suffolk Dist. (VL); *Incisalia irus*, 5 June, Fairfax Co., (VL). HESPERIIDAE - *Erynnis baptisiae*, 5 June, Fairfax Co. (VL), 11 July, Tazewell Co. (JC); *Autochton cellus*, 5 June, Fairfax Co. (VL); *Erynnis martialis*, 12 July, Tazewell Co. (VL); *Lerema accius*,

Amblyscirtes aesculapius, and A. carolina, 3 June, GDS, Suffolk District (VL).

MOTHS: SATURNIIDAE - Antherea polyphemus, last instar larvae feeding on cultivated azaleas, 6 Sept., spun cocoon 12 Sept., Roanoke, Roanoke Co. (DAP); Actias luna, 30 Oct. (LATE), Fairfax Co. (WH); Anisota senatoria, 22 July, Bath Co. (WH); Dryocampa rubicunda, 24 July, Bath Co. (WH). SPHINGIDAE - Paonias excaecatus, 22 July, Bath Co. (WH); Hemaris thysbe, 20 Aug., Fairfax Co. (WH); Sphinx kalmiae, 12 July, Tazewell Co. (VL); Laothoe juglandis, 12 July, Tazewell Co. (VL); Hemaris diffinis, 5 June, Fairfax Co. (VL); Amphion floridensis, 4 June, GDS, Suffolk District (VL). NOCTUIDAE - Melipotis jucunda, 5 June, common on sandy soils in Virginia Beach area (VL). ZYGAENIDAE - Pyromorpha dimidiata, 4 June, GDS, Suffolk District (VL).

ZONE 7 NORTHEAST: QUEBEC, NEWFOUNDLAND, LABRADOR, MARITIMES, NEW ENGLAND, NEW YORK, NEW JERSEY, PENNSYLVANIA, DELAWARE, MARYLAND. Coordinator: Dave Winter (DW). Contributors: Wm. Boscoe (WB), John Bowe (JB), A. E. Brower (AEB), Charles Burkhart (CB), John Fales (JF), Larry Gall (LG), Stephan Goldstein (SG), L. Paul Grey (LPG), W. R. Grooms (WG via JF), Jack Holliday (JH), James P. Holmes (JPH), Philip Kean (PK), R. A. Layberry (RAL), Ron Leuschner (RL), Robert May (RM), Mark Mello (MM), Harry Pavulaan (HP), Calvin Schildknecht (CS), Dale Schweitzer (DS), Scott Smedley (SS, via MM), Alfred Spoo (AS), Jim Troubridge (JT), Martin Wenger (MW), and James White (JW, via LPG). Reports were received mostly from the eastern portion of the Zone, where the spring was cold and very wet through May, followed by a hot summer with serious drought in many areas. Lymantria dispar infestation had dropped to normal in New England, but reached peak defoliation in the Allegheny Mts. While most areas reported moderately low to very low butterfly populations, either throughout the year or after mid-July, there were contradictions: "hairstreaks had a peak year in Lancaster Co., PA" (MW), but were "terrible" a few miles south in MD (PK). Catocala, which had plummeted in mid-1981, were slowly increasing in 1983 (DS, DW). To conclude that the recent population fluctuations have been due to dispar outbreaks, BT spraying, viral infection, and/or abnormal weather, is risky, since major declines occurred in areas where few or none of these factors seemed to be operating.

MIGRATORY SPECIES: D. plexippus could not be found in spring migration in S. Maryland for the first time in years (JF). Summer adults were scarce in Lancaster Co., PA (AS), abundant briefly in late August on A. incarnata in Adams Co., PA, but no migration from the north was detected (CS). In Maine, AEB reported a single sighting in Georgetown 3 Aug., 15-20 in Port Clyde 18 Aug., 2 at Mt. Vernon 10 Sept; ova and early larvae were frequent, adults scarce in Islesboro early Aug. (DW). No return migration was seen in '83 in the Ottawa region (JH) or eastern Mass. (DW); in Maryland JF reported only a "very weak flight" 22 Sept., with small numbers on occasional days 12 Sept. through 31 Oct.

QUEBEC. BUTTERFLIES: H. leonardus, 13 Aug. Wakefield Twp, Gatineau Co. (RAL); P. polyxenes 15 June, Mashan Twp, Gatineau Co. (RAL); P. rapae scarce in St. Pierre de Wakefield, Gatineau Co., July, as compared with hundreds in 1982 (JH); I. henrici 11 June, Bristol Twp, Pontiac Co. (RAL); E. laeta 18 May, Gatineau Park, Gatineau Co. (RAL); hundreds of P. tharos, St. Pierre de Wakefield, July (JH); P. faunus, 18 May, Eardly Twp, Pontiac Co. (RAL); moderate # of A. milberti, July, Wakefield (JH); V. cardui, 30 July-3 Sept., many larvae on thistle in Papineau, Pontiac & Gatineau Co., but no adults seen (RAL); O. chryxus, 11 June, Bristol Twp (RAL).

MOTHS: L. dispar around Ottawa area late July (JH).

LABRADOR. (All LPG & JT, along 60-mile stretch of road on south coast from Quebec border, 27 June-4 July).

BUTTERFLIES: P. centaureae freija; many worn A. napi frigida; a few fresh ♂ C. pelidne; Agriades franklinii (=aquo) typical, 4 July; Proclassiana eunomia, distinct from dawsoni, being paler, yellowish, mostly unsilvered, and higher, faster fliers; Clossiana selene, local and scarce; C. freija, nearly gone in late June; C. chariclea, rather scarce [Grey feels the present specimens, as well as others from W. Newfoundland (Doyle, Table Mt., Gros Morne) match chariclea, whereas interior Labrador specimens fit titania]; V. cardui & atalanta were also present, and the Coenonympha inornata ssp.; Oeneis jutta, small and highly ocellate, peaked end of June (taken '81 and '83, vs. even years in Newfoundland; whether annual or biennial is unknown); O. polixenes past peak.

MOTHS: Taken as tundra day-fliers were Plactarctia parthenos, Apantesis quinseli, Anarta melanopa & cordigera, Sympistis melaleuca in the vicinity of L'Ashe au Clair.

NEWFOUNDLAND. BUTTERFLIES: LPG & JT, near Doyles, found many early stages of P. brevicauda on Ligusticum scoticum, but saw few adults; noted the midsummer Colias on meadows and moors to be interior, while pelidne, by contrast, flew in seaside tundra areas and peaked in late June.

MOTHS: Taken at Doyles at blacklight (JW), except as otherwise noted (considerable geometrid material not yet worked over). Tyria jacobaeae (Canad. Gov't introduction from Europe for control of tansy ragwort) late June, Doyles & Vic. (JW, JT: PROV. REC.); Apantesis virguncula 14, 27 July; Autographa flagellum 19, 23 July; Syngrapha interrogationis late Aug. (prob. new for Newfoundland); Plusia venusta 27 July; Agriopodes fallax early July; Harrisimemna trisignata 14 July; Protagrotis extensa 27 Aug.; Luperina stipata 31 Aug. (PROV.); Eremobina jocasta late Aug.-early Sept. (PROV.); Oligia illocata Aug.-Sept.; Papaipema impecuniosa & P. unimoda (thalictri) Sept.; Achatodes zeae mid-Aug. (PROV.); Hyppa ? brunneicrista common in July; Cosmia calami (canescens) 19 Aug. (PROV.); Xylina curvimacula 6 Sept.; Litholomia napaea late Sept. (PROV.); Lithophane ferrealis (petulca) (PROV.), Metaxaglaea viatica (PROV.), & Epiglaea apiata, all early Oct.; Hillia iris 9, 14 Aug.; Platypolia anceps & Xylotype acadica late Aug.-early Sept.; Apharetra dentata, fairly common late July; Sutyna privata & S. profunda (PROV.) common late Aug.-early Sept.; Homohadena infixa 14, 27 July; Euagrotis forbesi 8 July (PROV.); Diarsia dislocata & D. jucunda common mid-July; Acetebia fennica 9 Aug.; Leucania multilinea 19, 14 July (PROV.); Xestia (Amathes) collaris 10 July; Anomogyna speciosa ssp. common early Aug.-early Sept.; A. imperita 8 July; Anaplectoides prasina common mid-July; Schinia (Rhodophora) florida 9 July (PROV.).

NOVA SCOTIA. BUTTERFLIES: RAL submitted extensive details for Cape Breton Highlands Nat. Pk. and vic. for 3 weeks of hot dry weather in early summer; excerpts here his unless noted. Erynnis icellus 28 June Clyburn Bk., 6 July Freshwater Lake, 8 July North Mt.; A. numitor 10 July near Round Lake in a tiny patch of suitable habitat; L. phlaeas, infrequent but in several places, one in highlands at McKensie Mt. 1 July; E. epixanthe scarce at four highland locations 6-14 July, and very few in North Mt. Bog 8 July; Glaucopsyche lygdamus larvae on Vicia cracca at Grande Falaise 4 July and on Lathyrus japonicus 11 July South Pond - also by JT 3 July on L. japonicus at Baddeck, t.l. of G. 1. mildredae [LPG notes that couperi is the ssp. he found all across Cape Breton in old-field vetch associations, and he feels that vetch and beach-pea populations need more study (larvae cannibalistic!)]]; L. argyrognomon empetri were fresh 23 June, Black Rock, Cape Breton (LPG), and on three wind-swept cliff-tops 24 July to 4 July, ova obtained 1 July on Empetrum sp. (RAL).

MOTHS: Tyria jacobaeae (see Newfoundland) common in June, C.B.I.; Noctua pronuba, 6 mi. E. of Canso Causeway 18 July, by day (LPG).

MAINE. AEB in a full season of observation in several counties in central Maine noted a general paucity of butterfly

species (ca. 22) and numbers, with no unusual records.

BUTTERFLIES: *C. palaemon mandan* 29 June, *Epargyreus clarus* 31 July, Islesboro (DW). Unusually abundant *A. napi* in Enfield (LPG) and presence of 5 species of *Incisalia* (no *irus*) on a single path in Passadumkeag, Penobscot Co. 22 May (DW), points up exceptions to the foregoing generality. *S. acadica* 28 July, Islesboro (DW); *Polygonia satyrus* 27 July, Springfield, PENOBSCOT CO. and SOUTH (LPG); *C. inornata*, 27 June, Islesboro, appears to have spread eastward along the coast from New Hampshire rather than south from New Brunswick (DW).

MOTHS: *Zanclognatha martha*, Shapleigh pitch pine barrens, York Co., 23 July (DS); *Synedoida grandirena* 19 June, Enfield, Penobscot Co. (LPG); *Erebus odorata* ♀ 6 Aug, Islesboro, Waldo Co. (DW); *Catocala similis* common 23 July, Shapleigh, but other species low (DS); *Cerma cora* 12 June, *Acronicta tritona* 16 June, *Apamea vultuosa* 16 June, *Oligia bridghami* 18 Aug., *O. minuscula* 19 Aug., Enfield (LPG); *Papaipema appassionata* ex larva in pitcher plant Shapleigh (DS); *Platysenta sutor* 26 Aug., *Lithophane amanda* 18 May, *Pyreferra pettiti* 29 Sept., (PENOBSCOT), *Brachylomia algens* 5 Aug., Enfield (LPG); *Apharetra purpurea* 23 July, Shapleigh (DS); *Adita chionanthi* 13 Aug., *Polia rogenhoferi* 15 Aug., (PENOBSCOT); *Polia* (*Spiramater*) *lutra* 10 June, *Abagrotis alternata* 19 Aug., Enfield (LPG).

NEW HAMPSHIRE. All records Concord pitch pine barrens, Merrimac Co., except as noted.

BUTTERFLIES: DS estimated the Concord Karner Blue population late July at 3500, in a very threatened and restricted habitat.

MOTHS & FOODPLANTS: *Glena cognataria* larvae on *Prunus pensylvanica*, *Lomographa* (*Bapta*) *semiclarata* larvae on same plus *P. pumila* complex, *Apodrepanolotrix liberaria* on *Ceanothus americana*, *Nemoria* sp. on *Comptonia* 24-25 June; *Eilema* (*Lexis*) *bicolor* 18 July, *Holomelina laeta treatii* 2 July, Jefferson & Coos Co. (JPH); *Zanclognatha martha* 21-23 July, *Mocis latipes* 4 Oct., *Catocala gracilis*, *C. andromedae*, *C. preaclara* (♂ nectaring at night at *Apocynum* sp.), *C. similis* 21-31 July; *Cerma cora* larva on *P. pensylvanicum*, *Acronicta lanceolaria* larve on *Vaccinium pensylvanicum* and *Quercus ilicifolia* 24-25 June; *Chytonix sensilis* 21 July; *Xylena curvimacla* larvae on *Q. ilicifolia*, *Comptonia*, and *Salix humilis*, *X. cineritia* on *Lupinus perennis* & *P. pumila* complex, *Lithophane thaxteri* on *Comptonia*, and *Chaetagnalea tremula* on *V. pensylvanicum* 24-25 June; *Apharetra purpurea* 21-31 July; *Oncocnemis piffardi* 26 Aug. Jefferson (JPH); mature larva of *Cucullia speyeri* late July on *Erigeron canadensis*.

VERMONT. Heavy flight of *C. inornata* 28 August, Windham & Bennington Counties. (HP).

MASSACHUSETTS. **BUTTERFLIES:** *Artogeia virginensis* 5 May, Chester Center, Hampden Co. (HP); *Speyeria idalia* diminished pop. count of 47 worn ♂♂ and 100 fresher ♀♀ late Aug., Martha's Vineyard (DS); *C. inornata* 2nd brood 2 Aug., Reading, Middlesex Co. (SG).

MOTHS: *Semiothisa eremiata* flushed from *Tephrosia*, cocoons of *Cingilia catenaria* on *Baptisia*, Martha's Vineyard, Dukes Co., late Aug. (DS); *Hemileuca maia* larvae on *Q. ilicifolia* in Mashpee and Bourne, Barnstable Co., and Miles Standish State Forest (MSSF), Plymouth Co. 17 July (DS); *Sphinx drupiferarum* larva on *Amelanchier nantucketensis* late Aug., Mar. Vin. (DS); *Schizura apicalis*, *Crambida* sp. nov. #2 of Forbes, 5 Aug., MSSF (DS); *Platartia parthenos* 8 July, Provincetown, Barnstable Co. (MM); *Arctia carya* Wellfleet, Barnstable Co., no date (SS); *Dasychira pinicola* 5 Aug., MSSF (DS); *Zanclognatha obscuripennis* 21 June, Provincetown, *Parascotia fuliginaria* 30 June, Wellfleet, *Zale* sp. nov. nr. *lunifera* 3 June, Provincetown, *Catocala muliercula* 15-29 Aug., *C. vidua* common 28 Aug.-16 Oct., S. Dartmouth, Bristol Co. (MM); *C. herodias gerhardi*, no dates, MSSF (DS); *C. minuta* 5 Aug. and *Syngrapha octoscripta* 1, 11 Aug., Provincetown, *Bagisara rectifascia* 27 June, S. Dartmouth (MM); *Acronicta albarufa* 5 Aug., MSSF, also reared on *Q. ilicifolia* ex ova (DS); *A. lanceolaria* 1 June, Wellfleet, *Hypocoena defecta* 5 Aug., Wellfleet, 7 Aug., Provincetown, *Platyperigea merialis* 9 Sept., Wellfleet (MM); *Xylena nupera*, *cineritia* & *curvimacla*, early Nov., MSSF (DS); *Lithophane viridipallens* 6 May, Provincetown (MM), early Nov., MSSF (DS). *L. tepida atincta* common, *L. antennata* abundant (no *querquera*), true *Eupsilia sidus* by thousands at bait Nov., MSSF (DS); *Sericaglaea signata* 4 Nov., S. Dartmouth (MM); *Metaxaglaea viatica* (only 1), *M. semitaria*, *Chaetagnalea tremula*, *C. sericea* all common but worn ♀♀, at bait, while *C. cerata* came only to UV light, *Psectraglaea carnosus*, one resting on building, early Nov., MSSF (DS); *Apharetra purpurea* 5 Aug., Provincetown, *Lacanobia radix* 30 June, Wellfleet (MM); *Agrotis subterranea* early Nov., MSSF (DS); *Eucrocnemis fimbriaris* 4 Oct., Wellfleet, *Loxagrotis declivis* 31 July, S. Dartmouth (MM); *Anicla infecta* early Nov., MSSF (DS); *Acetia fennica* 1 Sept., *Aplectoides condita* 14 June, Provincetown, *Cryptocala acadensis* 5 Aug., Wellfleet (MM); *Schinia septentrionalis* 18 Sept., Dover, Norfolk Co. (DW); *S. bifascia* & *S. lynx* 31 July, S. Dartmouth (MM).

RHODE ISLAND. First report in many years, all HP.

BUTTERFLIES: Chrome-yellow aber. ♀ *Colias eurytheme* 12 June, S. Kingston, Washington Co; *S. acadica* 18 July, Coventry town, Kent Co.; *I. henrici* 24 Apr., 7 May, Great Swamp, Washington Co.; *B. arthemis* "*proserpina*" 27 June, Coventry town and 8 Aug., Exeter town, Washington Co.; *B. archippus* variants - "*lanthanis*" widespread throughout summer, "*watsoni*" facies 21 June, Coventry and 8 Aug., Exeter, and many of "*floridensis*" facies 8 Aug., Great Swamp; *M. cymela* I, 2-11 June, Great Swamp; *M. cymela* II, many areas 6 July-8 Aug.

CONNECTICUT. All DS except as stated.

BUTTERFLIES: DS quotes a sighting of *Speyeria idalia* in Litchfield Co. by Robt. Muller in 1980. *A. milberti* worn hibernator 30 April, Colchester, New London Co. (HP); *V. virginensis* & *cardui* present in New Haven Co. by 30 April.

MOTHS: *Orthofidonia flavivenata* very common 30 Apr.-14 May, easily flushed from low on lichen-covered trees, and reared on *Viburnum acerifolium* ex ova, S. New Haven Co.; *Paleacrita merricata* (late) early April, Wallingford, New Haven Co., easternmost record until MM, Provincetown MA 23 Apr., 6 May probables are confirmed; *Automeris io* 12 June, Wethersfield. *Catocala* reported almost as scarce as '82 (LG).

NEW YORK. **BUTTERFLIES:** *P. communis* very numerous 2 Aug., Groton, Tompkins Co. (CB); *Falcapica midea* 7 May, Nyack, Rockland Co. (CB); *Parrhasius m-album* early Sept. '82 & '83, Suffolk Co., Long Island (HP); *Euphydryas phaeton* numerous very worn 30 July, Cortland, Cortland Co. (CB); *M. cymela* II several sites W. Suffolk Co. 17 June-17 July (HP).

MOTHS: *Croesia forskaleana* 5 July, Endwell, Broome Co., a western dispersal from point of introduction on Long Island; *Semiothisa promiscua* 4 July, Liberty, Sullivan Co.; *Plusia putnami* 5 July, Endwell (all RL, whose first *Lymantria dispar* will not be immortalized here!).

NEW JERSEY. **BUTTERFLIES:** *Poanes viator* 27 July, 1 Aug., Cedar Grove, Essex Co. (RM); numerous emerging *Feneseca tarquinius* 5 June, Mahwah, Bergen Co. (JB, who was so excited by this carnivorous species that he fell and fractured a digit!).

MOTHS: *Vitacea* (*Memphrus*) *polistiformis* 7 May, "Pine Barrens" (RM).

PENNSYLVANIA. **BUTTERFLIES:** *S. hayhurstii* 8 June, Lititz (AS) and June & Aug., Leola (MW), Lancaster Co.; *Hylephila*

phyleus 13 Aug., Leola (MW); Atalopedes campestris 24 Sept., Lititz (AS), Hyllolycaena hyllus 25 July, Lititz (AS); Parrhasius m-album 12 July, 3-5 Sept., Lititz (AS) and 11-18 July, Leola (MW); E. claudia 17 Sept., Martin's Creek, Northampton Co. (WB); S. idalia infrequent 8 & 15 July, Gettysburg, Adams Co. (CS); B. a. arthemis 9 July, Pike Co., after no sightings for 25 years (WB).

MOTHS: Ancylis muricana, Acleris ? implexana, Archips grisea 10 May, Valley Forge, Chester Co. (RL).

MARYLAND. **BUTTERFLIES:** Lerema accius 12 Sept.-15 Oct., Calvert Co. (JF) and 16 Sept., Baltimore Co. (WG); H. phyleus 10 July, 15-24 Aug., Calvert Co. (JF); H. leonardus 9 & 16 Sept., Balt. Co. (WG, JF), late on 31 Oct. in CALVERT CO. (JF), and pale form near "stallingsii" 3 Sept., Soldiers' Delight, Balt. Co. (PK); Problema bulenta 10-27 July, Dorchester Co., Eastern Shore (discovered by R. Smith: JF); Poanes viator 11 July, Calvert Co., taken by crab spider (JF); A. hegon 14 May, Green Ridge St. For., Allegany Co. (PK); P. ocala 16 Oct., Salem, Dorchester Co. (PK); E. olympia 21 Apr., 14, 25 May, with F. midea 21 Apr. & 14 May, Allegany Co. (WG); latter also Calvert Co. 10 Apr. (JF) & Dorchester Co. (WG); C. eurytheme opened the season 3 March and closed it 14 Dec. in Calvert Co. (JF); Phoebis sennae 5 Aug., Calvert Co., becoming abundant through 9 Oct. (JF), Anne Arundel Co. 17-27 Sept., Dorchester Co. 16 Oct. (PK), for the best year since 1975; Feniseca tarquinius 28 April, Annapolis, 13, 28 June, Crownsville (PK) and Calvert Co. 7 July (JF); Calycopis cecropis 25 July, Calvert Co. (JF) and 3 Aug., Dorchester Co. (WG); P. m-album 25 Apr., 8 June, Allegany Co. (WG), Balt. Co. 5 & 9 Sept. (WG, PK), and 9 Sept. at Soldiers' Delight in Garden Writing Spider's web (PK); Agraulis vanillae 10 Aug., CALVERT CO. (sight, JF); S. cybele LATE, 27 Sept. Calvert Co. (JF); E. phaeton larvae 6 May, Crownsville, adult 19 June, Swain Hollow, Allegany Co., and near Catoctin Nat. Pk., Frederick Co. 25 June (PK); B. arthemis "albofasciata" 19 June, Swain Hollow and "proserpina" 26 July, Seneca, Montgomery Co. (PK); C. pegala alope LATE in Balt. Co. 16 Sept. (JF, WG).

MOTHS: Citheronia sepulchralis 10 July, Park Hall, St. Mary's Co. (PK).

ZONE 8 THE FAR NORTH: ALASKA, YUKON and NORTHWEST TERRITORIES, NORTHEAST SIBERIA. Coordinator: Kenelm W. Philip. Contributors: L. Crabo, F. Karpuleon (FK), J. Troubridge, K. Philip and collectors for the Alaska Lepidoptera Survey (ALS). Previously unreported localities or species are emphasized; collecting was by ALS volunteers unless noted. Note regarding Alaska Lepidoptera Survey; Under the auspices of the National Academy of Sciences/Soviet Academy of Sciences exchange program, K. Philip (and a field assistant, A. Jones) spent mid-June through mid-July collecting in the Magadanskaya Oblast', USSR (extreme NE Siberia). From 16-24 June collecting was carried out at three sites in the Okhotsk-Kolyma Uplands near Magadan; Snezhnaya Dolina (Snow Valley), 23 km north of Magadan; the "Rangifer" Station of the Institute of Biological Problems of the North (Magadan), SSE of Atka in the Yama River valley; and the Ola River at Yablanvevy. The major site was the Rangifer Station--larch taiga and scree from 2500' to 3400' elevation. From 26 June through 15 July collecting was carried out in the Markovo Depression (Anadyr' River, Chukotka) and in the hills forming its north and west boundaries. Habitats ranged from taiga, grassland, and tussock tundra near sea level to alpine tundra and blockfield from 1500' to 2250' elevation. The entire period was consistently sunny and hot, with good to superb collecting weather on 20 of the 25 days actually spent at field sites through 15 July; On 16 July the weather broke and the effective collecting season ended. The unusually hot summer advanced the flights of most species to the point that late summer species were on the wing near Markovo before the last week of June. Over 2080 specimens were obtained (see below for species, and map showing collecting sites). About 200 additional specimens were donated by Dr. D. Berman (Aborigine Station, upper Kolyma Valley) and Dr. E. Matis (Cheutakan River in eastern Chukotka, and Osinovaya/Gizhiga Rivers just NW of the Taigonos Peninsula). Sixteen ALS volunteers were active in Alaska, yielding 480 specimens.

NORTHWEST TERRITORY. No reports received.

YUKON TERRITORY. For Nickel Creek, off Quill Creek Road near Kluane Lake, Troubridge reports that Dave Parshall found Oeneis uhleri common (suggesting it is partially biennial, since it was very rare in 1982).

ALASKA. Weather: Interior Alaska had a "normal" spring and the summer was sunny and hot through mid-July.

RANGE EXTENSIONS: Butterflies; Oeneis excubitor from Koiyaktot Mt., E. of Howard Pass, Brooks Range (the first record west of the Anaktuvuk River--a 125 mile extension of the currently known range); Nymphalis vau-album from mile 40 Haines Highway at the AK/BC border--the only previous Alaska record is one specimen from Skagway at the LACM. Moths; Smerinthus cerisyi from mile 40 Haines Highway, [Again, the only previous Alaskan record is from Skagway (ALS)].

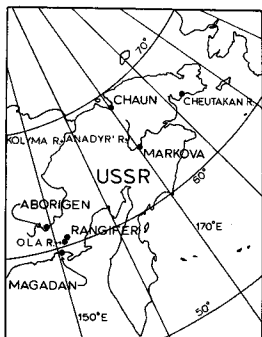
BUTTERFLIES: **NORTH SLOPE** - 11 miles up Katakturuk River, 3-8 June, Parnassius eversmanni, Colias hecla, C. boothii?, C. nastes, Clossiana freija, Oeneis bore, O. melissa, Erebia rossii, E. disa, E. fasciata; 8 miles up Kuparuk River, 24-25 July, Colias hecla, C. thula?, C. nastes, Agriades franklinii, Boloria napaea, Clossiana frigga, C. chariclea, Oeneis melissa. **BROOKS RANGE** - Crabo reports; SE end Koiyaktot Mt., E. of Howard Pass, 19-21 June, Papilio machaon, Clossiana freija, Oeneis melissa, O. excubitor, Erebia fasciata, E. occulta; Otirgon Creek at Nigu River and vicinity, 23-25 June, Parnassius eversmanni, Papilio machaon, Pontia occidentalis, Artogeia napi, Agriades franklinii, Clossiana polaris, C. freija, Oeneis polixenes, Erebia rossii, E. disa, E. fasciata, E. occulta, E. lafontainei; Inyuraktoak Creek at Nigu River and vicinity, 26-27 June, Papilio machaon, Colias thula, Clossiana improba, C. polaris, C. chariclea, Oeneis bore, O. polixenes, Erebia rossii, E. fasciata, E. youngi, E. lafontainei; Killik River 1.5 miles E. of Kadruakvik Creek, 5 July, Papilio machaon, Colias thula, C. nastes, Clossiana improba, C. polaris, C. freija, C. chariclea, Oeneis bore, O. polixenes, Erebia disa, E. fasciata; Egiklak Mt. vicinity, Easter & Suluk Creeks, 6-7 July, Colias hecla, C. thula, C. palaeno, C. nastes, Vacciniina optilete, Boloria napaea, Clossiana chariclea, Oeneis polixenes, Erebia lafontainei. **INTERIOR** - Bettles Field, 14-16 June, Crabo reports; Erynnis persius, Pontia occidentalis, Colias palaeno, Euchloe ausonides, Glaucopsyche lygdamus, Procllossiana eunomia, Clossiana frigga, C. freija, C. chariclea, Phyciodes pratensis, Oeneis jutta, Erebia discoidalis. Karpuleon reports; Camelback Mt., Kuskokwin Mts, 25 May to 12 June, Papilio machaon, Artogeia napi, Clossiana polaris, Oeneis bore, O. jutta, Erebia fasciata. **ALASKA RANGE** - Terra Cotta Mts., 28 mi. S. of Farewell (near Post Lake), 22 June to 5 July, additional species (see 1982 Annual Summary), Artogeia napi, Colias nastes?, Vacciniina optilete, Boloria napaea, Clossiana frigga, C. freija, C. chariclea, Oeneis jutta, Erebia disa, E. theano; Post River, 19 miles S. of Farewell, 5 & 11 July, Parnassius phoebus, Artogeia napi, Colias nastes?, Clossiana chariclea, Oeneis melissa, Erebia theano. **SOUTHCENTRAL ALASKA:** Willow Lake, mile 87 Richardson Highway, Copper River valley, 11-25 June, Erynnis persius, Pterourus glaucus, Artogeia napi, Colias gigantea, C. philodice, Euchloe ausonides, Glaucopsyche lygdamus, Plebejus saepiolus, Evers amyntula, Polygonia faunus, Coenonympha kodiak, Oeneis jutta, Erebia discoidalis; Manker Creek, Chugach Mts. E. of Klutina Lake, 15 July, Colias palaeno, Lycaeides argyrognomon, Plebejus saepiolus, Vacciniina optilete, Clossiana chariclea, Coenonympha kodiak, Erebia epipsodea; Tutka Bay Lagoon, Kenai Peninsula (across Kachemak Bay from Homer), 3-23 July, Artogeia napi, Epidemia dorcas, Clossiana selene. **SOUTHEASTERN ALASKA** - Haines Highway mile 39-41 (just S.

of AK/BC border), 24 April to 7 September, additional species (see 1982 Annual Summary), *Nymphalis vau-album*; Haines Highway, mile 26, 30 May & 23 June, *Artogeia napi*, *Plebejus saepiolus*, *Everes amyntula*, *Celastrina ladon*, *Polygonia faunus*; Juneau, 14 May to 1 June, *Artogeia napi* was common, and no other butterfly was seen.

MOTHS: SOUTHEASTERN ALASKA - Haines Hwy mi. 34-41, 24 April-7 Sept., *Smerinthus cerisyi*, *Orgyia antiqua*; mi. 26, 30 May and 23 June, *Alypia langtoni*, *Eulype hastata*. NORTH SLOPE - 8 mi. up Kuparuk River, 24-25 July, *Barrovia fasciata*. INTERIOR - Ft. Wainwright, Fairbanks, 9 July, *Platartia parthenos* (FK).

MAGADANSKAYA OBLAST' (see map below for localities). Weather: Normal spring followed by unusually hot, clear summer through mid-July. OBLAST' RECORD: *Clossiana dia* from Snezhnaya Dolina. RANGE EXTENSION: *Scolitantides orion* from Snezhnaya Dolina--the only previous record was from the mouth of the Yama River, about 100 miles to the east; *Oeneis nr. excubitor* from Opalyonnaya on the Anadyr' River WNW of Markovo - It is not yet known whether this is the first Palaearctic record for *O. excubitor*, or merely a new record for *O. alpina*. FOODPLANT: *Saxifraga bronchialis* is the probable foodplant for *Clossiana distincta* - No oviposition was seen, but dense colonies of the butterfly were found in close conjunction with this plant in scree and blockfield at several sites.

BUTTERFLIES: OKHOTSK-KOLYMA UPLANDS - Snezhnaya Dolina (Snow Valley), 23 km N. of Magadan, 16 June, *Carterocephalus palaemon*, *Papilio machaon*, *Artogeia napi*, *Euchloe "orientalis"*, *Oeneis jutta*, *Erebia embla*, *E. edda*, *Euphydryas intermedia*, *Clossiana euphrosyne*, *C. dia*, *C. freija*, *Callophrys rubi*, *Scolitantides orion*; Research Station



"Rangifer", 26.5 km SSE of Atka on south side of Yama River valley, 17-23 June, *Pyrgus centaureae*, *Hesperia comma*, *Parnassius evermanni*, *P. tenedius*, *Papilio machaon*, *Artogeia napi*, *Synchlœ callidice*, *Colias melinos*, *Euchloe "orientalis"*, *Oeneis jutta*, *Erebia disa*, *E. embla*, *E. discoidalis*, *E. fletcheri*, *E. dabanensis*, *E. occulta*, *E. kozhantshikovi*, *Polygonia c-album*, *Clossiana freija*, *C. angarensis*, *C. sp. (erda-group)*, *C. distincta*, *Agriades aquilo*, *Glaucopsyche lygdamus*; The following additional species were obtained at this site in July and August of 1982 - *Parnassius phœbus*, *Coenonympha kodiak*, *Erebia ligea*, *Boloria pales*, *Procllossiana eunomia*, *Everes argiades*, *Polommatus icarus?* - Habitats at this site included larch taiga (2500'-2900'), river floodplains (gravel bars and low shrubs, scree slopes at base of hills along valley sides), and hills with sides and summits covered with fine scree; Ola River at Yablannevy, 24 June, *Carterocephalus silvicola*, *Artogeia napi*, *Colias hyperborea*, *Euchloe "orientalis"*, *Oeneis jutta*, *Erebia theano*, *Aglais urticae*, *Euphydryas intermedia*, *Clossiana euphrosyne*, *C. selene*. MARKOVO VICINITY, CHUKOTKA - Ubienska and Anadyr' Rivers, 53 to 74 km NNE, 55 km NE by N, and 62 km NE by E. of Markovo, 26 June to 4 July, *Carterocephalus palaemon*, *Pyrgus centaureae*, *Artogeia napi*, *Colias palaeno*, *Oeneis bore*, *O. polixenes?*, *O. sp.*, *O. jutta*, *Triphysa phryne*, *Erebia rossii*, *E. disa*, *E. embla*, *E. fasciata*, *E. discoidalis*, *E. kozhantshikovi*, *Euphydryas iduna*, *Procllossiana eunomia*, *Clossiana frigga*, *C. freija*, *C.*

chariclea, *C. sp. (erda-group)*, *C. distincta*, *Agriades aquilo*, *Vacciniina optilete* - Habitats ranged from grassland and tussock tundra to *Pinus pumila* thickets and blockfield on low ridges; Gorelovye Gory (north edge of Markovo Depression, about 70 km NNE of Markovo), 1500'-2250', 4 & 11-15 July, *Parnassius evermanni* (common), *Synchlœ callidice*, *Colias palaeno*, *C. nastes*, *C. sp.*, *Oeneis melissa*, *Erebia disa*, *E. fasciata*, *E. dabanensis*, *Euphydryas iduna*, *Boloria napaea* (common), *Procllossiana eunomia*, *Clossiana frigga*, *C. freija*, *C. chariclea*, *C. thore*, *C. sp. (erda-group)*, *C. distincta*, *Agriades aquilo*, *Vacciniina optilete* - Habitats were lichen tundra, tundra meadow, and blockfield/scree; Opalyonnaya, Anadyr' River 45 km WNW of Markovo, 150'-1400', 9 & 11 July, *Papilio machaon*, *Synchlœ callidice*, *Colias palaeno*, *Triphysa phryne*, *Oeneis melissa*, *O. nr. excubitor*, *O. jutta*, *Erebia disa*, *E. embla*, *E. fasciata*, *Procllossiana eunomia*, *Clossiana freija*, *C. chariclea*, *C. sp. (erda-group)*, *Vacciniina optilete*; Anadyr' River, 65-86.5 km W. by N. of Markovo, 9 July, *Colias palaeno*, *Oeneis jutta*, *Boloria napaea*, *Procllossiana eunomia*, *Clossiana frigga*, *C. chariclea*, *Vacciniina optilete*. CHUKOTSK PENINSULA - Mouth of Cheutakan River, east of Kresta Bay, 7-11 July, *Oeneis melissa*, *Erebia rossii*, *E. disa*, *E. fasciata*, *E. occulta*.

ZONE 9 NORTHERN NEOTROPICS: MEXICO, CENTRAL AMERICA. Coordinator: Eduardo C. Welling M. Contributors: George W. Busby (GWB), Loran Gibson (LG), Richard Holland (RH), Michael McInnis (MM), David Pinder (DP), Eduardo C. Welling M (EW). There seemed to be one single word to describe weather conditions almost everywhere throughout Central and Southern Mexico and at least northern Central America--drought. Crop failures were widespread, only worsening conditions under the prevailing economic crisis, coupled with agricultural plagues. Hoards of forest rats ate any few possibly maturing ears of corn in Quintana Roo. Despite this dismal condition, word was received via the proverbial grape vine that there were insects in abundance in some parts of Mexico. What effects the drought will have on 1984 collecting will have to be seen.

MEXICO, States of VERACRUZ and PUEBLA. Busby, reporting for himself, LG, MM and DP sent a typed report for 9 localities in these 2 states without delineating which species were from which localities or states.

BUTTERFLIES: Numbers of species per family breakdown were reported as follows: Papilionidae 18, Pieridae 33, Danaidae 4, Acraeidae 1, Heliconiidae 12, Ithomiidae 12, Libytheidae 2, Nymphalidae 65, Morphidae 2, Satyridae 13, Brassolidae 4, Riodinidae 32, Lycaenidae 86, Hesperidae 124. These were taken from July 24 through August 4. It was noted that the number of species and individuals were down from the previous year. Some of the rarities found were *Ipipecla schausi*, *Erora carla*, *Thecla muridasca*, *T. minthe*, *T. arza*, *T. phobe*, *Atlides polybe*, *Phaenochitonias sagaris*, *Tharops coruscans*, *Sarota gamelia*, etc. Anyone wishing a complete list should write to Mr. Busby.

MEXICO, SONORA. BUTTERFLIES: Holland on April 16, 12 km south of Palomas, found *Anthocharis pima*; At Cerro Bolas, just SW of Ciudad Juárez, from March 20 to April 11 he found *Euchloe hyantis*, *Pyrgus scriptura*, *Erynnis tristis tatus*, *E. brizo burgessi*, *Chlosyne definita* and *Apodemia mormo* near mejicanus among a total of 20 species taken.

MEXICO, YUCATÁN. Welling found collecting fair in spite of drought in the eastern part of the state, noticing however the practical absence of many species.

MOTHS: Sphingidae and Saturniidae made a poor showing.

MEXICO, QUINTANA ROO. BUTTERFLIES: Welling noticed a fair start in early June, however, due to drought this good beginning soon withered away and collecting was very poor by August.

MOTHS: In early June a few Saturniidae were taken, but Sphingidae were poor all year.

BELIZE. Welling found butterflies scarce at Middlesex, Stann Creek District, in early July. However, Sphingidae and Saturniidae were a bit better without reaching the point of being fair.

ZONE 10 SOUTH AMERICA. Coordinator: Boyce A. Drummond. No reports were received this year. It seems unfortunate that despite the Holbrook Travel Agency's organized collecting trips, under Tom Emmel's guidance, to various South American collecting sites, there have been no reports in the Season Summary from the participants in these tours.

ZONE 11 ONTARIO. Coordinator: Quimby Hess. Contributors: G. J. van Dorsser (GJD), Dr. W. J. D. Eberlie (WJDE), William M. Edmonds (WE), David H. Elder (DHE), Forest Insect & Disease Survey [Environment Canada] (FIDS), Barry Harrison (BH), Quimby F. Hess (QFH), Peter Hess (PH), Tom Toyomi Ikeda (TTI), James Kamstra (JK), Kenichi Kano (KK), Ross A. Layberry (RAL), Mike K. Matheson (MM), Jack E. Pilkington (JP), John Prideau (JPX), George Sutton (GS).

The 1983 Lepidoptera season in the Province of Ontario was affected by the weather during the winter of 1982/1983 which was one of the mildest on record with little or no snow. Despite the mild winter, spring arrived about 2 weeks later than normal as a result of a chilly spell in late March and in April and a cool, wet and dull May. The remainder of the season was mainly hot and humid. However, there were some cold spells at critical periods as well as droughts.

The populations of many species of butterflies were below normal and even absent during the season. However, some butterfly species remained at normal levels. Butterfly migrations into Ontario were below normal. For example, Danaus plexippus arrived in Ontario about 2 to 4 weeks later than usual in the spring and did not reach northern Ontario at all. A few individuals reached the southern fringes of northwestern Ontario while in eastern Ontario D. plexippus reached northwards only to Muskoka/Haliburton districts, and then only as scattered individuals. The fall migration of D. plexippus out of Ontario was much below normal. One estimate was that it was only 10% of normal.

Other migrants into Ontario included Pyrissitia lisa which was recorded at Toronto and also along Lake Erie. Other spring migrants recorded in Ontario included Vanessa cardui and Vanessa atalanta. Also, the Black Witch moth (Ascalapha odorata) was recorded in September at London and Ottawa.

Butterfly species which were very scarce to not encountered in Ontario in 1983 include the following: Polygonia interrogationis, Polygonia comma, Polygonia faunus, Polygonia progne, Nymphalis vau-album J-album, Nymphalis antiopa, Junonia coenia, Speyeria atlantis, Libytheana bachmanii, Euptoieta claudia, Colias eurytheme, Papilio polyxenes asterius.

A notable range extension in 1983 was for Coenonympha inornata heinemani which was encountered for the first time in the Goderich area, Huron County (GS). The date was August 23rd, 1983, and the specimen is described as fresh. In T.E.A. Occas. Publication #14-83, page 9, Figure 3, the westernmost limits of this species in southern Ontario were shown as the Hanover/Listowel areas, about 40 miles east of Goderich. It is possible that the main pathway of this range extension was the Maitland River valley.

Another notable distribution record was Euphydryas phaeton at the edge of the Springgarden Prairie, Windsor, in Essex County on June 25th, 1983 (JP). This was a single very fresh male at Beard Tongue (Penstemon digitalis). A small patch of this plant occurs precariously at the edge of this Prairie due to city grass cutting operations. In southwestern Ontario E. phaeton has been recorded in Huron and Middlesex Counties but, as far as is known to the writer not in Kent, Lambton and Elgin counties, and not in Essex County until this record.

Life histories for some Ontario Lepidoptera in defined localities have been reported by members of the Toronto Entomologist's Association (TEA) in its Occasional Publications since, and including, 1977. These reports include the following species: Incisalia polios (Pinery Provincial Park), Epidemia epixanthe (Capetown Bog), Artogeia virginienensis (Halton County, Fontenac County), Pholisora catullus (St. Williams), Heraclides cressphontes (Point Pelee), Battus philenor (Oakville), Euchloe olympia (Lambton County, Peterborough County, Renfrew County), Artogeia napi (Northumberland County, Frontenac County), Epidemia dorcas (Bruce County), Epidemia helleoides (Waterloo County), Feniseca tarquinius (St. Williams), Coenonympha inornata (Northumberland County), Hemileuca sp. near lucina (Carleton County), Lycaides melissa samuelis (Lambton County, Norfolk County), Satyrus calanus falacer (Carleton, Renfrew, Lanark, Grenville Counties), Euphyes bimacula, Euphyes dion, Polites origenes, Poanes viator, Poanes massasoit (Carleton County), Hyalophora columbia (Muskoka, Haliburton, Rainy River Districts), Danaus plexippus (Waterloo County), and Euptoieta claudia (Oakville).

To obtain copies of the TEA Occasional Publications (ISSN#: 0710-0574 since and including 1980) contact: - TEA, 34 Seaton Drive, Aurora, Ontario L4G 2K1, Canada. Two recent publications of interest may be obtained from R. Gray, 36 Haslemere Rd, Toronto, Ontario M4N 1X5, Canada.

1. "Butterflies of Algonquin Provincial Park" by John Reynolds [Ontario Field Biologist, December 1982 - Volume 36 (2)]. The 77 species recorded in the park are listed with comments concerning their abundance, habitats and seasonal occurrence.
2. "Butterflies of Point Pelee National Park, Ontario" by Alan Wormington [Ontario Field Biologist, June 1983 - Volume 37 (1)]. A total of 68 species of butterflies are discussed in detail including information on status, habitat, natural history notes and distribution in the park.

There is a nominal charge, plus postage, for both TEA and Ontario Field Biologist publications.

ZONE 12 PACIFIC ISLANDS (HAWAII): Interim coordinator: R. L. Langston. No contributions were received from either residents or transients. This entire report is based on an 8-day visit to the Big Island of Hawaii by Bob Langston.

ENDEMIC BUTTERFLIES: Vaga blackburni associated with Acacia koa, Kipuka Puau (Bird Park), Dist. of Kau, 28 Jan. Vanessa tameamea, KP 28 Jan. & Akaka Falls, 11 mi. N. of Hilo, 29 Jan., fresh & worn.

INTRODUCED BUTTERFLIES: Throughout the Big Island (some rather common) were: Hylephila phyleus, Papilio xuthus, Pieris rapae, Strymon bazochii, Lampides boeticus, Agraulis vanillae, Vanessa virginienensis, V. cardui, V. atalanta & Danaus plexippus (details if requested). Brephidium exilis associated with Atriplex semibaccata, Puako Beach, Dist. of South Kohala, NEW ISLAND record, 30 Jan.; common around Chenopodium album, refuse disposal area, Puako Bay, 30 Jan.; Lapakahi Historical Site, 6 mi. SW. of Hawi, Dist. of North Kohala, associated with Chenopodium spp., 31 Jan.--these populations appear to have been established for quite some time--[B. exilis first found on Oahu, June 1978, then Kauai, May 1982]. All early stages of Danaus plexippus on Crown Flower bushes, Puako Beach, 30 Jan., plus many normal orange adults and 1 ♂ albino. OAHU: A single Tmolus echeon nectaring on pink-flowered ornamental, Honolulu Airport, 2 Feb.

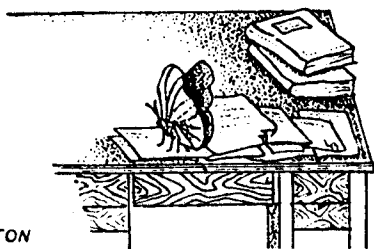
MOTHS: Mostly the introduced species, rather than endemics, none were determined as NEW for the islands. SPHINGIDAE - Agrius cingulatus, Honalo, Dist. of North Kona, 1 Feb. & freshly emgd., Captain Cook Village, Dist. of South Kona, 1 Feb. NOCTUIDAE - Pseudaletia unipuncta, Honalo, 1 Feb.; Plusia chalcites widespread both sides of island, 27 Jan.-1 Feb.; Achaea janata & Melipotis indomita, Kailua - Kona, 26 Jan.-2 Feb.; Hypena obsoleta, Capt. Cook Village, 27 Jan., 1 Feb. & Waimea, Dist. of South Kohala, 29 Jan. GEOMETRIDAE thru micros. - Cyclophora serrulata, the Kao Haole moth--Semiothisa santaremaria (very abundant), Anacamptodes fragilaria, Hymenia fascialis (common), Hedylepta localis, Oecia constricta, Nomophila noctuella, Orthomecyna exigua, Cryptoblabes aliens, Megalorhipida defectoralis, Amorbia emigratella, Epiphyas postvittata & Ethmia colonella (details if requested).

ALUMNI ACHIEVEMENT AWARD TO J.F. GATES CLARKE

The former curator of the Smithsonian, J. F. Gates Clarke was honored for his research in the classification of moths on October 15, 1983 by Washington State University when he was presented with the WSU Alumni Achievement Award. He earned 3 degrees at WSU--a Ph.C. in Pharmacy in 1926, a B.S. in Zoology in 1930 and an M.S. in Entomology in 1931. He did post graduate work at Cornell and the University of Paris and earned his Ph.D. in Entomology from the University of London in 1953. He was a pioneer in research on the correlation of structure and habits in certain microlepidoptera which has led to an understanding of significant aspects of species formation and zoogeographic limitations. He has collected anatomical and physiological evidence which has helped clarify factors governing selection and potential for species to survive and also offers a clue to geological age and rate of change in species. His work has led to similar studies by other researchers and has become the foundation for sound classification of various groups of insects now widely used worldwide.

During his professional career, he spent more than 20 years at the Smithsonian, holding positions as chairman of the Dept. of Entomology and Senior Scientist. He has had Emeritus status since 1975 but continues as a research associate. He is widely published and the recipient of many honors, including a commendation award from the Smithsonian and the 1979 Jordan Medal of the Lepidopterists' Society. Four genera of Lepidoptera and 30 species of insects have been named in his honor.

From The Editor's Desk



JUNE PRESTON

There are still a number of unpublished letters on my desk, but space allows me to include only 2 or 3 per issue. I also have a good supply of interesting articles waiting for space. Since NEWS #6, 1984 will be the Membership Directory, some of you may have to wait until 1985 to see your article or letter in print, but please bear with me, since if I haven't returned it to you, I hope to use it when space permits.

Dear June:

I have read with much more than usual interest the articles appearing in the 1983 issues of the NEWS of the Lepidopterists' Society. Why? Because as a Lepidopterist of approximately 55 years, Dave Winter's "Which Pesticide To Use?" in the Jan/Feb issue could not have come to my attention at a better time.

Beginning in late 1982, I was experiencing physical difficulties. I was inclined to think that perhaps I was developing an ulcer, caused by the stress and strain of performing the duties of an officer of the National Family Association without the help of supporting officers. Duties had snowballed to the point where it was impossible to keep up with things. Nancy, fully aware of what was happening, demanded I visit the doctor for a physical, which I did. When all the tests and information were returned, the doctor in his consultation, said everything was fine...EXCEPT, and it's those "excepts" I learned you have to watch out for. Elevated enzymes indicated gall bladder or liver problems, so there followed any number of twice weekly jaunts to the hospital for X-rays, liver scans, and at the last a test for hepatitis. While awaiting the results

of that, I chanced to read Dave's article, as mentioned above, in 1983 NEWS #1. I've always been an outdoors person, never smoked, was athletically inclined until the past couple of years when an arthritic knee slowed down my activities. But mention of the fact that others entering a "bug room" might be offended by the odor, caused me to take pause and consider the possibility that I had been, or was being affected by close association with PDB, Naphthalene and perhaps in the past by carbon tetrachloride and/or cyanide.

In the meantime it had become apparent that both my regular doctor and the consulting physician were unsure just what my trouble was. On the premise that the articles in the NEWS might provide a clue, I took them to the doctor. It was evident that I had done the correct thing, for the information correlated with the results of the hepatitis test produced a diagnosis of "chemical based hepatitis" which was amplified with a more mundane title of what was referred to as a form of the "Old Dry Cleaners Disease," and that there had been at least some liver damage.

Some steps were prescribed which I followed and some improvement could be noted. Then occurred what I felt had to be confirmation of the diagnosis. It was necessary to spray the apple trees...and down I went. I'm better but there are indications that all is not well, and that care must continue to be exercised. I've been especially intrigued by the remark that this reaction can be an individualistic matter, not bothering one person whatsoever, but fatal to another. Meanwhile, I'm grateful to the NEWS of the Lepidopterists' Society and those publishing the letters and information. I've found that others were not as oblivious to the dangers of pesticides as I was.

Donald Eff
Boulder, Colorado

Dear June,

Maybe you can find someone who can bring some light into the utter confusion about the checklist situation. I am not a taxonomist but am one of the amateur collectors to which Dr. Ferris in his letter refers as being concerned to "... have to relabel their collections."

The 1981 checklist by Miller and Brown caused a controversy which needs to be resolved by the specialists. But I have in front of me the 1983 checklist from the MONA series with R. W. Hodges as editor in chief. This list differs in many respects from that by Miller and Brown. For example good old glaucus is no longer Pterourus but is back to Papilio. That would not be too noteworthy because different authors have different points of view, but it is amazing to read that the authors of the Section on Papilionidae are Miller and Brown!! Which Miller and Brown list is the valid one?

To complicate matters I found that the 1981 checklist (Memoir #2) is cited under "Literature" in the Hodges book as IN PRESS. How fast publishing goes in the age of electronic speed! What determines priority? The year of writing or the year of publication?

There is an additional catch. In this respect I can claim a certain expertise because I had some training in classical languages and had gone over upteen names when checking correctness of endings in species names for the N.A. BEETLE FAUNA PROJECT. I am quite familiar with Article 30 and related rules of the Nomenclature Code. These rules have been neglected in quite a number of cases in the 1981 checklist. However, they are all correct in the 1983 list. I will give only three examples. After decades of slow adaptation one could almost universally find the correct Papilio multicaudatus. In 1981 it was reverted to multicaudata. The 1983 list has it again correct as well as Satyrium californicum (instead of the wrong californica), and Heliconius erato petiveranus (not pertiverana). Incidentally, there is another book with Brown as coauthor, namely Ferris and Brown (Butterflies of the Rocky Mountain States) where the correct multicaudatus is used.

What is the "concerned amateur" supposed to use? The split 1981 list with many wrong endings or the more

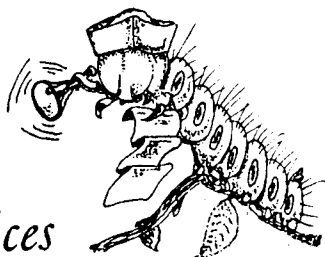
(continued on next page)

conservative list from 1983 with correct endings? Or is there somewhere a third list in print with still different names and endings?

I repeat my initial request for someone who can produce an explanation regarding the priority in publications, who may rule on the validity of one or the other list so that relabelling can start with some hope of it not becoming necessary again after a short time.

Sincerely yours,

H. Flaschka
2318 Hunting Valley
Decatur, GA 30033



Notices

NEW EDITOR FOR SOUTHERN LEPIDOPTERISTS

Ron Gatrell of Goose Creek, South Carolina has assumed the duties of EDITOR for the Southern Lepidopterists Society. He notes that the Society is expanding their publication from just a newsletter to also include a bulletin series. They plan to publish the newsletter four times a year as they have been doing and the bulletin as often as funds and suitable material permit. They hope to have the first issue of the bulletin out by early summer. Ron is also calling for papers to be submitted for this new publication. They are most interested in short, less technical types of information. The types that most amateurs have a hard time getting published in the more sophisticated journals, not because they are unimportant articles, but because there is such a big backlog of submitted papers.

Dues are now \$5 annually for the Southern Lepidopterists. Anyone interested in receiving this exciting new publication series should send their \$5 to: Tom Neal, 3820 N.W. 16th Place, Gainesville, Florida 32605.

COMMITTEE ON NOMENCLATURE

A new species *Mitoura thornei* Brown (Lycaenidae) has been described recently from San Diego Co., California. The reference is: Brown, J. W. 1982(83). A new species of *Mitoura* Scudder from southern California (Lepidoptera: Lycaenidae). J. Res. Lepid. 21(4):245-254.

C. D. Ferris
P.O. Box 3351 Univ. Stat.
Laramie, WY 82071

CROSS INDEX OF MONA AND McDUNNOUGH NUMBERS

I am preparing a complete cross-index of all numbers from the McDunnough lists of 1938-1939 versus the new MONA checklist. It has occurred to me while doing this lengthy task that maybe others would find this information useful. I will send a copy of part or all to anyone requesting it for reproduction costs (5¢/sheet) plus postage and envelope. Please write first with your wants and I'll tell you how much to send (and if it is ready yet). The list comes two ways, so specify which: 1) in McDonnough sequence, with corresponding MONA, and 2) the other way around.

These lists are numbers only, no names, so won't help anyone who does not have access to the MONA list itself. Some of the re-arrangements are drastic, especially in the *Noctuidae*, so a list like this is a necessity for re-arranging collections.

Ron Leuschner,
1900 John St.,
Manhattan Beach, CA 90266, USA

JOURNAL UPDATE

The last issue of the Journal, Vol. 37, No. 2 was mailed in Sept. 1983. The next issue, Vol. 37, No. 3 should be in the mail by April 1984.

1984 ELECTION RESULTS

The 607 ballots cast in the Society's 1984 election of officers have been tabulated, with the results listed below. Successful candidates are indicated by an asterisk: all assume office on 8 July 1984 at the Annual Meeting in Fairview, Alberta, except for the new Treasurer, who takes office immediately. (NOTE: two candidates for Vice President from the U.S.A. received the two greatest number of votes; since the Constitution stipulates that no two Vice Presidents may reside in a given country, only one can be elected at this time.) Our thanks to all candidates for their willingness to serve the Society.

PRESIDENT ELECT:

*Don R. Davis	310
Roy O. Kendall	287

VICE PRESIDENTS:

*John C. Downey	514
*Javier de la Maza E.	436
*Vitor O. Becker	295
M. C. "Mo" Nielsen	438 (see above)

TREASURER:

*Eric H. Metzler	571
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EXECUTIVE COUNCIL MEMBERS-AT-LARGE:

*Robert K. Robbins	403
*Boyce A. Drummond	398
*John Lane	341
Tim P. Friedlander	307
Donald J. Harvey	241

KARL JORDAN MEDAL REPRESENTATIVE:

*Allan Watson	533
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(Votes not tabulated above consisted of abstentions and a total of five write-ins for the office of Treasurer.) Ballots are retained by the Secretary for three years and are available for inspection.

Julian P. Donahue
10 February 1984

OFFICERS OF THE SOCIETY ARE NOW AS FOLLOWS:

Through the 1984 Annual Meeting (8 July):

President	Lee D. Miller
President-Elect	Don R. Davis
Immediate Past President	Charles V. Covell, Jr.
Vice Presidents	Karolis Bagdonas Miguel R. Gomez Bustillo J. Donald Lafontaine
Secretary	Julian P. Donahue
Treasurer	Eric H. Metzler

After the 1984 Annual Meeting (8 July):

President	Don R. Davis
Immediate Past President	Lee D. Miller
Vice Presidents	Vitor O. Becker Javier de la Maza E. John C. Downey
Secretary	Julian P. Donahue
Treasurer	Eric H. Metzler

EXECUTIVE COUNCIL

(term expires at annual meeting in year indicated)

1984	Keith S. Brown	1986	John M. Burns
	Everett "Tim" Cashatt		Floyd W. Preston
	Thomas C. Emmel		Nancy E. Stamp
1985	Frances S. Chew	1987	Boyce A. Drummond
	Gloria J. Harjes		John Lane
	Eric H. Metzler		Robert K. Robbins

BACK-ISSUE ORDERS: PRESENT PROCEDURE....

NEW PRICES AND AVAILABILITY

Back issues are now available by one route alone: prepaid order mailed to the BACK ISSUE COORDINATOR. Because of the greatly increased postage and mailing costs, the following schedule of prices is now in effect:

JOURNAL (known as Lepidopterists' News in Vols. 1-12)

Vol. #	Price per volume	Price per issue
1 (Repro)	\$15	not sold separately
2-5	\$10	not sold separately
6-12	---	\$3
13-34	\$16	\$5
35-	\$20	\$6

Note:

- Supplements are extra, at \$4 each.
- Vol. 34, No. 2 (Clench Memorial) when ordered separately is \$8.
- When issues in a volume are missing, pro-rate cost of those remaining. A volume with one issue missing would thus be 3/4 of the normal volume price.

NEWS of the Lepidopterists' Society, per issue, \$1.50, except for 1982, #6 (Membership Directory) which is \$5.00.

Mail your orders, together with check for full amount (U.S. funds) payable to the Lepidopterists' Society, to Ron Leuschner, 1900 John St., Manhattan Beach, CA 90266, USA.

INVENTORY OF BACK ISSUES IN STOCK.....

LEPIDOPTERISTS' NEWS (fore-runner to JOURNAL) available:

- 1947 Vol. 1: Reproduction of original.
 Vol. 2: 1, 2, 3, 4, 5, 6, 7, 8, 9.
 Vol. 3: 1, 2, 3, 4-5, 6, 7, 8-9.
 Vol. 4: 1-2, 3, 4-5, 6-7, 8-9.
 Vol. 5: 1-2, 3-5, 6-7, 8.
 Vol. 6: 1-3.
 Vol. 7: 5, 6.
 Vol. 8: 1-2, 3-4, 5, 6.
 Vol. 9: 4-5, 6.
 Vol. 10: 1-2, 3-4, 5, 6.
 Vol. 11: 1-3, 4-5, 6.
 1958 Vol. 12: 3-4, 5-6.

JOURNAL, beginning with Vol. 13, 1959, 4 issues per year, plus three supplements in Vol. 23, 1969, three supplements in Vol. 25, 1971 and one supplement in Vol. 33, 1979: all issues are available EXCEPT Vol. 18, Nos. 1, 2, 1964; Vol. 19, Nos. 1 & 2, 1965; Vol. 21, No. 1, 1967; Vol. 24, Nos. 1, 2, 3, 1970; Vol. 27, No. 2, 1973.

NEWS of the Lepidopterists' Society, an informal publication initiated in 1959; the following are available:

- 1962, No. 3 (Season Summary).
 1965, No. 1, 5.
 1969, No. 1, 2, 6.
 1972, 4 (mem. list), 5, 6.
 1973, all issues.
 1974, No. 2, 5.
 1975, all but 2-3 (combined).
 1976, No. 1, 4.
 1977, all issues.
 1978, No. 1, 2, 5, 6.
 1979, No. 2, 3, 5.
 1980, all issues.
 1981, all but No. 1.
 1982, all issues.
 1983, all issues.



POSITION AVAILABLE

ASSOCIATE CURATOR OF ENTOMOLOGY: Carnegie Museum of Natural History, Carnegie Institute, has an opening for a lepidopterist, with a specialty in Heterocera preferred. Duties include providing leadership for four full-time staff, curation and management of over five million specimens, participation in exhibition, education, and public service programs, and conducting field work and quality research. Ph.D. and significant curatorial and research experience required. Salary commensurate with experience. Applicants should send resumé, selected reprints, and names, addresses, and telephone numbers of at least three references to: Dr. Robert M. West, Director, Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, PA 15213. Applications accepted until 30 March 1984. Carnegie Institute is an equal opportunity employer.

ICZN

Notice of plenary powers is issued in regard to the following cases. Information on these cases may be obtained from the Bulletin of Zoological Nomenclature, Vol. 40, part 4, published December 30, 1983. Correspondence should be addressed to the secretary, R. V. Melville, c/o British Museum (Natural History), Cromwell Rd, London SW7 5BD, ENGLAND within 6 months of the above date. Refer to reference number ITZN 11/4 (A.N.(S.)) 128.

Case No.

- 2436 Crinodes Herrich-Schäffer, 1855 and Pero Herrich-Schäffer, 1855 (Insecta, Lepidoptera): proposed conservation.
 1686 Euphaedra Hübner, [1819] (Insecta, Lepidoptera): proposed conservation under the plenary powers.
 1687 Ourocnemis Baker, 1887 (Insecta, Lepidoptera): proposed conservation under the plenary powers.



Research Notices

● I am trying to work out the range of Sandia mcfarlandi. Any records would be greatly appreciated, especially from west Texas, Mexico, or the eastern third of New Mexico. Additional records from the Albuquerque, Socorro, Carrizozo and Alamogordo areas in New Mexico are not needed. Richard Holland, 1625 Roma NE, Albuquerque, NM 87106.

● Castniioidea: Castniinae: I am presently involved in a revisionary study on the higher classification, phylogeny, taxonomy, zoogeography, and some aspects of the life history of the Castniinae. I am interested in obtaining data and/or specimens for identification in addition to knowledge concerning possible foodplant associations. Any information concerning immature and adult behavior would be helpful. Please contact me first prior to the shipment of material. Jacqueline Y. Miller, Allyn Museum of Entomology, Florida State Museum, 3701 Bay Shore Rd., Sarasota, FL 33580.

● Urgently need tiger beetles from every country to complete a comprehensive work on the tiger beetles of the world (Cicindelidae). I will buy specimens or exchange for butterflies or moths. If I don't have it, I'll try and get it for you. Write and tell me your interests or needs. Ed Gage, P.O. Box 380622, San Antonio, TX 78280.

(continued on next page)

● WANTED: to buy or trade for use in research project, pupae or cocoons of Antheraea polyphemus olivacea (Cockerell) from Arizona or New Mexico and Antheraea polyphemus oculatea (Neumoegen) from Utah or Colorado. Ova possibly considered as alternative. Thomas A. Miller, USAMBRDL Bldg 568, Fort Detrick, Maryland 21701.



New Members



AGNEW, CHARLES W.: Dept. of Entomology, Texas A & M Univ., College Station, TX 77843.
 BAILEY, WENDELL A.: 610 E. Chevy Chase, Apt. 6, Glendale, CA 91205.
 CARDE, DR. RING T.: Dept. of Entomology, Univ. of Mass., Amherst, MA 01003.
 CLARK, DAVID G. FRITZ: 2774 Arborcrest Dr., Decatur, GA 30033.
 CODELLA, SYLVIO G., JR.: Dept. Zool./Physiology, Rutgers Univ., University Ave., Newark, NJ 07102.
 COPP, SUSAN M.: 1441 Muirlands Drive, La Jolla, CA 92037.
 CUNNINGHAM, PAUL V.: Calabar District, Rio Bueno P.O., Trelawny Parish, JAMAICA W.I.
 HARDESTY, RICHARD L.: 228 Second Ave., #17, Kalispell, MT 59901.
 HULSE, GEORGE: 1745 N. Talman, Chicago, IL 60647.
 IFE, STEPHAN: 258 Stewart Rd., Lions Bay, W. Vancouver, B.C. CANADA.
 JASPERS, RICHARD: 3116 Lindsey Drive, Longview, WA 98632.
 JOENS, MISS VICTORIA: Box 6, Cushman, AR 72526.
 JUNDANIAN, DANIEL: 1415 Ontario, Corona, CA 91720.
 KENDALL, STANLEY E.: 1945 Washington Ave., Wilmette, IL 60091.
 KOFFEL, KEVIN: 2843 S. E. 43rd Court, Hillsboro, OR 97123.
 LAMPE, RUDOLF: Laufertorgraben 10, D-8500 Nürnberg WEST GERMANY.
 MACFIE, MRS. JEAN: 1527 Bolling Ave., Norfolk, VA 23508.
 MIKKOLA, DR. KAURI: Div. of Entom., Zool. Museum Univ., P. Rautatiekatu 13, SF-00100, Helsinki 10, FINLAND.
 MIYATA, AKIRA, D. Med. Sci.: Dept. Biology, Med. College of Oita, 1-1506 Idaigaoka, Hazamamachi, Oita-gun, Oita-pref., JAPAN 879-56.
 MURPHEY-SMITH, CAROLYN: 260 Vista del Parque, Redondo Beach, CA 90277.
 ONARAN, M. DR. OKTAY: Sisir/ Gemerek, Sivas, TURKEY.
 PENNER, HENRY D.: Box 427, Belize City, BELIZE.
 REBER, FLORENCE C.: 6727 Pampus Dr., Orlando, FL 32819.
 RICHERS, KELLY M.: 601 Taylor #5, Bakersfield, CA 93309.
 RYCHEN, KATHY: 3353 Earhart Road, Mt. Juliet, TN 37122.
 SALAZAR, JULIAN: Carrera 17a #49-13, Las Americas, Manizales, COLOMBIA, S.A.
 SCHEFFEL, GUNTER: 4701 Holdenstadt, Lindenstrasse 8, E GERMANY (G.D.R.)
 SHAFRAN, IRA, M.D.: 207 Smokerise Blvd., Longwood, FL 32709.
 SPRIGGS, RAY V.: 3649 New Hampshire Ave., N.W., Washington, D.C. 20010.
 TANGREN, DONALD R.: Box 10, Aultman, PA 15713.
 VALENTE, THOMAS E.: 1519 Durston Rd., Apt. B-4, Bozeman, MT 59715.
 WEAST, ROBERT: 5324 NW 78 Ct., Des Moines, IA 50324.
 WILLEM, I. R.: P.O. Box 8594, Verwoerdpark, Transvaal 1453, SOUTH AFRICA.
 WOLF, WERNER: Erlenstr. 8, D-8581 Bindlach, WEST GERMANY.

Address Changes



ADAMS, JAMES K.: Dept. Syst./Ecology, Univ. of Kansas, Lawrence KS 66045.
 ATKINS, ANDREW: 45 Caldwell Ave., Dudley, N.S.W. 2290, AUSTRALIA.
 AUSTIN, GEORGE T.: Nev. St. Museum/Hist. Soc., 700 Twin Lakes Drive, Las Vegas, NV 89107.
 BAKER, KENT: 4951 Wildrye, Boise, ID 83705.
 BELMONT, ROBERT A.: P.O. Box 2626, Naples, FL 33939.
 BRANDT, CAPT. JOHN H.: P.O. Drawer P, Alamosa, CO 81101.
 BROWN, F. MARTIN: change zip to 80911.
 BROWN, JOHN W.: San Diego Nat. Hist. Mus., P.O. Box 1390, San Diego, CA 92112.
 CARDOSO, DR. ALDO: add postal code CEP 57000.
 CASTILONIA, RAYMOND, M.D.: 35191 Holly, Yucaipa, CA 92399.
 CATALANI, HARRY K.: 3820 45th St.-Apt. 2, San Diego, CA 92105.
 CAVANAUGH, ROBERT W., JR.: VFA-106, P.O. Box 173, NAS Cecil Field, FL 32215.
 COTTON, ADAM MILES: change postal code to 10110.
 CRABO, LARS: 62 Calumet #1, Boston, MA 02120.
 DEMASI, VICTOR O.: change RFD 3 to #10 Simpaug Tpk.
 DOYLE, JOSEPH F., III: 13310 Bar C Drive, San Antonio, TX 78253.
 DREES, BASTIAAN M.: change zip to 77803.
 DYMAK, JOSEPH F., III: 2504 NE Pence, Kansas City, MO 64118.
 EADES, PETER LUIS: 1936 Pecan, Apt. 1, Fort Collins, CO 80526.
 EMMEL, DR. THOMAS C.: change zip to 32611.
 ERNSTING, GUY & SHELLEY: R.R.2, Ellinwood, KS 67526.
 FEE, FRANK D.: change zip to 16803.
 FEENY, PROF. P.: Ecology/System. Sect., Corson Hall, Cornell Univ., Ithaca, NY 14853.
 FLEMING, CHARLES G.: add Box 73 to address.
 GAGE, ED V.: P.O. Box 380622, San Antonio, TX 78280.
 HANSEN, KEN: P.O. Box 4214, Arcata, CA 95521.
 IVY, DR. EDWARD E.: P.O. Box 144, Clayton, CA 94517.
 KOPP, LARRY J.: add Box 30 to address.
 KRAL, TOM W.: change RR2 to P.O. Box 349.
 KUZUYA, TAKESHI, M.D.: Jichi Medical School, Minami-Kawachi-Machi, Tochigi-ken, JAPAN 329-04.
 LAWSON, PHILLIP R.: change zip to 43615.
 LOY, PETER W.: 1101 N. Osage, Claremore, OK 74017.
 MAJKA, CHRISTOPHER: 1171 Waterloo St., Halifax, NS B3H 3L6, CANADA.
 MARTIN, LELAND L.: change city name to Wakeman.
 MELTON, DR. LEE J., III: change zip to 55902.
 MERKER, C. G.: 821 Pleasant Hill, Wexford, PA 15090.
 MORI, JAMES R.: 6407 Bearden Lane, Modesto, CA 95357.
 NAGANO, CHRISTOPHER D.: Sch. of Forestry/E. S., Yale Univ., 205 Prospect St., New Haven, CT 06511.
 NEUNZIG, HERBERT H.: change zip to 27650.
 PATTERSON, RICKY L.: Rt. 1, Box 432, Vicksburg, MS 39180.
 PHILLIPS, W. LEVI: change zip to 84604.
 POGUE, MICHAEL G.: Univ. of Minn., Dept. of Entomology, 219 Hodson Hall, St. Paul, MN 55108.
 PRCHAL, STEVEN J.: change zip to 85743.
 REINHARD, HARRIET V.: change street address to 23 Belmont Ave.
 REINHARDT, RICHARD H.: 1953 Kimes Rd., York, PA 17402.
 ROBACKER, DAVID C.: Rt. 2, Box 183-2, Weslaco, TX 78596.
 ROBERTSON, RON: change zip to 95407.
 ROBB, LT. JEFFREY B.: COMNAVSVURFGRU WESTPAC, FPO San Francisco 96601.

RUPP, A. W.: Box 90, Priddis, AB T0L 1W0, CANADA.
 SAVAGE, PATRICK J.: P.O. Box 1412, St. George, UT 84770.
 SCHOLTENS, BRIAN: Div. of Biol. Sci., U. of Michigan, Ann Arbor, MI 48109.
 SHAW, LAWRENCE H.: 12071 Manley St., Garden Grove, CA 92645.
 SIELSKI, LES: P.O. Box 10083, Merrillville, IN 46410.
 SKALSKI, RICHARD J.: 1305 Shelter Creek Lane, San Bruno, CA 94066.
 SMITH, MICHAEL J.: 514 Great Park Dr., Newport News, VA 23602.
 SPELMAN, MORRIS: 6505 Winfield Blvd., Margate, FL 33063.
 STEHR, F. W.: change zip to 48824.
 STELNICKI, DR. THOMAS D.: 737 Congress Blvd., Suite G, New Port Richey, FL 33568.
 STEVENS, ROBERT E.: Dept. Zool./Entom., Colo. State Univ., Ft. Collins, CO 80523.
 STRAATMAN, RAY: change c/o P.O. to P.O. Box 255.
 SULLIVAN, J. BOLLING: 200 Craven St., Beaufort, NC 28516.
 SWISHER, WILLIAM L.: change zip to 93455.
 TAYLOR, MILTON DRAYNE: Rt. 7, Box 511, Anderson, SC 29624.
 TAYLOR, DR. RICHARD W.: change zip to 70527.
 TENNENT, JOHN, B.E.M., F.R.E.S.: 1 Middlewood Close, Fylingthorpe, nr Whitby, N. Yorkshire, ENGLAND.
 TREAT, ASHER E.: P.O. Box 51, Jerusalem Road, Tynningham, MA 01264.
 TURNER, DR. JOHN R. G.: 58 Ash Hill Drive, Shadwell, Leeds LS17 8JP, ENGLAND.
 TUTTLE, JIM: change zip to 48083.
 VALERIO, DR. R. A.: 1323 Princess Crescent, Moose Jaw, SK S6H 6V7, CANADA.
 VENEDICTOFF, MRS. NADIA: Casilla 6090, Quito, ECUADOR.
 VICKERY, DR. V. R.: Lyman Entom. Mus./Rsch. Lab., MacDonald College, 21,111 Lakeshire Rd., Pincourt, PQ H9X 1C0, CANADA.
 VOKOUN, WILLIAM, JR.: change zip to 60516.
 WEBSTER, REGINALD P.: Dept. of Entomology, Univ. of Mass., Amherst, MA 01003.
 WEEMS, DR. HOWARD V.: change zip to 32602.
 WIKER, JAMES R.: R.R.#1, Railroad St., Athens, IL 62613.
 WILLIAMS, A.: P.O. Box 1073, Burlingame, CA 94011.
 WILSON, MICHAEL: 1987 Smith Grade, Santa Cruz, CA 95060.
 WISEMAN, JAMES C.: 382 Palos Verdes Blvd. #11, Redondo Beach, CA 90277.
 YODER, D. J.: Rt. 2, Box 538A, Twin Lakes, Cape Girardeau, MO 63701.

FOR SALE: Butterflies of the palearctic region such as USSR, Hungary, Czechoslovakia, Germany, etc.
 WANTED: Heliconius, Agrias and Cetonidae (Coleoptera, worldwide). Write to Wilfried Braun, Pferdsbruchweg 1, 5107 Simmerath, WEST GERMANY.
 EXCHANGE: I am looking for reliable collectors who wish to exchange western Catocala only for Eastern Catocala species next summer. Or I can also supply Euptychia mitchellii and Hesperia ottoe. Send list of species to offer and desired to Wayne A. Miller, 2209 Parkview, Kalamazoo, MI 49008.
 FOR SALE OR EXCHANGE: Western Butterflies. Wanted Speyeria, Colias, Papilios, Euphydryas and Saturnids especially Hemileucas. Elmer W. Griepentrog, Elsie Rt. Box 740, Seaside, OR 97138.
 EXCHANGE OR FOR SALE: Many butterflies (worldwide); Morpho, Papilio, and all other families and moths for sale at wholesale prices or exchange for tiger beetles (Cicindelidae). Single specimens or large numbers needed; will exchange butterflies from all countries or moths for worldwide tiger beetles or whole collections. Write for list ASAP. Send SASE for immediate reply. Ed Gage, P.O. Box 380622, San Antonio, TX 78280.
 FOR SALE: Books on Lepidoptera. Send SASE for lists to Les Sielski, P.O. Box 10083, Merrillville, IN 46410.
 WANTED TO BUY: Monographs, papers, revisions and original descriptions of North American moths including, but not limited to, works by Grote, Smith, Barnes et al., Hulst, Edwards, Draudt (in Seitz), Heinrich, etc. George T. Austin, Nevada State Museum and Historical Society, 700 Twin Lakes Drive, Las Vegas, Nevada 89107.
 FOR SALE: Lepidoptera: Hesperidae, Notes on Species-Group Names, by Charles A. Bridges, 1983. Catalogs 9039 names. Bibliography of 1640 items. Published by the Author; 290 pp. Price (post paid); \$37.50. Available from the Author, 502 W. Main St., Apt. 120, Urbana, Ill. 61801.
 WANTED: Specimens and/or precise, preferably recent, unpublished or obscurely published locality, date, and habitat data for any taxon in the following Pierid genera; Baltia (Himalaya-Pamir-Tibet-China) Piercolias, Infraphulia, Pierphulia, Hypsochila (except H. wagenknechti wagenknechti) (Andean region). Correspondence with anyone having recent experience with these animals is solicited. Arthur M. Shapiro, Department of Zoology, University of California, Davis, CA 95616, USA.
 FOR EXCHANGE OR SALE: Want butterflies and moths from anywhere for North Eastern USA specimens. Have a modest assortment in stock and can expand next season. Also will be collecting Cicada septendecim in June (local emergence). Send SASE to John W. Morris, 217 Parsons Rd, Camillus, New York, 13031.

FOR SALE OR EXCHANGE. Cocoons of Attacus imperator, lorquini and caesar for other Saturniidae or butterfly pupae. Many other species of Saturniidae, Sphingidae, and Papilio available. Send SASE for list. Large selection of papered Lepidoptera for sale. Send \$1.00 for lists. Correspondence and exchanges welcome. Write to Len Hart, 68 Stanhope Road, South Shields, Tyne & Wear NE33 4BS, ENGLAND.
 FOR SALE: Pupae of Hyloicus luscitiosa, Papilio glaucus, P. troilus, Callosamia promethea and Eacles imperialis. Write for prices to William Houtz, RD #4, Box 477, Pinegrove, PA 17963.
 FOR SALE: Hyalophora euryalus cocoons from west-central Sierra Nevada. Limited supply in a poor year. SASE for details. R. Wells, 304 Hoffman St., Jackson, CA 95642.
 FOR SALE OR EXCHANGE: Pupae of C. promethea, A. io, A. luna, S. drupiferarum and E. imperialis. Papered specimens of Sphinx franckii with full data. Also a limited supply of papered R. jorulla, R. orizaba and C. splendens sinaloensis. Send SASE for information to Paul A. Shealer, R.D.#5, Box 394, Leighton, PA 18235.

Buy Sell Exchange

Items submitted for inclusion in this section are dealt with in the manner set forth on page 10 of the Jan/Feb 1984 NEWS. Please note that in keeping with the guidelines of the Society, henceforth no mention of any species on any threatened or endangered species list will be accepted in these items. Items will be accepted from members only and will be printed only once unless entry in the maximum of two successive issues is requested. Please keep items short. A maximum of 100 words is allowed. SASE calls for a self addressed stamped envelope.

The Society, as always, expects all notices to be offered in good faith and takes no responsibility for the integrity of any advertiser.

WANTED: Scientific Illustration by John L. Ridgway, 1938, original edition, Stanford University Press, Stanford, Calif. State price and condition. Elaine Hodges, 8309 Rosette Lane, Adelphi, MD 20783.

FOR SALE: In hopes of recouping expenses for the 1983 Sesiidae project, I am selling GUARANTEED NOVEL Lep.-type gifts. Mounted butterflies, but presented in a fashion which I've never seen. Cost guaranteed to be unusually low, or complete refund offered. I've seen catalogs cost more! All funds to be applied to the 1984 pheromone project leading to a publication. Dr. John Holoyda, 2819 N. Marmora, Chicago, ILL 60634. Send SASE or phone (312) 237-0543.

FOR SALE: Catocala ova - cerogama, concupens, residua, obscura, relicta and a few others. Also Pieris virginiensis pupae. Will exchange for other Catocala ova. Also FOR SALE or EXCHANGE: Western Pennsylvanian L. a. arthemis, C. harrisii liggetti, L. astyanax hybrids, etc. A few S. diana reared pairs, C. ebenina, E. laeta ♀'s for other hard to obtain specimens. Send offers to Frank R. Bodnar, Box 52, Spring Church, Penna. 15686.

BEST OFFER: The Butterflies of New England, 2nd Edition, by C. J. Maynard, Newtonville, Mass. 1891. Ten hand colored plates, 106 species, at least two figures of each. The hand coloring is very neatly done. The ends of the spine are worn thin, otherwise covers are good and solid. Send offers to A. E. Brower, 8 Hospital St., Augusta, ME 04330.

FOR SALE: A small collection of butterfly books, including Butterflies of Lebanon, Formosa, Japan, Liberia, Butterflies of the World, etc. Robert Stewart, 4364 Vision Drive, San Diego, CA 92121.

WANTED: Females Ch. paradoxa (Papilionoidea); Papilio Sarawak/Sabah, Papilio/Parides Central and South America. Write to G. ten Broek-jr P.O. Box 39, 1520AA Wormerveer, HOLLAND.

FOR SALE: Cocoons of A. luna and E. imperialis pupae. Large quantities available. EXCHANGE OR BUY: Large C. regalis pupae for other C. regalis pupae that have not been inbred. Catherine Hartman, 25903 CR 24W, Elkhart, IN 46517.

WANTED: 1) Butterflies of the World by Lewis, 2) Butterflies of the West Coast by W. G. Wright, 3) Seitz, Vol. 5 (Nearctic Rhopalocera), 4) Biologia Centrali-Americana, 3 Vols. on Rhopalocera, 5) Butterflies of the Eastern U.S. by W. H. Edwards. State price and condition. Richard Holland, 1625 Roma NE, Albuquerque, NM 87106.

WANTED TO BUY: Pupae of moths or butterflies - almost anything. Will consider ova. For photography. Stanley E. Kendall, 1945 Washington Avenue, Wilmette, IL 60091.

FOR EXCHANGE OR SALE: Large selection of Eastern N.A. butterflies. Especially good selection in hairstreaks and skippers. P. bulenta, E. berryi, S. kingi, I. henrici margarettae, I. irus arsaec, M. gryneus smilacis, M. g. sweatneri, E. laeta, S. diana, etc. Want mostly western species, common and rare, of all genera. Ronald R. Gatrell, 126 Wells Rd., Goose Creek, SC 29445.

WANTED. Sources and supply of live ova and pupae of North American Rhopalocera for museum exhibit demonstrating rearing and life cycles. Also any tropical species if available. Please send details to Jean Macfie, 1527 Bolling Ave, Norfolk, VA 23508.

FOR SALE: Butterfly/Moth/Beetle Books - Seitz, Dr. Adalbert - The Macrolepidoptera of the World, Eng. edition of Vol. 9; The Rhopalocera of the Indo-Australian Faunal Region (1908) (2 vols., - 177 colour plates plus 1197 pages of Eng. text, both red leather binding - mint) and Vol. 5, The American Rhopalocera (1924) (2 vols., 203 colour plates plus 1139 pages of Eng. text in green cloth binding (some notes written on some pages of text, otherwise very good); The Butterfly Fauna of Ceylon by L. G. D. Woodhouse, 2nd abridged edit. (1950) (includes all 37 colour plates and 12 uncoloured plates of adults, larvae and pupae plus includes hand-written notes, etc., by author, red leather binding); many more books available. SASE for list. Those listed here, cash offers (shipping extra charge) to: Q. F. Hess, 11 Esgore Drive, Toronto M5M 3P9, CANADA (phone 416/482-1637).

FOR SALE OR EXCHANGE: Wild collected cocoons of H. cecropia. James Romer, 7991 E. Hampden Circle, Denver, Colorado 80237.

WANTED: Arctiidae in exchange for lepidoptera from France. J. Nieszporek, 6.71 rue Paul Eluard, F 92230 Gennevilliers, FRANCE.

MEMBERS' COMMERCIAL NOTICES....

W. B. RICHFIELD, International Specimen Supply, P.O. Box 1066, Goleta, CA 93116, USA. Selling quality global Lepidoptera and other insects. For specimen price list subscription (12 issues), send either \$5.00 domestic fee or US \$10.00 foreign fee.

TRANSWORLD BUTTERFLY COMPANY (LS), Apartado 6951, San José, Costa Rica, C. America. Own British Delivery office, breeding projects, and extensive collectors network. Specialists in European species (over 250 including rare parnassius etc.), Morphoidea (over 45 spp) and other world specimens. If you collect, write us! Catalog costs \$1 (for postage) - please enclose cash/check. \$6 covers year's monthly Catalogs etc. The best service anywhere!

AMERICAN BIOLOGICAL SUPPLY CO. (Dr. Eugene J. Gerberg), 1330 Dillon Heights Ave., Baltimore, MD 21228, phone (301) 747-1797. North, Central and South American distributor for D'Abrera's Butterflies of South America, 256 pp, 700 illus. in full color, \$18.50. Send check now to above address to order. Also available Feb/Mar 84, Butterflies of Neotropical Region, Pt. II, \$150, and Field Companion to Butterflies of Australia and New Zealand \$15.00.

JOHN BEURIE, Route 5 Box 1021, Prescott, Arizona 86301, phone (602) 445-5037. Offering worldwide selection of Lepidoptera and Coleoptera, rare and common species available. Send \$1.00 for complete price list. Dollar refunded with first purchase.

MRS. CHANG PI-TZU, P.O. Box 873, Taipei, Taiwan, R.O.C. Selling Formosan butterflies, moths, beetles, dragonflies, cicadas, spiders and other dried insect specimens, living cocoons and ova of Saturniidae moths, rare butterflies, mosaics, aberrations of Formosan butterflies, rare female specimens of Formosan butterflies for collection and educational aids. Also available are insects and quantities of small seashells for art work and gift trade.

Q. NATURALIST ENTERPRISES, 114 Worple Road, Isleworth, Middlesex TW7 7HU ENGLAND, U. K. We wish to inform all our old clients that we have changed our address. We can offer choice specimens of Lepidoptera and Coleoptera such as C. hercules, A. mimosae, Titanus giganteus, Goliathus albosignatus and many others for sale or exchange.

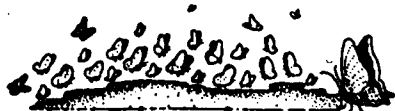
MICHAEL K. P. YEH, P.O. Box 32, Ipoh Garden, Ipoh, Malaysia. 1984 catalogue of butterflies, beetles, insects, moths, livestock & phasmida, etc., of Malaysia, Indonesia & Thailand. Send US\$5.00 in cash to cover postage. Supplementary list at US\$6.00 a year.

ENTOMOLOGICAL CLEARING HOUSE INC., P.O. Box 778, Hales Corners, WI 53130. Selling butterflies, moths, beetles and other insects. Worldwide selection with emphasis on unusual and uncommon material for the specialist collector. If you have a collection or accumulation of material that you wish to dispose of, ECH can arrange to purchase your material, accept it on consignment, or trade other items for it. This service will allow you to turn unwanted material into cash or items of greater interest, while at the same time allowing ECH to give someone else the opportunity to obtain these species. Free price list sent on request.

DAVE E. DE ROSA, P.O. Box 15432, San Diego, California 92115, U.S.A. For sale: Morpho violacea ♂, adonis, aega, amathonte, helenia, phanodemus, amphitryon, cacica, hecuba ♂, telemachus ♂, erica, polyphemus ♂, sulkowski, etc. Prepona praeneste, omphale, Agrias narcissus ♂, trajanus ♂, beata, claudina ♂, aristoxenus, etc., and other genera. Price list is free, send SASE 40¢.

CHRISTOPHER J. FARRELL, Apartado #360, Buga Valle, Colombia, South America. Offering, large variety of Colombian, Brazilian and Peruvian Coleoptera, Lepidoptera and other insects, Bird-Eating Spiders, Scorpions, etc. We now have on special offer: Agrias aedon narcissus/narcissus christinae pairs and Cithaerias esmeralda ♂'s and ♀'s. Also available, Lepidoptera, including rarer Papilionidae, from Indonesia. Please write, if possible stating interests, for full details and prices.

ADAM M. COTTON, 38/1 Soi Saeng Chan, Sukhumvit 40, Bangkok 10110, Thailand. Selling papered butterflies, moths, beetles and other insects of Thailand; also boxes of Indonesian butterflies. All Thailand butterflies with data, best A1 quality and A1B rarer species. Even small Lycaenidae and Hesperidae offered. Selling wholesale (large discounts) or retail. No minimum order size. Live scorpions, tarantulas, etc. also available. All prices very low. Write for free price list. Also FOR EXCHANGE, Butterflies, moths, beetles, etc. of Thailand for world Papilionidae species with data (A1 or A1B). Send offertia list.



Forthcoming Meetings

ANNUAL MEETING: July 5 to 8, 1984
FAIRVIEW, ALBERTA, CANADA

LAST CALL FOR PAPERS

Deadline for submitting Titles and Abstracts is APRIL 1, 1984. Notification of acceptance will be mailed by April 30, 1984. See NEWS #1, 1984, pg 7.

ACCOMMODATIONS AND MEALS

DORMITORY FACILITIES:

The college can make available the regular student dormitories, which are quite luxurious for dormitories. They are only 2 years old. There are also some apartment suites that can be had, which have cooking facilities. The latter are more costly. If you are interested in one of these, please contact Ted Pike independently (phone 403/835-5381).

RESIDENCE ON CAMPUS: \$10.50 per night.

MEALS ON CAMPUS: \$11.50 per day; includes breakfast, lunch and dinner, and coffee.

BANQUET: \$9.00 if you are not planning on buying a meal ticket on campus; \$4.00 if you are buying a meal ticket.

The director of the college kitchen has indicated that he would prefer as many people as possible buying meal tickets, since he has to place extra staff anyway.

HOTELS AND MOTELS:

Dunvegan Motor Inn (403) 835-5100

Rates: single; \$34.00
double; \$39.00

Comfort Inn (403) 835-4921

Rates: single; \$25.00
double; \$30.00

Midtowner Motel (403) 835-2282

Rates: single; \$28.00
double; \$34.00

The Dunvegan Motor Inn, and the Comfort Inn are across the street from the college. The Midtowner is in the center of town, about ½ mile from the college. Reservations for these accommodations should be made directly to the motel desired.

CAMPING:

There is a free public campground at the north end of town, about 1 mile from campus.

To register for the meeting, please fill out the accompanying form and send a postal money order in Canadian funds to: Ted Pike, Box 1231, Fairview, Alberta T0H-1L0, Canada. All prices quoted are in Canadian dollars.

REGISTRATION FORM

Registration fee: \$20.00

College dormitory: \$10.50/night X ___ nights

Meal ticket: \$11.50/day X ___ days

Banquet: \$9.00/plate (no meal ticket)

\$4.00/plate (with meal ticket)

TOTAL

Name(s)

Address

Phone

MICROLEPIDOPTERA WORKSHOP:

Registration should be sent to Jean-Francois Landry, Dept. of Entomology, University of Alberta, Edmonton, Alberta T6G 2E3, Canada. The fee is \$25.00 Canadian and you will receive expert instruction, fine curved forceps, two pinning boards, and appropriate pins.

1984 ANNUAL MEETING DOOR PRIZES

Please note! Anyone who wishes to donate a door prize for the drawing at the Annual Meeting in Fairview, Alberta, July 5-8, please contact Charlie Covell, Dept. of Biology, Univ. of Louisville, Louisville, KY 40292, USA. Prizes may be sent or brought to the meeting. Thank you! C.V.C.



31st ANNUAL PACIFIC SLOPE MEETING OF THE LEPIDOPTERISTS' SOCIETY JUNE 2 & 3, 1984

To be held at the University of California forestry field station near Meadow Valley, Plumas County, CA. The Program plans include a workshop on techniques useful in the study of lepidopterology, e.g., preparing genitalic dissections, scientific illustration, spreading microlepidoptera, and rearing lepidoptera.

The camp is located in a topographically diverse and floristically rich area with Sierran, Great Basin, and Cascade elements. In addition, the June dates and elevational diversity should enhance local collecting.

FIRST CALL FOR PAPERS

Papers are solicited on any aspect of lepidopterology. Please submit titles, author's name, reader's name, addresses, and abstract, not to exceed 100 words, to the program chair: David Wagner, Dept. of Entomology, 218 Wellman Hall, Berkeley, CA 94720.

Presentation papers will be limited to twenty minutes unless otherwise requested. Student papers will be eligible for the Comstock Award Competition. Submission deadline is 15 April, 1984. Pre-registration packets will be mailed in late February to all western states members.

from: The Lepidopterists' Society

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DEADLINES: Material for the Jan/Feb issue should reach the NEWS EDITOR by Dec. 1 of the previous year, and that for the Mar/Apr issue by Feb 15, for the May/June issue by Apr 1 and for the July/Aug issue by May 1, the Sept/Oct issue by Aug 15 and the Nov/Dec issue by Oct 15. Reports for the SEASON SUMMARY must reach the ZONE COORDINATORS listed on the front cover no later than the 15th of January. NEWS EDITOR is June Preston, 832 Sunset Dr, Lawrence, KS 66044, USA. RIPPLES EDITOR is Jo Brewer, 257 Common St, Dedham, MA 02026, 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, Eric Metzler, 1241 Kildale Square North, Columbus, OH 43229, USA, the full dues for the current year (\$18.00 US), together with mailing address and a note about areas of interest in the Lepidoptera; student membership (must be certified) \$12; sustaining membership \$25; life membership \$250. Remittances must be in US dollars, payable to the Lepidopterists' Society. All members will receive the JOURNAL (published quarterly) and the NEWS (published bimonthly). A biennial membership directory will comprise the last issue of the NEWS in even-numbered years.

Information on membership and other aspects of the Society must be obtained from the SECRETARY, Julian P. Donahue, Natural History Museum of Los Angeles County, 900 Exposition Blvd., Los Angeles, CA 90007, USA. Please notify him of any additions or changes in areas of interest for publication in the membership directory.

Changes of address must be sent to the ASSISTANT TREASURER, Ron Leuschner, 1900 John St, Manhattan Beach, CA 90266, USA, and only when the changes are permanent or long-term.

Manuscripts submitted for publication in the JOURNAL are to be sent to Dr. Thomas D. Eichlin, EDITOR, JOURNAL of the Lepidopterists' Society, Insect Taxonomy Laboratory, 1220 "N" Street, Sacramento, CA 95814, USA. See the inside back cover of a recent issue of the JOURNAL for editorial policies.

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

CATALOGUE/CHECKLIST OF THE BUTTERFLIES OF AMERICA NORTH OF MEXICO (Memoir No. 2), Lee D. Miller & F. Martin Brown: includes references to original descriptions and location of type specimens. Members and subscribers, \$10 cloth, \$5 paper; non-members, \$17 cloth, \$8.50 paper, postpaid.

COMMEMORATIVE VOLUME, 1947-1972: a 25-year review of the Society's organization, personnel, and activities; biographical sketches; JOURNAL 25-year cumulative index by author, subject, and taxon; clothbound. Members and subscribers, \$6; non-members, \$10, postpaid.

1982 MEMBERSHIP DIRECTORY (current to April 1983). Biennial directory of members and their addresses, with geographic and interest indices. Not available for commercial use. (NEWS #6 for 1982). \$5.00 postpaid.

BACK ISSUES of the JOURNAL and of the NEWS of the Lepidopterists' Society. A list of the available issues and their cost, postpaid, is in the NEWS for Mar/Apr 1984, page 39.