

NEWS

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Editorial Committee of the NEWS

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1971 Field Season Summary

Here is the summary of last year's collecting, in time, I hope, to aid you with your collecting plans for 1972. It is varied in coverage and detail, reflecting the reporting differences among contributors and coordinators.

The purpose of this Summary is, as I understand it, to give our members an opportunity to report collecting conditions and productive localities, along with interesting occurrences or lack of familiar species, in the areas they have covered. It is not meant to be the vehicle of publication for "permanent record" of important faunistic data, although many state records and life history notes appear informally here. There is, however, a tendency of faunal students to cite records in past Summaries. Thus the Summary is, in reality, somewhat more than it was originally intended to be. We try to include something from each contributor, and encourage all who wish to send in brief reports to be included.

The 1971 season appears to have been average to somewhat below average in North America, with cold winter, spring and summer in much of the West, combined with drought in the summer. Much of the Midwest and East experienced an early but dry spring, about average summer conditions, and an unusually warm fall, with Lepidoptera flying well into December in many areas. While some species were scarce or absent where expected, this was a year of a N. californica outbreak in California, a P. dispar (Gypsy Moth) scourge in the Northeast, and an unusual abundance of early summer hairstreaks in the East and eastern Midwest. Mexico



and Central America seems to have plagued collectors there with drought; we have no useful information regarding our new Zone 10 - South America.

Trends I note in the reports include the frustration of many of us in seeing familiar collecting sites ruined through development and pollution, and the growing interest among some of us in moths. State faunal lists continue to grow in number of species, especially of moths; and almost every state or province has such a study in progress.

I wish to thank all the Coordinators and Contributors for their participation and hard work, and particularly E. J. Newcomer, who is resigning this year as Zone 2 Coordinator. Have a successful year.

C. V. Covell, Jr. Editor ZONE 1: ARIZONA, NEVADA, CALIFORNIA. Coordinator: R.L. Langston (L). Contributors: G. Balogh (B), J.F. Emmel (E), K. C. Hansen (Ha), C. Henne (He), J. R. Mori (M), R. L. Scharf (Sf), J. A. Scott (Sc), O. Shields (Sh), M. J. Smith (Sm), D. H. Sorg (So), W. L. Swisher (Sw), F. T. Thorne (T), M. D. Van Buskirk (V), B. Walsh (Wa) and R. E. Wells (We).

COUNTY, STATE (in caps.) = New records for county and/or state. NORTH, SOUTH, etc. = Northerly, southerly, etc. range extensions. Common, abundant - - Stated when usually scarce at locality or rare in general.

<u>ARIZONA</u>: The only two reports included moths. Butterfly contributions were by non-residents on brief visits. Not a single skipper mentioned!!

MIGRATORY SPECIES: Mass flight of <u>Herse cingulata</u> to lights in city of Tucson, 11-16 Oct. (Ha). <u>Libytheana bachmanii</u>, Madera Canyon, S. Cruz Co., 6-11 Sept. (Sf) -- its usual haunt. Only report. (Many records 1970, migrations, ARIZ. Aug., Sept., CALIF. Oct., Nov. 1970.)

MOTHS: Sagenosoma elsa, 18 mi. SSW of Willcox, 5, 11 Aug., & Portal, Cochise Co., 13 Aug. (V). Sphinx chisoya, Guadalupe Canyon, 30 mi. E. of Douglas, Cochise COUNTY & STATE, 27 Aug., 1 Q (V). Proserpinus terlooti, Nogales, S. Cruz Co., 14 July (V). Eacles imperialis oslari, Pena Blanca Lake, S. Cruz Co., 24 July (Ha). Adelocephala heiligbrodti, Automeris pamina, Coloradia chiricahua, Catocala grotiana & Erebus odora, Cave Cr. Can., 5400', 5 mi. W. of Portal, 12 June-16 Sept. (V).

BUTTERFLIES: Eurema proterpia, Sycamore Canyon E. of Ruby, S. Cruz Co., 8 Sept. (Sm) and Madera Canyon, 6-11 Sept. with E. dina westwoodi (Sf). Callophrys siva, Desert View, Coconino Co., 3 July (B). C. xami, Peppersauce Canyon, Catalina Mts., Pinal Co., 18 Mar. (M). Erora quaderna, Kitt Peak, Quinlan Mtns., Pima Co., 29 Mar. (We). Callophrys apama, North Rim, Grand Canyon, Coconino Co., 1 July (B). Asterocampa celtis montis, Arivaca, Pima Co. & Oro Blanco, S. Cruz Co., 8 Sept. (Sm) and Madera Canyon, 6-11 Sept. with A. subpallida, abundant, and Anthanassa texana (Sf). Euptychia henshawi, Madera Canyon, 9 Sept. (Sm). Gyrocheilus patrobas tritonia, unusually common, Upper Madera Canyon, 6-11 Sept. (Sf).

LIFE HISTORIES: Manduca rustica larvae on trumpet-vine, Tucson, 4 Oct. and on ash, Sabino Cyn., Pima Co., 24 Sept. Sphinx chersis larvae abundant on ash, Sabino Canyon, Sept. Telea polyphemus oculea larvae on oak, and Eacles imperialis oslari larvae abundant on oak & "wild nut trees," Sonoita Cr., S. Cruz Co., 4 Sept. Limenitis astyanax arizonensis, 63 hibernacula on 1 cottonwood, Lower Madera Canyon, Jan. (all Ha). L. archippus obsoleta larvae on Salix, adults, Arivaca, Pima Co., 8 Sept. (Sm). Thessalia fulvia & T. theona thekla diapausing larvae on Castilleja, Peppersauce Canyon, Pinal Co., 12 May and thekla on Castilleja, nr. Box Canyon, S. Cruz Co., larvae 3 Sept. reared to adults. Euphydryas chalcedona hermosa dispausing larvae abundant on Pentstemon, Peppersauce Canyon, 12 May (all Ha).

NEVADA: All reports from Californians. No mention of migratory species or Heterocera.

BUTTERFLIES: Papilio bairdii brucei, Austin Summit, Lander Co., 20 June (Sc). Anthocaris cethura morrisoni, sand dunes 2 mi. W. of Fallon (We) and hilltopping 10 mi. W. of Fallon, Churchill Co., 20 June (Sh, We). Callophrys fotis, Potasi Mt. Rd., 1 mi. E. of Mt. Springs Summit, Clark Co., 6, 8 Apr., 34 total (We). Callophrys affinis & Philotes enoptes ancilla, Austin Summit, 20 June (Sc). Oeneis chryxus, above Stella Lake, 11,000', Mt. Wheeler, White Pine Co., 12 July (M).

<u>CALIFORNIA</u>: Very early spring flights of many species. Summer species at the higher elevations were also early. Several unusual autumn records.

MIGRATORY SPECIES: Nymphalis californica, Tejon Mts. & Greenhorn Mts., Kern Co., 19 July, very abundant (Sf).

N. californica, great numbers, generally flying SW., Mt. Shasta region, incl. Burney to Mt. Lassen, Mt. Shasta City, etc., 14-15

Aug. (L. Clark, R. C. Gardner, S. O. Mattoon, M. McWilliams, Sh, We). [see NEWS, no. 6, 15 Nov. -- erroneous species in Newspapers, none of which in area.] N. californica, San Bruno Mts., 3 Oct. (E), and Berkeley Hills, 3 Oct., NE. flight away from sun, late aft. (L), also San Francisco, 12 Oct., NE. flight (L).

MOTHS: Scepsis packardii & Platyprepia guttata, Bodega Head, Sonoma Co., 17 July (L). Apantesis ornata f. achaia and Leptarctia californiae, nr. San Andreas, Calaveras Co., 10 Mar. (So). Heliophana (Schinia) amaryllis Q, Butts Canyon Rd., SE. of Middletown, Lake COUNTY & NORTH, 9 Apr. (He). (Type from Colton and 4 specimens known from La Jolla, both in So. Calif.)

BUTTERFLIES: Panoquina errans, mouth of Ventura R., Ventura Co., 30 Aug. (L). Pyrgus scriptura, Lakeside, San Diego Co., 28 July, 20 Sept., SOUTHWEST (T). Papilio bairdii rudkini, nr. Salton View, Joshua Tree N. M., Riverside Co., 20 Mar. (Sf). P. indra, 10 mi. NE. Weed, Siskiyou Co., 1 July, NORTH for Zone 1 (M). Euchloe hyantis, Fordyce Cr., 5600', Nevada Co., 6 June (L). Calephelis nemesis, Solana Beach, S.D. Co., 1 Sept. (L). Atlides halesus, SW. & SE. of Auburn, Placer Co., 3-4 Nov., (7 total), LATE (We) and Shingle Sprs., Eldorado Co., 22 Oct.- 1 Nov. (27 total), LATE (We). (Note late dates for abundance). Callophrys johnsoni sympatric with C. spinetorum, Hwy. 4 at Hermit Sprs. Rd., 6500', High elev., Calaveras Co., 25 June (M). C. spinetorum, fresh Q, Shingle Sprs., 22 Oct. LATE (We). C. siva juniperaria, 3 mi. S. Bodfish, Kern Co., NORTH, 15 May (M). Lycaena arota, Jasper Ridge, S. Clara Co., 20 Mar., EARLY & locally common (So). L. phlaeas hypophlaeas, S. of Sonora Pass, 10,600', Mono Co., 7, 17, 21 Aug. (M). Brephidium exilis, Shingle Sprs., Eldorado COUNTY, 22 Oct., 1 Nov. LATE (We). Plebejus neurona, 1 mi. W. Bodfish, Kern Co., 15 May (M) and nr. Mt. Pinos, Kern Co., 19 July (Sf). Philotes sonorensis, 7 mi. NE. Placerville, Eldorado Co., 7 Feb. EARLY for north (L) and Soda Sprs. Cr., Coe Park, S. Clara Co., 20-21 Mar., new colony (L). Glaucopsyche piasus, South Lake Rd., SW. of Bishop, Inyo Co., 26 June, common (Sm). G. p. sagittigera, Crouch Mdw. Spring, 5000', Laguna Mts., S.D. Co., 16 May, 9 June (T). Nymphalis milberti furcillata, nr. Mt. Pinos, 19 July (Sf). Polygonia faunus rusticus, Chicken Hawk Spr. W. of Kyburz, Eldorado Co., 6 June, 11 July (We). Chlosyne acastus, Salton View, Joshua Tree N.M., 20 Mar. (Sf). Thessalia leanira mixed population, 60% leanira, 30% wrightii, 10% cerrita of 60 coll., Bodfish Summit, Kern Co., 15 May (M). T. leanira, 10 mi. NE. Weed, Siskiyou Co., 1 July (M). Dymasia chara imperialis, 2 mi. NE. Lakeside, S.D. Co., 9 Feb., EARLIEST in 40 yrs, (T). Euphydryas editha, Escondido Campground area, Santa Lucia Range, Monterey COUNTY & NORTH, 16 June (Sw). E. e. wrighti, 1 mi. S. Spring Valley, S.D. Co., 2 Feb., EARLIEST in 40 yrs. (T). E. e. nr. aurilacus, Chicken Hawk Spr., W. of Kyburz, 6 June (Sh). E. e. baroni, Butts Canyon, N. of Aetna Sprs., Napa Co., 9 May (L). Speyeria coronis hennei, nr. Mt. Pinos, 19 July (Sf). S. egleis clemencei, 10 mi. NW. Jolon & Escondido Campground, Monterey Co., 16 June (Sw). Agraulis vanillae incarnata, Cupertino, S. Clara Co., Aug. to

Oct., common (So). Cercyonis silvestris, Nortonville, C. Costa Co., 22 Aug. (E, L) and Forest Hill area, Marin Co., common, Sept.-Oct., LATE (So). Oeneis chryxus (stanislaus, ivallda, & intermediates), Carson Spur, 8400', Amador Co., 8 July (M), and ivallda, Minaret Summit, 9300', Mono Co., 28 June (Sm).

LIFE HISTORIES: Hemileuca electra larvae on Eriogonum fasciculatum foliolosum, 1970, S. of Perris, Riverside Co., adults Oct. 1971 (He). H. e. clio larvae on E. f. polifolium, Acton & Pearblossom areas, L. A. Co. (He) and on polifolium E. of Lucerne Valley, S. Bdno. Co. 20 Mar. (Sm) and 5 inst. larva, polifolium, Red Rock Canyon, Kern Co., 11 Apr. (Sm). Pseudohazis eglanterina, last instar larvae on Ceanothus thrysiflorus, Bixby Cr., Hwy. 1, Monterey COUNTY & SOUTH for coast, 17 July (Wa). Lerodea eufala ovipositing on Medicago sativa, alfalfal! Hanford, Kings Co., 19 July (Wa). Papilio multicaudata, 3-5 inst. larvae on Ptelea baldwinii, hop tree, Kirker Cr. S. of Nortonville, C. Costa Co., 22 Aug. (E, L). Pieris napi venosa ova, larvae common on Arabis glabra, few on Dentaria californica, Carmel Valley, Monterey Co., 20 Feb. (Wa). Apodemia mormo deserti mature larvae, inflated stems of Eriogonum inflatum, Sentenac Canyon, S.D. Co., 25 Sept. (T), pupation, adults by 4 Oct. Callophrys fotis windi on Sedum obtusatum, Fordyce Cr., 5700', Nevada COUNTY, adults 5 June (L), ova, small larvae 19 June (E). Thessalia leanira cerrita 3 inst. larvae on Castilleja, SW. of Topaz Lake, Mono Co., 29 June (Sm). Euphydryas editha, NW. of Lompoc, S. Barbara Co., Plantago erecta & Collinsia bicolor (egg mass), adults 20 Mar. (Sw), also White Rock Canyon, 3000', San Rafael Mts., S. Barb. Co., 13 May, and summit, Black Mtn., 3625', La Panza Range, S.L.O. Co., 11 June, late-flying adults assoc./w Pedicularis densiflora, Indian Warrior (Sw).

ZONE 2: PACIFIC NORTHWEST: BRITISH COLUMBIA, WASHINGTON, OREGON, IDAHO, MONTANA.

<u>Coordinator</u>: E. J. Newcomer. <u>Contributors</u>: B., C., H., and W. Durden, C. Ferris, E. Gage, J. Graf, S. Kohler, and E. J. Newcomer.

BRITISH COLUMBIA: Ferris took Oeneis chryxus at mile 78, Haines Highway (NW of Haines, AK); no date given; Oe. jutta, macounii, and C. augustinus, mile 211, Alaska Highway, June 18; B. freija nabokovi, mile 394 (Summit Lake), Alaska Highway, June 19; and S. atlantis ssp., 8 miles west of New Hazleton (Highway 16), Aug. 8.

<u>WASHINGTON</u>: Gage took <u>C. palaemon</u>, Saulk Rec. Campground, Blewett Pass Highway, Kittitas Co., June 19; <u>B. selene, C. nelsoni</u>, and <u>C. palaemon</u> (numerous), Ione, Pend Oreille Co., June 24. He found <u>P. oregonius</u> scarce at Priest Rapids, Yakima Co., Sept. 4; but Newcomer found larvae fairly common there Sept. 24, feeding on <u>Artemesia dracunculus</u>. Gage also took one <u>Limenitis archippus</u> X <u>lorquini</u> hybrid near Richland, Benton Co., Sept. 4. Graf took 1 male <u>Cynthia</u> (formerly <u>Vanessa</u>) <u>virginiensis</u>, near Satus Pass Ski Lodge, Klickitat Co., Aug. 8 - the second reported from central Wash. in more than 10 years.

MONTANA: Kohler reported the following, all from Missoula Co. unless otherwise noted: A. sara julia, Apr. and May, and MacDonald Pass, Powell Co., June 16; P. beckeri, Apr. & May; C. alexandra, Pattee Canyon, June 24; C. spinetorum, Mormon Peak, June 25; C. eryphon, Apr. - June, MacDonald Pass, Powell Co., June 16; C. iroides and polios, Apr. and May; H. titus, S. fuliginosum, S. egleis albrighti, and N. ridingsii, Crazy Mts., Sweet Grass Co., July 23; L. snowi, Gallatin Canyon, Gallatin Co., July 22; P. piasus, May 27, and Gallatin Canyon, Gallatin Co., June 16; L. lorquini burrisonii, June, and near Lincoln, Lewis and Clark Co., July 21; E. chalcedona, May and June; B. kriemhild, Gallatin Canyon, Gallatin Co., June 16; B. epithore, Miller Cr., June; E. epipsodea, May and June; C. meadii, C. damoetas, B. eunomia, Oe. melissa, E. magdalena, theano, and callias, near Beartooth Pass, Carbon Co., July 22. The Durdens took P. f. rusticus, N. antiopa, P. zephyrus, C. argiolus pseudargiolus, A. sara, C. eryphon, G. lygdamus, P. satyrus, C. polios, and C. sheridanii, late May, East Rosebud Lake, Carbon Co., P. ruralis, Oe. uhleri, L. cupreus, and P. piasus, early June; C. haydenii (not seen here before) June 17-22; P. silenus, June 20 - July 20; C. nycteis, 5300 ft., June 21 (first Montana record?); E. clarus, June 21; Papilios and 6 spp. of Speyeria, June; C. palaemon, July 3; L. rubidus, C. meadii, D. plexippus, and C. caryae, Aug. 11, all new Carbon Co. records; C. phocus, Bear Cr., desert, Aug. 19; L. nivalis, phlaeas, L. argyrognomon (at tree line), C. damoetas (on glacier), Aug. 24, Snow Lake, E. Rosebud Canyon; C. alexandra, christina, L. dion, helloides, L. argyrognomon, and Hesperia manitoba (?), near Benbow Mine, Stillwater Co., Aug. 31.

OREGON AND IDAHO: No report.

ZONE 3: ALBERTA, WYOMING, UTAH, COLORADO AND NEW MEXICO. Coordinator: J. Donald Eff. Contributors: G. Balogh, J. Belicek, C. J. & M. V. Durden, C. D. Ferris, M. Fisher, J. Legge, J. R. Mori, D. Parshall, D. E. Pforr, J. Scott, G. Shier, K. Tidwell and M. Toliver.

NOTE: I would like to take this opportunity to thank Cliff Ferris for assuming the responsibility for preparation of the report for this Zone last year. It was unfortunate that the final published result failed to reflect the complete, excellent report he worked so diligently to prepare in my first absence from this task.

Weather in this mountainous area is always subject to great diversity; but in general it appears that there was a good snow-pack, sufficient moisture for a good spring beginning, then a wet, cold period followed by a dry, hot spell beginning about mid-July.

<u>ALBERTA:</u> Cold and wet June weather seems to have retarded the appearance of many Alberta species. In the butterflies <u>Papilio</u> <u>nitra</u> was absent, and <u>Boloria</u> <u>titania</u> which Pforr found swarming in 1970 was nearly absent. Legge notes an increase in <u>Erebia discoidalis</u>.

MOTHS: Pforr makes the following observations: in the Noctuidae, Parastichtus disciveria, Hypoceana inquinata and others that normally fly in early July were absent in July and August. The Arctiid Hyphoraia parthenos was in very low numbers. More plentiful than usual were Proserpinus flavofasciata. Always uncommon, 3 - 4 dozen were taken in late May. Also Smerinthus jamaicensis was much more abundant than last year. All of the above data from the George Lake Field Site NW of Edmonton. Belicek reports an outbreak of Barathra (=Mamestra) configurata in Aug. with the larvae destroying the grape crop in some places, particularly the eastern and northeastern sections. There were many complaints about the damage done by Hemerocampa leucostigma to garden shrubs.

RANGE EXTENSIONS: Yucca glauca and Tegeticula alba, while rare, have now been reported between 49° 00′ and 49° 47′ north latitude and 110° and 111° west longitude (Belicek). In the Saturniidae, specimens of Hyalophora columbia nokomis were taken in the Peace River-Lesser Slave Lake area, a 250-300 mile range extension to the north and east (Pforr). Ferris reports what may be a western extension with the capture of Euchloe ausonides mayi, SE of Dawson Creek, B.C. in Alta, on June 18.

<u>UTAH</u>: Ken Tidwell, the only resident collector reporting, noted rainy weather in May and June that hampered collecting. He reports that it was not a productive summer, but wonders if he just may have been in the wrong place at the wrong time. Scott reports <u>Hesperia pahaska</u> at Summit 7910 in Iron Co. on June 21, plus the capture of 2 specimens of <u>Papilio bairdii bairdii</u>. Mori also notes the presence of numerous <u>P. bairdii bairdii</u> in So. Willow Canyon in the Stansbury Mts. (Tooele Co.) in late July. I cannot recall reports of these being found previously in this area. Eff and Detmar made a late Aug. trip for <u>Speyeria nokomis</u>. At Merkley Park in Uintah Co. we were horrified to find the habitat mowed and in hay. However, <u>nokomis</u> was about in fair numbers in the border areas in spite of the change that has occurred in its habitat during the last 9 years. We also found <u>nokomis</u> in good numbers and not so badly worn in Duschesne Co.

<u>COLORADO</u>: The Front Range and eastern Colo. experienced snows in Apr., rains in late Apr. thru May and early June, followed by almost complete lack of moisture (except mountain showers) until Labor Day. This dry period coupled with high temperatures left the vegetation burned to a crisp. Even the alpine areas were dry, but collecting was not as adversely affected as in the lower areas. Some mountain areas even afforded excellent collecting.

STATE RECORD: <u>C.</u> iroides annetteae, Canyons WSW of Cortez, Montezuma Co., 6300-6500', April 10-12, reported by Fisher.

CHOICE SPECIES, EXTENSIONS OF RANGE & RELATIVE ABUNDANCE. Callophrys affinis affinis, June 21, nr. Hartsell (Park Co.). This is 50 airline miles east of previous captures near Aspen, Colo. and about the same distance south of Eff's record from Tabernash. Collected by Durden. Callophrys apama apama, July 26, Fawn Gulch, Archuleta Co. Only about 5 previous records of this, and none since 1953. Collector-Parshall. Papilio nitra, May 31, NW Marina, Horsetooth Reservoir, and above Soldier Canyon, June 1. Both records in Larimer Co. by Fisher. Both were fresh specimens and represent the first time this butterfly has been taken north of the Boulder area. Papilio bairdii nr. hollandi, July 6, Red Rocks Park, Jefferson Co. by Scott. This is about 90 airline miles north of previous records from Fremont Co., and from where Fisher notes that bairdii, and forms brucei and hollandi were scarce this year. Libytheana bachmanii, Sept. 1 & 2, vic. Golden, Jefferson Co. Shier took 8 specimens on Rabbitbrush, and Scott reports that Mike Young of Lakewood also took specimens at Golden. This butterfly rarely seen north of Arkansas River in the SE part of the state, Fisher also recorded it from Rush in Lincoln Co. which is also a little north of previous recorded captures. Phoebis agarithe, Sept. 1 & 13, Lakewood area, Jefferson Co. An unusual stray taken by both Scott and Young. Erynnis zarucco, Aug. 31, Green Mt., Jefferson Co., by Scott. A Texas skipper only twice before recorded from Colorado. Junonial coenia, Sept. 13, Wetmore, Custer Co. by Scott. Records of this butterfly are few and the last known was when my son took several specimens on Chautauqua Mesa in Boulder in Oct. 1957. Callophrys sheridanii, July 20, Walton Peak, Routt Co. Collected by Mori at an altitude of 10,200 ft. Extremely high altitude for this insect and from a portion of the state where it has been missing. Hesperia pahaska pahaska, June 13-27, vic. of Parker, Douglas Co. (Fisher). Common this year. Hesperia uncas, Aug. 1, NW of Del Norte, Rio Grande Co. (Fisher) Species thick on horsemint (Monarda) blossoms. Hesperia ottoe, vic. Parker, Douglas Co. Reported as unusually abundant by Fisher and by Scott at other localities. Polites coras, noted as very abundant by Scott who reports that it has increased its range around Denver in the last few years and now apparently flies from April to Sept. Apodemia mormo, Aug. common in vicinity of Colorado Springs around Fountain (Scott) and east of there (Fisher). Lycaena editha montana, July 18 & 24, Farger Area, Grand Co. This has been reported a number of times from Routt Co. but not, to the best of my knowledge from Grand Co. which is the next easterly County. Parshall's "Farger Area" is unknown to me, Parshall collected extensively in Colo, between July 9 and August 1. His list of records fails to reflect any indication of numbers, but cover 24 of the 62 counties, including nearly all of the western ones. His report lists most of the endemics and several records would be of more than passing interest if it were not for the nagging suspicion that some identifications are more the result of "wishful thinking" than accurate determination. To illustrate the possible pitfalls, he records Speyeria cybele carpenteri from Archuleta and La Plata counties (undoubtedly correct), but both carpenteri and charlottii from Ouray and San Miguel counties. This is possible since this is nearing what is regarded as the transition area and is something on which detailed records, observations and intensive collecting is needed. His records of charlottii from Garfield and Moffat counties would seem to be accurate but carpenteri (?) from Routt Co. is unlikely and from Boulder Co. is certainly questionable! Among recorded items of interest are Lycaena nivalis browni, Speyeria egleis secreta and Chlosyne palla flavula from Rabbit Ears Pass in Routt Co.; Erebia magdalena, Oeneis polixenes brucei and melissa lucilla, July 20, all from Berthoud Pass in Clear Creek Co.; Callophrys spinetorum, June 22, Gold Camp Rd. (El Paso Co.); Polygonia hylas and Satyrium sylvinus, July 28, Junction Creek (La Plata Co.); and Strymon acadica montanensis, July 10, So. Platte River, nr. Sterling (Logan Co.).

The Durdens collected in Park Co. for 25 days starting June 14, and recorded some 248 specimens of 36 subspecies, including the endemic <u>Bolorias</u>. They made one trip on June 20th, to Hideaway Park in Grand Co. and found <u>Callophrys spinetorum</u>. <u>Oeneis jutta reducta</u>, which apparently was the main objective, was missing. Enroute back to Texas from Montana on Aug. 8 they found <u>Parnassius smintheus</u>, <u>Erebia callias</u> and <u>Plebejus aquilo</u> in full flight on Independence Pass.

Fisher had excellent collecting on July 17 on Loveland Pass, taking 101 specimens, mostly in fresh condition of such eagerly sought species as Erebia magdalena, Qeneis p. bruce and m. lucilla, Lycaena snowi, Chlosyne damoetas and Erebia epipsodea form bruce. Mike, in addition to his new state record of C. iroides annetteae in the SW corner of the state also took C. spine-torum and siva, A. halesus, <a href="C. fotis, <a href="Anthocharis sara inghami, Erynnis telemachus and Iucillus and Megathymus coloradensis navajo. Euchloe hyantis lotta was abundant. An added note of interest for this area was a PS on the Christmas card from David Bauer saying he had a new record for Colo. namely Phyciodes mylitta. This is representative of the Arizona population. A few final items of interest include Polites sonora utahensis, Aug. Aug. 7, Hall Valley (Park Co.) at 9600 ft. by Fisher, Hesperia juba, July 2, nr. Deckers (Douglas Co.) and Atrytone arogos and S. calanus godarti at Red Rocks Park (Jefferson Co.) collected by Scott.

Fisher took <u>Philotes rita coloradenis</u> Aug. 21,2 mi. E of Rush in Lincoln Co. but Eff found it entirely absent once again from Kuntz Gulch nr. Cotapoxi in Fremont Co. Fisher reports that a housing development on Cheyenne Mt. in Colorado Springs has nearly ruined the collecting for such things as <u>Euptychia dorothea</u>, <u>Hypaurotis crysalus</u> and <u>S. f. godarti</u>. Mountain home subdivisions along Hwy. 40 west of Tabernash also threatens the Middle Park colony of <u>Qeneis g. oslari</u>.

WYOMING: The Wyoming weather had a much greater impact on insect life and collecting conditions than in neighboring states. Snow arrived very early in the winter and heavier-than-average snowfall occurred in many areas of the state with the Snowy Range of south-central Wyoming living up to its name with a total of approximately 200% of normal. Spring was cold and wet statewide. Normal summer temperatures did not begin until July in many portions of the state and especially in the southeastern region. As a result the season was late to varying degrees and few of the early species were even seen because of the cold, wet weather. Higher altitude species normally appear by July 15th, but such things as Boloria eunomia laddi, Colias scudderii and Euphydryas editha were not seen until the second week of Aug. Many of the roads in the high country in the Snowy Range were still blocked by snow in mid-Aug. And then to top it all, fall came early with a heavy snow and cold weather in mid-Sept. There were no exceptional records for the state. The usual endemics were found in mid-summer. Balogh found Neominois ridingsii very common at Cheyenne on June 26. Ferris found Philotes rita at several locations east of Laramie, but in small numbers. This insect was first found near Laramie in 1968, but erroneously determined as enoptes. States, is now approventy early in one founder land heavier than average sniow annoccurried in many are as of the istate With une Snowy Range of south-central Wyoming living up to its name with a total of approximately 200% of normal. Spring was cold and wet statewide. Normal summer temperatures did not begin until July in many portions of the state and especially in the southeastern region. As a result the season was late to varying degrees and few of the early species were even seen because of the cold, wet weather. 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Colorado-New Mexico border, but so far no captures of <u>mcfarlandi</u> there, or in Colo. I understand that the type locality of this plant is NW of Walsenburg, Colo., and have seen the plants there. <u>Euristrymon ontario</u> <u>violae</u>, absent this year from the area where <u>Speyeria</u> <u>edwardsii</u> was recorded, and from which it was first reported last year.

Some of the most interesting reading in reports received relates to new and out-of-the-way localities. Union Co. was collected rather extensively for the first time and produced not only a new state record but many things of interest. Toliver found Speyeria aphrodite ethne common there on thistle. Also found were several specimens of Amblyscirtes simius, oslari and phylace. Durden noted the meadows in bloom and Phyciodes campestris, Callophrys apama (homoperplexa?) and others. Ferris mentions several Grant Co. species of interest: Erora quaderna, Chlosyne gabbii sabino, Callophrys augustinus and Stinga morrisoni. The Durdens note capture of 113 specimens, 37 subspecies taken in 5 days. Guadalupe Mts. (Eddy Co.) dry in May, but some interesting collecting at Sierra Blanca in Lincoln Co. in July for such things as Speyeria dorothea, Papilio polyxenes, Limenitis weidemeyerii, Thorybes mexicana, Erynnis fredericki, and at lower altitudes in oak-juniper woodland, Chlosyne nycteis, Everes herri and Polites origines rhena. Toliver collected Oeneis a. capulinensis Brown in Capullin Nat'l. Mon. but warns that it is illegal to collect there without a permit and that the rangers strictly enforce this. He suggest nearby peaks such as Sierra Grande where the land is public and there are no restrictions. Capillo Peak in Torrance Co. was reported as "swarming with butterflies". And the sad note Ferris found that the Gila River colony of Speyeria nokomis he reported last year has apparently been wiped out. The Gila River flooded in Catron Co. in the fall of '70 and the area was extremely cold in the spring of '71 with drought conditions, and he found no specimens this year in spite of intensive searching. The colony was located in a slough next to the main channel and the entire area had been covered by flood waters.

ZONE 4: SASKATCHEWAN, MANITOBA, The DAKOTAS, NEBRASKA, KANSAS, OKLAHOMA and TEXAS: Coordinator: H. A. Freeman, Contributors: George Balogh, Chris J. Durden, H. A. Freeman, E. A. Froemel, T. M. & L. E. Gilbert, William H. Howe, Mike A. Rickard, James Scott, Arthur M. Shapiro, and Bill Smith. Coverage very spotty.

GENERAL CONDITIONS: Locally very good. Generally below normal throughout the area.

<u>NEBRASKA</u>: Froemel reported <u>Erinnyis crameri</u> and <u>E. obscura</u> collected during Aug. at Columbus at black light trap. Sept. 6, a damaged <u>Marpesia petreus</u>, and Oct. 2, two <u>Chlosyne lacinia adjutrix</u> were collected. All species were reported as being new to this area. Balogh reported <u>Atrytone delaware</u>, <u>Atalopedes campestris</u>, <u>Polites themistocles</u>, <u>Lycaena xanthoides</u>, and <u>C. gorgone common at Lincoln on June 25.</u>

KANSAS: Howe reported some unusual records as follows: Lycaena phlaeas americana, Chippewa Hills, Franklin County, Oct. 7 (new county record); a female Appias drusilla neumoegeni, Oct. 6, a mile east of Ottawa; a female Chlosyne lacinia adjutrix, Oct. 11, Ottawa. A new colony of Speyeria idalia was discovered in Osage County on June 16. There was a large migration of Libytheana carinenta mexicana during the last week of Sept. which may constitute a new Kansas record. Smith reported Melitaea alma ("fulvia") from near Hardtner on June 15.

TEXAS: Freeman found collecting above normal during the fall in the Dallas area, Early June and late July collecting around Brownsville was below normal. Rickard reported: Angelina Co., Diboll, Sept. 18, Lethe creola, P. yehl; Cameron Co., Brownsville, C. janais, July 6 & Aug. 15; A. multiplaga, Oct. 18; Chambers Co., Anahuac, May-Sept., P. viator, P. panoquin, and P. panoquinoides; Comal Co., New Braunfels, Oct. 21, S. alea, C. simaethis, D. eresimus; Oct. 24, S. alea, P. philea, L. bredowii; Dec. 28, V. stelenes; Grines Co., Hempstead, Sept. 12, A. drusilla; Harris Co., Houston, P. m-album, F. tarquinius, April-July; E. areolata, May 15; C. asychis, Oct. 23; Hidalgo Co., Mission, Game location, Oct. 19, C. zilpa, P. idaeus. Oct. 29-31, Astraptes gilberti, E. daira, K. fatima, C. janais, M. petreus; Bentsen-Rio Grande Valley State Park, Aug. 14, A. laure, L. fessonia, P. astyalus; Santa Ana Wildlife Refuge, July-Aug., P. astyalus, C. rosita, C. definita; Relampago (near Santa Maria), Oct. 19, C. zilpa, D. percosius, N. nyctelius. Medina Co., Hondo, May 22, 23, C. janais, common. Polk Co., Corrigan, L. creola, July-Oct.; P. comma, July 29, Oct. 25; San Jacinto Co., Cleveland, S. liparops, June 6, A. thraso, Sept. 6, A drusilla, July 29. Life history information was obtained on the following: L. creola (Arundinaria); A fatima (Ruellia sp.); E. hegesia (Passiflora sp.); S. alea (Bernardia). Scott reported Philotes rita, 20 miles south of Alpine, Sept. 20, which is apparently a new state record. T. M. & L. E. Gilbert collected around Laredo and found H. charithonius 31 July, 5 Sept., and first week of Oct. representing three apparent generations; A clorinde, 31 July and many sightings; V. stelenes, 1 Sept. and seen through Oct.; M. petreus, first week Oct.; D. julia, occasionally seen through Oct.; B. polydamus, seen 28 Dec.; D. moneta, 28 Dec. Arthur & Adrienne Shapiro reported: Nacogdoches Co., Nacogdoches; F. tarquinius, June 26; A. celtis and clyton abundant same day; E. cymela female and A. celtis male at gas station lights, 11:30 PM, June 25. Appleby: Thorybes bathyllus, Erynnis baptisiae, Achalarus lyciades, Chlosyne gorgone, Limenitis astyanax, Polites themistocles, Ancyloxypha numitor, Euptychia gemma, Colias cesonia, and many common species. Brazoria Co., Surfside, June 12: <u>Panoquina panoquin, P. panoquinoides.</u> Chambers Co., High Island, June 13: <u>P. panoquin.</u> Trinity River, June 13: <u>L. astyanax.</u> Double Bayou, June 12: <u>P. viator, A. numitor</u>. City of Houston and vicinity: Green's Bayou, June 4: C. nycteis. Sam Houston National Forest, June 6: Lethe portlandia, Amblyscirtes aesculapius. University of Houston campus: F. tarquinius, P. m-album, both common, June 11, June 24, Port Houston, near ship channel: Chioides albofasciatus common, also at Houston Country Club, June 10, June 19. Houston C. C.: Atlides halesus, female.

The Durdens collected in Austin region (50 mile radius) 3 Jan.-13 June; 18 July-4 Aug.; 20 Sept.-21 Dec. and took 3,737 specimens of 130 spp. on 150 collecting site/days. Limiting weather was 20°F low on 8 Feb., 101°F high on 20 July. Annual rainfall 23.4% below normal. Very poor collecting until Aug. correlated with monthly rainfall more than 40% below normal. Drought severe enough to affect agriculture but few trees killed. Beginning late July before rains was an outbreak of L. bachmanii (newspaper interest) accompanied by D. gilippus (many v. gilippina at one site), P. agarithe and C. lacinia. Early Aug. torrential rains (mo. 193% above average) broke drought and monthly rainfalls climbed steadily from Sept. 40% under normal to 66.8% above normal in Dec., producing rich fall collecting peaking in Oct., with many rarities completing 2 or 3 broods with increasing numbers. DAYS WITH MORE THAN 20 SPP. TAKEN: 7 from 21 March to 14 May (25 spp. on 5 May); 26 from 20 Sept. to 20 Nov.; (more than 40 spp. per day from 10 Oct. to 21 Oct., with 52 on 13 Oct., and 51 spp. on 16 Oct. SEASON OPENERS: B. philenor (3 Jan.); N. iole, C. eurytheme, C. cesonia, P. protodice, E. nicippe, E. claudia, A. andria, P. communis (11 Jan.); S. melinus (17 Jan.); P. sennae, Anthanassa texana, L. accius (21 Jan.); V. atalanta (24 Jan.); A. vanilae, H. isola (30 Jan.); P. tharos, P. philetas, A. campestris (4 Feb.); C. beon, P. cresphontes, V. virginiensis, C. henrici, M. cas-

talis, H. phyleus (19 Feb.).

SEASON CLOSERS: E. p. gundlachia, E. nicippe, P. protodice, L. bachmanii (21 Dec.); D. plexippus, V. atalanta, C. eurytheme, N. iole, E. lisa, E. claudia, P. coenia, A. aidea, M. castalis, P. communis (20 Dec.).

COMMONER THAN USUAL: B. philenor, P. cresphontes, P. polyxenes, A. midea, P. protodice, C. cesonia, E. mexicana, E. nicippe, P. sennae, P. s. marcellina, P. agarithe, Kricogonia 4 forms, Agr. vanillae, D. julia, H. charithonius, E. claudia, V. cardui, V. virginiensis, V. atalanta (abund. in Dec.), P. coenia, L. archippus, C. lacinia, P. vesta, Anth. texana, A. andria, D. gilippus, D. plexippus, L. bachmanii, A. halesus, C. henrici solatus (reared on Sophora), H. ceraunus, S. pulverulenta, S. mazans hayhurstii, C. nessus, P. communis, P. albescens, P. philetas, P. catullus, A. campestris, H. phyleus, A. delaware, P. vibex, L. eufala.

RARER THAN USUAL: P. glaucus, P. multicaudata, P. troilus, E. rubricata, E. cymela, E. h. sosybius, Cercyonis p. texana, C. nycteis, Asterocampa clyton, leila, antonia & celtis, Phaeostr. alcestis, C. beon, S. calanus, E. o. autolycus, M. smilacis, M. castalis, Everes h. texanus, E. horatius, Epargyreus, N. julia, C. aurantiaca, H. viridis, W. otho, E. vestris.

SPECIALS NOT USUALLY TAKEN IN AUSTIN AREA: <u>P. statira</u> (Jul.), <u>A. monuste</u>, <u>A. drusilla</u> (also Bastrop Co.), <u>E. nicippe</u> v. <u>flava</u>, <u>P. philea</u>, <u>K. castalis</u> f. terissa, <u>E. hegesia</u>, <u>Precis nigrosuffusa</u>, <u>P. evarete</u>, <u>P. zonalis</u> (also in Williamson and Bastrop Counties), <u>A. jatrophae</u>, <u>N. antiopa</u>, <u>L. bredowii</u>, <u>T. elada</u>, <u>C. carlota</u>, <u>A. aidea</u> (summer & winter forms), <u>D. eresimus</u>, <u>S. columella</u>, <u>S. alea</u>, <u>L. cassius</u>, <u>A. m. tamenund</u>, <u>P. oileus</u>, <u>H. laviana</u>, <u>C. ethlius</u>, <u>P. ocola</u> (all in Oct.), <u>Chlorostrymon</u> <u>simaethis</u> (Williamson Co., Oct.)

Other Texas Collecting by Durden: SOUTH (177 spec. of 57 spp. at 9 day/sites) 8-9 May, lower Rio Grande Valley still very dry, poor collecting - Cameron Co. (1.5 mi. WNW Port Brownsville, 6 mi. SE Brownsville, Harlingen) C. perditalis, S. mazans, Euptychia g. freemani; Hidalgo Co. (5 mi. SW Mission, 7 mi. E. Hidalgo) Euptychia g. freemani, H. ceraunus, L. cassius, H. macaira and f. cnemus, A. nysa. Kenedy Co. (10 mi. N Norias) (assoc. "Edwards Plateau" herbs in full bloom on sand hills) E. o. autolycus, 13 Nov. Webb Co. (4 mi. SSE Laredo) P. cresphontes, Kricogonia 3 forms, E. nise, congregated D. plexippus; (Bordas Esc., 15 mi. N Bruni) Thessalia bolli, A. aidea, Asterocampa antonia (very dark). Zapata Co. (Dolores Cr., 13 Nov.) E. p. gundlachia, A. clorinde, A. jatrophae, U. simplicius. SOUTHWEST: (85 spec. of 31 spp. at 7 day/sites) all 5-6 June. Edwards Co. (Pinon-Juniper woodland) E. rubricata, A. halesus, L. marinus, Kricogonia 4 forms; Kinney Co., A. leilia, Calephelis sp. (not rawsoni, nemesis, or perditalis), T. elada, M. castalis; ValVerde Co., Calephelis rawsoni?. WEST: 15 May Jeff Davis Co., 6500-7500 ft. NW slope Mt. Livermore, E. rubricata (same race as Chisos Mts.), E. dorothea subsp., Limenitis ast. arizonensis, L. bredowii, P. acmon, Er. tristis. (mostly in Quercus hypoleucoides woodland). NORTH: 13 June Oldham Co., Hark. titus, Phaeostr. alcestis, P. acmon, A. nysa; Dallam Co., Amblyscirtes oslari. EAST: 87 spec. of 29 spp. on 13 site days, Liberty Co., E. cymela & gemma, W. otho & egeremet, P. viator; Hardin Co., S. edwardsii, E. areolata (5.5 mi. NE Saratoga), C. cecrops; Orange Co., E. cymela, sosybius & gemma, W. otho; Sabine Co., G. marcellus seen; San Augustine Co., E. o. ontario, Satyrium boreale, Polites origenes, (all 6 mi. NE San Augustine), C. cecrops; San Jacinto Co., L. astyanax, all 29-30 May. San Augustine Co., Chioides albofasciata, Oligora maculata (seen), A. numitor; Matagorda Co., D. gilippus, P. glaucus (seen). Best year I have seen yet, 1968 - 1971.

ZONE 5: EASTERN-MIDWEST: MISSOURI, KENTUCKY, INDIANA, ILLINOIS, OHIO, MICHIGAN, WISCONSIN, MINNESOTA, and ONTARIO. Coordinator: M. C. Nielsen. Contributors: G. Balogh, G. Belyea (GB), P. Conway (PC), C. V. Covell, Jr. (CVC), L. Ferge, R. Funk, J. Hafernik (JH), R. Heitzman, R. Holzman (RH), L. Hoying, R. L. Huber (RLH), H. King (HK), R. Kuehn, R. Letsinger, W. Linscheid (WL), L. Martin, T. McCabe (TM), L. J. Melton (LJM), J. Newman (JN), M. C. Nielsen (MCN), R. Rahn, W. Sieker, E. Shull, W. Taft (WT), J. Tuttle (JT), W. H. Wagner (WHW), V. Warczynski (VW).

GENERAL: <u>Danaus plexippus</u> continued to have a good year with one migration observed in Ohio. <u>Thymelicus lineola</u> continues to spread in the region with large numbers reported again this year. Many southern species were reported in the northern states indicating a good movement in late summer - early fall. Notable southern species reported were: <u>Hylephila phyleus, Nathalis iole, Colias cesonia, Junonia coenia. Papilio crephontes and Speyeria idalia</u> were seen more this year than in previous years. <u>Pieris protodice</u> is definitely down again as no one reported on this species. Moth collecting, while not yet significant, continues to interest more collectors who report large numbers of species because of the popularity and ease of using UV lights.

MISSOURI: Heitzman reported collecting was generally poor because of drought which hit in early June, although collecting for early butterflies and moths was good.

Letsinger observed an increase in <u>Colias cesonia</u>, <u>Libytheana bachmanii</u>, <u>Nymphalis antiopa</u>, <u>Speyeria cybele</u> and <u>idalia</u>, while <u>Cynthia cardu</u>i and <u>virginiensis</u> decreased in numbers from last year in the vicinity of Sarcoxie near the southwestern corner of the state. Large numbers of <u>Phoebis sennae eubule</u> were seen in early to late fall compared to a few specimens in the past two years. <u>Danaus plexippus</u> had a good migration in Sept. although slightly smaller than in 1970. Rae also found <u>Antheraea polyphemus</u> in large numbers, an increase over the previous year; he collected his first <u>Eacles imperialis</u> in this area.

Funk submitted new county records from Welch Spring, near Akers, Shannon Co., 28-29 Aug.: <u>Calephelis muticum</u>, <u>Tricholita signata</u>, <u>Cirrhophanus triangulifer</u>, <u>Rhodophora gaurae</u>, <u>Catocala palaeogama</u>, <u>subnata and junctura</u>.

<u>KENTUCKY</u>: Covell reports an early spring, dry April, and rather moist summer. Warm weather extended through Dec. First records were <u>N. antiopa</u> and <u>P. comma</u> at a strip mine site near Cordia, Knott Co. No unusual butterfly records were noted, though hairstreaks (<u>S. edwardsii, calanus falacer</u>, and especially <u>C. gryneus</u>) seemed more abundant than usual. On field trip before Annual Meeting of the Society in Louisville, 29 species were collected at the Horner Wildlife Refuge, Oldham Co., by Leslie Ferge, Jim Tuttle, Greg Florence, Siegfried Scholz, Ken Philip and others. Covell continues to add moth species to the state list, with records from various sources, and the Lepidoptera fauna is now known at about 900 species. <u>N. iole</u> was missing at Falls of the Ohio in Sept., but collecting was generally good in areas visited. Funk recorded <u>C. gryneus</u> and <u>C. cecrops on</u> 16 May near Marion, Crittenden Co.

IOWA: Not reported.

WEST VIRGINIA: Not reported.

INDIANA: Shull collected 83 species of butterflies from 21 March to 16 October - 18 species were found in copula. Previous unreliable record of Pieris napi oleracea was confirmed with the capture of a long series on 12 July and 24 August in Mongo tamarack bog, La Grange Co. Polygonia progne, absent last year, was collected on 14 Sept. Kosciusko Co. The Covells collected 6 C. cesonia near Clarksville, Clark Co., Sept. 30; L. archippus common there, too.

RANGE EXTENSION: <u>Boloria</u> <u>selene</u> <u>myrina</u>, 7 August, Wabash Co., represents considerable southern extension from its usual more northern range.

LATE DATES: Epargyreus clarus, 2 Oct.; Atalopedes campestris, 3 Oct.: Hylephila phyleus, 16 Oct. - all feeding on Zinnias in North Manchester, Wabash Co.

EARLY DATES: Papilio cresphontes, 4 May, Kosciusko Co.; again collected in Aug. in Wabash and Kosciusko Counties - a significant increase over previous years.

ILLINOIS: The weather in the vicinity of St. Louis was generally warm and dry, with above 50 degree temperatures extending into third week of Dec. Collecting in Madison Co., Funk reported on some of the more unusual records: Calephelis muticum, 14 June; Callophrys henrici, 12 April; Euphydryas phaeton, common, 14 June; Apantesis phalerata, 25 Aug.; Haploa clymene, 13 Aug.; Lithophane bethunei, 16 Nov.; Trachea delicata, 25 Aug.; C. triangulifer, 26, 27 Aug.; Zale undularis, 12 Sept.; Scoliopteryx libatrix, 15 Dec.; Rivula propinqualis, 1 Sept.; Epizeuxis majoralis, 17 July, Apatelodes torrefacta, 22 June; Erannis tiliaria, 16 Nov., 4, 9 Dec.; Prolimacodes badia, 26 July, Harisina americana, 13 Aug.; Dysodia oculatana, 25 July.

STATE RECORD: Philtraea monillata, late Aug. - early Sept., Edwardsville.

LIFE HISTORY: Funk reared Heterocampa manteo, bilineata exsanguis and Gluphisia septentrionalis on Quercus velutina near Wanda.

OHIO: Hoying reported on a migration of <u>Danaus plexippus</u> on 12 Sept. at Minster, Auglaize County. The Monarchs were first observed at 1:10 PM (EST), flying north to south at a height of 50 to 200 feet; on a 50 foot base line, they passed at a rate of 1800 per hour from 1:10 to 1:35 PM. The rate slowed at 1:35 PM but migration continued sporadically until 3:00 PM, and ending at 5:03 PM. The width of the flight path was approximately one mile. The day was overcast, north wind of 15-20 mph with a temperature of 68 degrees, Estimated 25,000 Monarchs passed during this observation!

Martin reports of two small colonies of <u>Euphyes dukesi</u> still flourishing near Wellington, Lorain County, despite threats from farming and other land-clearing practices. Other choice species collected were: <u>T. lineola</u> fm. <u>pallida</u>, late June; <u>H. phyleus</u>, mid-Oct.; <u>Chlosyne</u> harrisii liggettii, Portage Co., Speyeria idalia, Erie Co.

In Paulding County, 11 July, Hafernik, Melton, Nielsen and Wagner found <u>E. dukesi</u> common in section of the old Miami Canal - many flushed from wet sedges before the sun appeared. Also taken here were <u>Calephelis</u> <u>borealis</u> (few, worn); <u>S. caryaevorus</u>, 2, worn; <u>Lethe</u> <u>appalachia</u>, several worn.

MICHIGAN: The winter through Jan. was extremely cold with considerable snowfall throughout the state. Jan. was one of the coldest of record, while Feb. turned out to be one of the mildest of record with much thawing and rain. March was extremely cold and Apr. was generally mild with little rain. The season started about the usual time with the appearance of the early emerging Noctuids coming to UV in mixed hardwoods in mid-state.

Nielsen enjoyed one of his better seasons with collecting-observing 93 species of butterflies and some 600 species of "Macro" moths during the period of 12 Apr. to 17 Oct., including 40 nights at UV lights. The results of several other collectors gave this state the greatest number of species reported for the region.

D. plexippus continued to show an increase over the previous year although no migrations were reported. The following butterflies were more numerous this year: Erynnis persius, juvenalis, Thymelicus lineola, Epargyreus clarus, Papilio cresphontes, Harkenclenus titus, Satyrium edwardsii, Speyeria aphrodite. Pieris protodice continues to be absent, while P. marcellus is still down in numbers in the Morenci area, Lenawee Co. Junonia coenia made a good appearance in scattered localities. Sphinx eremitus was quite common at Bouncing-bet flowers (GB, WT) in Ingham Co. during July. Belyea, Nielsen and Taft found Catocala in good numbers in southern Michigan, recording 33 species at bait, UV and on trees during the day. Notable was increase in C. nebulosa and subnata this year-two generally scarce species! Hyalophora cecropia and Actias luna were down this year. Tuttle, recording 20 Sphingidae species from Monroe Co., found Paonias myops much commoner than in previous years, while Pachysphinx modesta, Ceratomia catalpae and Sphinx kalmiae were down from last year.

BUTTERFLIES-CHOICE & UNUSUAL RECORDS: Amblyscirtes samoset, Washtenaw Co., 5, 6, June (GB, MCN) good series in beech-maple feeding on waterleaf; Euphyes dukesi, Monroe Co., 18 July (LJM, WHW), new county record - third location in state; Atrytone delaware, Monroe Co., 18 Sept. (GB, MCN), unusual second (partial) brood; Oarisma powesheik, Livingston, Oakland Co., 7-15 July (RH, JH, MCN, WHW), again numerous in bog-meadows feeding on black-eyed susan; Pyrgus centaurae wyandot, Otsego Co., 15, 16 May, several on wild strawberry blossoms; Erynnis baptisiae, Monroe Co., 18 May, 5 June (MCN), photographed pair in copula, eggs on wild indigo; Callophrys irus and niphon clarki, Allegan Co., 22, 23 May (GB, MCN, WT); Feniseca tarquinius, Otsego Co., 30 July (MCN), collected some 30 larvae feeding on woolly aphids on tag alder; Phyciodes batesii, Otsego Co. 31 July (MCN), suggesting a second brood; Speyeria cybele krautwurmi, Keweenaw Co., 25 July (MCN) along old logging roads on daisy and thistles; Oeneis jutta ascerta, Mackinac, Schoolcraft Co., 21, 22 June (GB, MCN); Euptychia mitchellii, Cass, St. Joseph Co., 3 July (PC, DE, JH, MCN, WT), numerous in type locality; Lethe appalachia, Monroe Co., 18 July (LJM, WHW), new county record for this recently described species.

MOTHS-CHOICE & UNUSUAL RECORDS: <u>Sphinz</u> <u>luscitiosa</u>, Monroe Co., 12 June (JT), new county record; <u>S. canadensis</u>, St. Joseph Co. 13, 14 August (GB, MCN, VW), four males at UV - southern most record for state; <u>H. columbia</u>, Menominee, Schoolcraft Co., 10, 21 June (JN, MCN), a pair at UV - new county records; <u>Noctua oblata</u>, <u>Polia nevadae canadensis</u>, <u>pulverulenta</u>, Schoolcraft Co., 21 June (MCN) at bait and UV; <u>Xylomyges alternnans</u>, Allegan Co., 22 May (GB, MCN), taken here last year for new state record; <u>Phuphena u-album</u>, St. Joseph Co., 13 August (MCN), second record for the state; <u>Eutricopis nexilis</u>, Otsego Co. 16 May (MCN), on wild strawberry blossoms (also reared from <u>Antennaria</u> sp.); <u>Syngrapha rectangula</u>, <u>alias</u>, <u>octoscripta</u>, <u>epigaea</u>, <u>Autographa bimaculata</u>, <u>mappa</u> and <u>pseudogamma</u>. Chippewa, Keweenaw, Otsego, Schoolcraft Co., 17-31 July (MCN), all collected at dusk feeding on fireweed flowers; <u>C. judith</u>, Lenawee Co., 21 Aug. (MCN), new county record; <u>Heteropacha rileyana</u>, Lenawee Co., 29 May, 20, 21 Aug. (MCN), first records of adults in 20 years at UV, indicating two broods.

STATE RECORDS: <u>Satyrium calanus falacer</u> ab. <u>heathi</u>, Newaygo Co., July 10 (JH); <u>Septis mixta</u>, Otsego Co. 30, 31 July (MCN), 3 males at bait in oak-pine; <u>Syngrapha abstrusa</u> and <u>cryptica</u>, Otsego, Schoolcraft, 18, 19 July (MCN) several at fireweed flowers at dusk-species recently described by Eichlin; <u>Paraphia esther</u>, St. Joseph Co., Aug. (MCN), and <u>P. piniata</u>, Clinton Co., 11 June (MCN) - one each at UV.

FOODPLANT RECORDS: Hemileuca maia (?), many larvae feeding on small aspens, Monroe Co., (GB, MCN, WT) foodplant record (if maia). Exyra rolandiana, Livingston Co., larvae in pitcher plants, Sarracenia - new county record. (MCN)

<u>WISCONSIN</u>: Ferge sent in one of the best reports from the state reporting observations and captures in Marathon County. His discovery and investigation of a large acid bog in the SE part of the county resulted in two new county records: <u>Oeneis jutta ascerta</u>, 12 specimens taken and others sighted on 11, 22 June, (southermost locality to date) and <u>Callophrys augustinus</u>, common, 8 - 22 May. Other species found moderately common were <u>Colias interior</u>, 11, 22 June, 19 Aug.; and <u>Lycaena epixanthe</u>, 22 June. Collecting in the Wausau area, <u>Euphydryas phaeton</u> and <u>Satyrium acadica</u> were collected on 24 July and 3 specimens of <u>Nathalis iole</u> were taken on 1 Sept.

Ferge found moth collecting down this year, possibly due to cool night temperatures during the season. Sphingids were below average as only 7 species (compared to 21 species in 1970) were seen: <u>Ceratomia undulosa</u>, <u>Sphinx kalmiae</u>, <u>drupiferarum</u>, <u>Darapsa pholus</u>, <u>Calasymbolus myops</u>, <u>excaecata</u> and <u>Smerinthus cerisyi</u> - all collected in mid-June at UV. <u>Catocala</u> were about normal with 13 species recorded; 9 species were taken on 18 Aug. in a backyard bait trap using fermented apple-beer mixture. <u>Catocala</u> <u>cerogama</u>, <u>parta</u> and <u>coccinata</u> were especially numerous on 20 July at UV.

Three interesting skippers were reported from Milwaukee, Menomonee River Park, by Balogh: <u>Poanes viator</u>, 21 July (1 spec.); <u>Atalopedes campestris</u>, 11-23 Aug. 3 specimens on red clover and marigold; <u>Thymelicus lineola</u>, 16 June - 16 July. <u>Lethe eurydice</u> was common in the flood plain of the Menomonee River in July.

Rahn sent a brief report from Marathon County - collecting in late June - early July. He found <u>Colias interior</u> and <u>Chlosyne harrisif</u> (very local) in larger than normal numbers. A single specimen of <u>Junonia coenia</u> was taken - last county record was in 1935!. Hemaris diffinis was moderately common here.

Collecting at Dundee, Fon du Lac County on 5 June, Kuehn recorded 3 interesting species: <u>Carterocephalus palaemon mesapano</u>, <u>Hesperia sassacus and Glaucopsyche lygdamus couper</u>i. Of the hundreds of <u>Speyeria seen near Dunbar</u>, <u>Marinette Co.</u>, <u>17 July, 95% were aphrodite</u> while the rest were <u>atlantis</u> and <u>cybele</u>. Included were 3 specimens of <u>Euptoieta</u> <u>claudia</u> - always a desirable species!

Speyeria idalia, usually scarce in Iowa County, was very common in a wet meadow on the Sieker farm. Sieker collected his first Melitea gorgone and C. niphon at Lucerne, Waushara Co. - new county records. He collected numerous sphingids during the season with S. cerisyi and C. excaecata the most common. Sphinx canadensis (pair) was collected in Door County - the first capture in many years. Sieker also found Saturniids common and Catocala more common than last year. Choice underwings included: epione, serena, judith, neogama, palaeogama, semirelicta, clintoni and similis.

MINNESOTA: Ron Huber sent a brief report of the more unusual captures for the state, including records of McCabe and Linscheid.

CHOICE AND UNUSAL RECORDS: E. conspicua, 23 July; dion, 15 July; Poanes massasoit, viator, 9 July; Hylephila phyleus, 11 Oct. (third state record); C. cesonia, 16 Aug. (21 specimens; one-day record!); Eurema mexicana, 19 Oct.; N. iole, 19 Oct.; L. bachmanii, 4 Oct.; A. celtis, 11 July - all new records from Watonwan County (WL). Hemiargus isola, 4 Oct. (WL) near Butterfield, Watonwan Co. - new county record. E. juvenalis, A. vialis and niphon - all on 6 June (RLH), Todd Co., - new county records. C. niphon, polios and E. olympia - 6 June (RLH), Wadena Co. - new county records. On 9 May, Huber collected one C. niphon in Sherburne Co. in the Sand Dunes State Forest for a new county record and a significant southern range extension for this elfin.

STATE RECORDS: <u>Hesperia assiniboia</u>, 21 Aug. near Felton, Clay Co. (TM) - a dozen specimens collected on blazing star blossoms along with <u>H. pawnee</u>. <u>Leptotes marinus</u>, 4 Oct., near Butterfield, Watonwan (WL), one slightly torn female.

ZONE 6: SOUTH: ARKANSAS, LOUISIANA, TENNESSEE, MISSISSIPPI, ALABAMA, FLORIDA, GEORGIA, SOUTH CAROLINA, NORTH CAROLINA and VIRGINIA. Coordinator: Bryant Mather. Contributors: Vernon A. Brou, Richard L. Brown, D. L. Burris, C. V. Covell, Jr., Timothy H. Fowler, Richard S. Funk, Rick Kergosien, Bryant Mather, Robert L. May, Harry C. Monk, Leo J. Paulissen, and Richard E. Price, Jr.

ARKANSAS: Funk reported <u>Catocala ulalume</u> (Det. J. R. Heitzman) taken near Greenland, Washington Co., Aug. 22. Brown reported on his primary collecting site, White River National Wildlife Refuge, Pickens Co. (bottomland and mixed hardwood forest): <u>A. celtis</u> extremely abundant, sometimes covering fishermen and boats on the lakes; <u>Catocala</u> spp. abundant, esp. <u>C. illecta, C. amatrix</u>, and <u>C. amica.</u> Fairly abundant Sphingidae included <u>E. fasciata</u>, <u>E. pandorus</u>, and <u>P. modesta</u>.

NEW STATE RECORDS: <u>Acontia delecta</u> (Pickens, June 23) and <u>Lithacodia indeterminita</u> (4 miles SE Ethel, June 8, 18, 27, Aug. 10), both Noctuidae, Det. by E. L. Todd). New Pickens Co. records were: <u>Erebus odora</u> (Aug. 12), <u>Darapsa versicolor</u> (July 29), and E. ello.

Paulissen reported that in NW Arkansas spring was early but dry, late June was very hot, July was pleasant, and the fall extended well into Nov. Generally, a good butterfly year; many spring species were in uncommon abundance: A. celtis, S. cybele, N. antiopa, L. archippus, A. midea, E. ontario (very numerous), S. liparops, L. creola and good numbers of G. lygdamus. In Washington Co. R. Heitzman collected S. caryaevorus for a new state record, and S. edwardsii for a new county record. In the fall L. accius and L. bachmanii were abundant. Fall migration of D. plexippus was somewhat heavier than usual. A general butterfly migration of southern species was apparent during the first week of Oct. when Paulissen collected a male and female Phoebis agarithe in Washington Co. along with Appias drusilla, a new state record. E. funeralis also appeared that week. A single E. mexicana was taken 20 July. E. phaeton was down in numbers, perhaps due to forest fires, and A. vanillae was almost absent.

Moth collecting was generally unspectacular. Most outstanding was appearance of many small underwings: C. amica, C. clintoni, C. gracilis, C. mira, C. micronympha in many forms, C. minuta, C. similis, and C. connubialis including form cordelia. C. epione was very common, 250 were counted one evening at store building lights on the city square. Some specimens of C. paleogama and C. lacrymosa and other large Catocala were small in size probably due to the cool spell in the fall of 1970 which retarded larval growth. Other notable moths collected were Ennomos magnarius, Tolype velleda and Hyparpax venus. Malacosoma americana were very common. Sphingid collecting was not good, but 40 or more larvae of P. juanita were found. Of thirty collected, only about 7 were not parasitized. No tropical migrants were seen, compared to 4 species (E. odora, T. zenobia, E. ello and E. alope) collected in 1970. One university student did report seeing a dead E. odora in the county.

<u>LOUISIANA:</u> Brou added to the saga of <u>Urbanus dorantes</u> dorantes in the southeast, recording it from Taft, La., in Nov., 1969.

<u>TENNESSEE:</u> Monk reported a poor year for numbers of species and individuals in the Nashville area. No new or unusual records were obtained. The <u>D. plexippus</u> migration peaked on Sept. 20, when 40 were counted in late afternoon in one and one-half hours crossing a 200-yard front. On Sept. 27 Monk observed 63 feeding on flowers in a city park. Last one seen Nov. 12. All migrants observed traveling somewhat west of south. <u>Phoebis sennae</u> migration first observed Aug. 19, traveling in usual SE direction; one or more on six days at end of Aug. <u>Peak was last week of Sept.</u> into early Oct. (nineteen in one rural locality within 6 hours on Sept. 24; thirteen in city park within 4 hours on Sept. 27). Last one seen Oct. 30th. Overall numbers greater than 1970, but below average of last 24 years.

MISSISSIPPI: Kergosien reported the following from Big Biloxi Recreation Area, Harrison Co. (March - June): S. kingi (common), S. liparops strigosa, S. calanus falacer, C. henrici turneri, P. m-album, A. carolina reversa, and A. alternata. C. argiolus pseudargiolus abundant May 15 - 16. Present in good numbers were: G. marcellus, L. portlandia, E. areolata, Calephelis virginiensis, and O. maculata. C. pegala, A. delaware, and A. arogos, common in 1970, were apparently absent this year at Big Biloxi. Kergosien also reported good collecting at Bay St. Louis, Hancock Co. On 29-30 Aug. 41 species were recorded. Good catches were E. dion alabamae, H. isola alce, E. palatka, and D. gilippus berenice. A monuste fairly common from 18 May to end of Dec. A. jatrophae absent after last year's outbreak. D. plexippus seen migrating, but not A. monuste. Mather reported the number of species of Sphingidae and of butterflies known from the state each increased by one in 1971: Aellopos clavipes (1 female from Bay St. Louis, Aug. 24, 1970, coll. by Bill Kergosien and det. by R. W. Hodges) is the 42nd sphingid species; and Lethe appalachia (coll. 29 May, 1971, by Charles T. Bryson at a roadside park off Highway 72 near luka, Tishomingo Co.) is the 140th butterfly species.

FLORIDA: Burris reported on the Tampa area as follows: Temperature average, except Feb. above and Apr. below average, and last spring frost Apr. 9. Oct. through Dec. warmest in five years, with Dec. the warmest since 1931 with no late season frost. Rainfall average except that summer months had about 80% normal, while Sept. had about 200% normal. Most species in normal abundance, but many collecting sites are disappearing due to development in the area. Good flowers for collecting were Selfheal (Prunella vulgaris) in early spring, attracting Hesperiidae, G. marcellus and others; and Pickerel Weed (Pontederia) later in the year (Hesperiidae, P. glaucus, H. thysbe and others). Pieris protodice was present Apr.- Dec. and locally abundant in late May; C. eurytheme was taken sparingly from Apr. 19-May 1; Euptychia cymela viola was on the wing in a very localized colony from March 12-Apr. 17; E. areolata present in May, and again from Aug. - early Nov. in moist, grassy roadsides. In southern Florida, the following records: P. frisia, South Bay, Palm Beach Co., Aug. 21; P. rapae, large numbers along U. S. 1 about 10 miles south of Florida City on May 8; A. drusilla neumoegenii, sparingly in hammocks on Key Largo in early May, but very common there in late Aug.; Papilio aristodemus ponceanus, about a dozen seen on Key Largo in or at edges of hardwood hammocks,

May reports from south Florida between March 26 and Apr. 14 (Naples, E. Naples, Key Largo, and the Everglades): A. monuste, P. coenia, N. iole, P. tharos, O. maculata, H. charithonius, P. vibex, P. polyxenes, P. sennae, P. agarithe, H. phyleus, P. palamedes, L. archippus floridensis, A. vanillae, A. jatrophae, H. thomasi, E. hermes, P. batabano, and E. zestos. Single specimens were taken of: E. arcolata, P. m-album, C. cecrops, B. pseudofea, A. delaware, Calephelis virginiensis, and P. communis. Moths included E. ornatrix (Mar. 26, Apr. 2, 12), M. rustica (Mar. 26), and X. tersa (Apr. 3).

Covell found butterfly collecting poor and black lighting fair on Terra Ceia Island, Manatee Co., during the first week of June.

SOUTH CAROLINA: Covell recorded the following at the Wedge Plantation near McClellanville, Charleston Co., on Dec. 15 and 16: P. rapae, P. sennae (common), E. nicippe, E. daira (winter form), E. lisa, J. coenia and H. phyleus.

NORTH CAROLINA: Price reports a wet and cold spring, and wet and cool summer in the mountains, resulting in a rather poor collecting season. P. tharos was the most common species, and D. plexippus migrants were few compared with thousands

in 1970. Some good captures were: <u>Pieris virginiensis</u>, Mars Hill, Madison Co., Apr. 11 and 25; <u>F. tarquinius</u>, Pisgah Nat. Forest near Dillingham, Buncombe Co., Aug. 7; <u>P. comma</u>, Mars Hill, Mar. 13, Apr. 25, Aug. 25, Oct. 3, and Pisgah Nat. Forest Aug. 15; <u>P. faunus smythi</u>, Balsam Gap, Blue Ridge Pkwy.; near mile 360 (el. 5,317 feet), Buncombe Co. Aug. 28; and <u>P. progne</u> (same data as <u>smythi</u>). Covell observed <u>C. eurytheme</u> and <u>E. nicippe</u> at Lake Lure on Dec. 14, and found moth collecting excellent at Bat Cave in early June, taking a <u>second Scopula ordinata</u> there.

<u>VIRGINIA</u>: Price reports a single <u>E. ontario</u> taken on <u>Apocynum cannibinum</u> near Clifton Forge, Allegheny Co., on June 21. Covell collected only common species in the two Eastern Shore counties during the last week of May, bringing to 81 the total counties visited over a 14-year period.

ZONE 7: NORTHEAST: QUEBEC, NEW BRUNSWICK, NOVA SCOTIA, NEW ENGLAND STATES, NEW YORK, NEW JERSEY, PENNSYLVANIA, DELAWARE, MARYLAND, and DISTRICT OF COLUMBIA. Coordinator: L. Paul Grey. Contributors: S. Anthony, W. Boscoe, E. Brower, R. Bryant, G. Ehle, R. Gray, H. Hensel, J. Holmes, W. Kiel, R. May, M. Okolowicz, E. Peters, R. Robbins, R. Rosche, D. Schweitzer, A. Shapiro, and R. Stanford.

QUEBEC: Anthony, Kiel and Gray visited Mt. Albert July 18-19, and found the Oeneis flights over (only one battered taygete seen). The "best time" for Oeneis seems unpredictable, but is usually the first hot week in July, often averaging around July 12.

NEW BRUNSWICK: Hensel and Mason found the Green River area, Madawaska Co., productive in Aug., reporting a "heaven" of Polygonia. T. lineola is, according to Hensel, becoming well established along the upper St. John Valley. Grey found L. dorcas and C. tullia sp. still thriving at Bathurst July 26-27, although shorefront building is proceeding at an apalling rate. The good collecting here is confined to salt meadow areas along the Bay rim.

LIFE HISTORY NOTE: Kiel reared a P. brevicauda from an egg collected on Mt. Albert on a small undetermined umbellifer. The shoreside Lygusticum and the Giant Wild Parsnip are generally considered to be first and second choice food plants of this species.

MAINE: Brower reports A. numitor increasing in numbers and spreading (scarce and local earlier in the century), and S. liparops more numerous (corresponding to other Satyrium records, and those of other Theclinae, as "swarming"; Grey observed S. acadica in fair numbers on roadside Dogbane near Vanceboro in late July). Peters took a male of the rare L. thoe at Lee, July 23, and good moth records of H. gracilis, June 19, Great Pond, and Anarta cordigera vic. Mt. Katahdin, July 6 (Grey took 20 cordigera off one patch of Andromeda blossoms at Passadumkeag in mid-July). Stanford lists common species from vic. Brunswick (July 2) and Mt. Desert (July 3), and only 27 specimens taken along the road and bog edges of the "Old Caribou Rd." at Passadumkeag on July 4 in good weather (in the 30s, the 6 hours he collected there would have yielded tenfold this number). Brower, at Augusta, took 2 Herse cingulata after 40 years of expectation (Sep. 20, Oct. 15). He remarks that southern moths such as Magusa orbifera were higher than normal in numbers. He recorded a NEW STATE RECORD, Laphygma exigua, Oct. 26. Schweitzer collected by light trap and bait in Camden, Knox Co. in late Aug. and early Sept., adding a NEW STATE RECORD, Antiblemma inexacta. He reports the best collecting in 8 years there, with such good catches as Catocala briseis, connubialis (typical and var. cordelia), palaeogama, relicta (most common), unijuga, ilia, and concumbens; S. kalmiae, D. hylaeus, Euxoa ontario and mimallonis; Lithophane baileyi, inominata, and petulca (these 3 surprisingly early in autumn); Lithomoia solidaginis; Oligia mactata and illocata. Nymphalis j-album was fairly common at bait, and P. faunus was taken Sep. 5, Schweitzer's first at Camden.

NEW HAMPSHIRE: Apologies are due R. Gray, whose 1970 report was mislaid and overlooked by the Coordinator. His 4-page list, consisting of new county records from Grafton Co., is in Grey's files, available to researchers.

Coenonympha tullia ssp., a NEW STATE RECORD, was collected in 1970 as follows: Lebanon, Grafton Co., June 12, 1 male (Gray); Groveton, Coos Co., June 14 (2 females) (Kiel); and Piermont, Grafton Co., Aug. 26-27, a fresh pair (Anthony). In 1971 the Permont colony was found well established, with numerous individuals recorded in the last two weeks of both June and Aug. Peters recorded common species from Jefferson, Coos Co.; his Catocala coelebs (Aug. 6) deserves note, and his Limenitis astyanax from Jefferson Notch is especially interesting, this being arthemis country. Okolowicz found F. tarquinius abundant vic. Keene, Cheshire Co., June 12-19 and July 15. Kiel had good luck netting Plusiinae on Milkweed and Dogbane at dusk and just after dark - a method used by some of the earlier German collectors. Holmes took Metanema determinata at Groveton on June 18 and Aug. 1

MASSACHUSETTS: Peters submitted data on 27 species of butterflies and 50 of moths, 20 of the latter <u>Catocala</u>, all from vic. Carlisle, Middlesex Co. Noteworthy are: <u>T. polyphemus</u>, Aug. 12 (first Saturniidae record since 1964); <u>autographa contexta</u>, Aug. 25; <u>Amolita fessa</u>, July 14; <u>Sphecodina abbottii</u>, May 26; <u>Deidamia inscripta</u>, June 5; <u>Panchrysia purpurigera</u>, Aug. 4; <u>Catocala judith</u>, Aug. 25; <u>C. dejecta</u>, Aug. 20; <u>C. similis</u>, July 26; <u>C. consors</u>, Sept. 9; <u>C. amica and palaeogama</u> were most abundant. Holmes reports for Essex Co. that <u>S. liparops</u> was up in numbers, and that he took <u>C. henrici at Essex</u>, May 12. From Rockport he recorded: <u>C. epione</u>, July 30, Aug. 14; <u>Allotria elonympha</u>, Aug. 4; <u>Darapsa versicolor</u>, July 26; a pair of <u>Haploa clymene</u>, July 21, 28; and <u>Harrisimemna trisignata</u>, July 27.

RHODE ISLAND: Okolowicz reported briefly on Bristol, Providence and South County. All sulphurs were very low; P. coenia coming back; T. lineola swarming; C. argiolus extremely abundant in all broods; and C. gryneus higher than normal.

<u>CONNECTICUT</u>: Okolowicz noted absence of a second brood of <u>C. nycteis</u> in his Litchfield collecting area, his latest capture being July 24. He found <u>P. viator</u>, new to him there, on July 12. Other reports show <u>viator</u> explosively high. Stanford, stopping for lunch at a Merritt Parkway rest stop near North Haven, reported that in a powerline cut he could "barely see, for the millions of hairstreaks," and that he collected over a hundred <u>caryaevorus</u> and nearly as many <u>calanus</u> falacer in less than an hour.

<u>NEW YORK</u>: Shapiro collected extensively on Staten Island, giving the first good list since W. T. Davis's of 1910. Some selected records include: <u>Atrytone arogos</u>, NEW STATE RECORD, July 4-21 (reared on <u>Andropogon scoparius</u>; found locally

common on serpentine barrens); the following COUNTY RECORDS: <u>C. nycteis</u>, July 3, Sept. 6; <u>P. m-album</u>, Oct. 5; <u>T. lineola</u>, common in July; <u>L. accius</u>, Sept.22, Oct. 8; <u>P. vibex</u>, Sept.-Oct.; <u>P. panoquin</u>, Aug. 16-Sept. 1; <u>P. ocola</u> (2nd record), Oct. 24 - Nov. 6; other good species: <u>L. appalachia</u>; <u>L. portlandia anthedon</u>; <u>P. progne</u>; <u>L. astyanax proserpina</u>; <u>C. irus</u>; <u>F. tarquinius</u>; <u>L. thoe</u>; and <u>E. martialis</u>. Unusual individuals included a mostly-male mosaic gyandomorph <u>C. eurytheme</u>, and extreme melanic <u>P. coenia</u>, and a Sept. 6 catch of <u>C. argiolus</u> form <u>marginata</u>. <u>E. lisa</u>, <u>P. communis</u> and <u>P. sennae eubule</u> were not seen; <u>L. archippus and astyanax</u> were down; and <u>P. viator</u> was seen by millions on landfill, feeding and ovipositing on the reed, <u>Phragmites communis</u>. Tens of thousands of <u>S. calanus falacer</u>, <u>caryaevorus</u>, and <u>liparops</u> were seen, the latter ovipositing on <u>Aronia melanocarpa</u>. <u>D. plexippus</u> migration thinner than 1970, peaking Sept. 27-Oct. 5; no <u>C. cardui</u> flight, and <u>C. virginiensis</u> and <u>V. atalanta</u> spotty. Weather was bad in early spring and midsummer, with torrential rains; mild fall resulted in late flights (<u>C. eurytheme</u> in numbers on Dec. 21). Moth collecting was poor; <u>U. bella</u> migrating on South Shore, Oct.-Nov.; also some <u>Anticarsia gemmatilis</u>.

Among Shapiro's upstate records were: A. midea flying with P. virginiensis at Armonk, Westchester Co., May 7 (virginiensis fed in lab on Dentaria laciniata); at Painted Post, Steuben Co., Aug. 13, an orange HW Arctia caja was taken (new County record and new southern N.Y. limit). Many hairstreaks still flying on Aug. 22; and H. leonardus literally swarming on Joe-Pye Weed. F. tarquinius a new county record there, too (Aug.9), and also a new Schuyler Co. record (Texas Hollow area). Marsh collecting good vic. Amenia, Dutchess Co., in July, where C. pegala alope was orange-blotched in both sexes.

Robbins reports from Suffolk Co. on Long Island that he took a series of <u>E. ontario</u> in a powerline clearing among "hundreds of <u>S. calanus falacer</u>, and a few edwardsii, <u>liparops</u> and <u>melinus</u>." Earlier in the year <u>C. henrici</u> and <u>augustinus</u> were taken at the same spot.

NEW JERSEY: Stanford's 57-species list of diurnals taken mainly in Sussex Co. and vic. Ft. Dix, Burlington Co., includes many desirable species, such as: C. polios and henrici; niphon and augustinus abundant; irus rare; hesseli and gryneus locally plentiful; and a few A. midea (early spring, vic. Ft. Dix). Singles of F. tarquinius, June 12, and E. ontario, June 19, at Lakehurst. E. mitchelli was taken in Sussex Co. and a few E, areolata were taken at Ft, Dix in early July. Other good catches were: C, borealis, L. thoe, E. dion, S. acadica, Sussex Co., early July; P. aaroni, Tuckerton, June 20; H. attalus, Ft. Dix, late July; C. cecrops, Cape May, mid-Aug.; H. leonardus seen spottily all over southern N.J.; at Great Piece Meadows, Fairfield, over 400 S. calanus falacer counted in one day on milkweed blossoms, and S. acadica taken in good series, July 1-2 (L. appalachia also taken then); and A. delaware, Black Meadows, July 1. Moths included the following: A. nessus, 10 spp. of Catocala, including epione, concumbens and cara; Gypsy Moth (P. dispar) defoliation noted near Fairfield. Sphingids seemed down, and observations were made on C. promethea rearing. Shapiro noted the P. dispar defoliation from Staten Island, N.Y., into the New Jersey pine barrens where, as he dryly remarked, it was sure to result in havoc, either from the insects themselves, or from the insecticides applied to "control" them. Schweitzer collected in the Burlington Co. pine barrens, and found spring extremely dry, with major forest fires as usual for the area. Little was taken at light and nothing at bait in spring, and Lithophane and other hibernators were absent (perhaps they had emerged in Feb.). On Apr. 21, swarms of Zale (calycanthata, bucholzi, squamularis, obliqua, submedia) were taken at bait, but only one Lithophane. In fall, however, Lithophane were numerous, most captures being made in mid-Dec. by bait trap (L. adipel, thaxteri, signosa, and patefacta; commoner species in numbers). Other moth records: Eupsilia down in spring; Feltia volubilis, May 25, New Lisbon; Scopula purata June 13, Batsto; new Pine Barrens records at Batsto May 11, Percnoptilota multiferata and Acronicta noctivaga; and Tacparia zalissaria var. darlingtoni, June 5, near Atsion.

PENNSYLVANIA: Ehle, who has been keeping tabs on the butterfly populations in Lancaster Co. since the inception of the Summary program, reports '71 was best characterized as a good "average" season. The outstanding capture was made for him, by an obliging spider: a Lerema accius, Erynnis sp. were up, also B. selene, E. cymela, Euphy, phaeton, G. marcellus (spring), P. troilus, I. augustinus, E. comyntas, S. cybele. Some of the species which were high in 1970 were notably scarce in '71, e.g., L. phlaeas, Cynthia virginiensis, E. lisa. Also, S. aphrodite has remained low for several years. Ehle's Lethe anthedon colony was low and very late in emerging (which, strangely, was true of colonies in central Maine). Most skippers remained "good". His best "outbreak" seemed to be of Asterocampa, in the southern part of the County; even the clyton was abundant. The Hairstreak explosion evidently did not reach this area since they were reported much as usual, in fairly small numbers. For Bucks Co., Boscoe reports that he ran a black light all summer and can supply data if needed. His short list of goodies is limited to fruits of the night, hence the 7 specimens of Strymon liparops thus taken in early July are memorable. He lists 16 species of sphingids, 26 Catocala and most of the resident saturnians and arctiids, including E. imperialis and Ec. deflorata. Species underlined as choice: sphingids: cingulata, jasminearum, eremitus, abbotti and inscripta. Catocala: flebilis, serena, subnata, unijuga, parta, crataegi and connubialis.

An exhaustive report for Pa. was submitted by Schweitzer, and is available to researchers from Grey, since much must be omitted here. To save space, the following localities will be abbreviated as shown with reference to species; and the 27 new STATE RECORDS are indicated with asterisks (*). The latter are mostly associated with pine barrens at the Resica and Nottingham sites.

LOCALITIES: Schuylkill Co. (S): Acid bogs, high elevations; some pines and much cranberry. All collected by Eric Quinter. Spinnerstown, Bucks Co. (SP): Typical deciduous forest with nearby marshy, swampy areas. Bill Boscoe, collector. Strafford, Chester Co. (ST): Residential, with some native trees and wooded patches. Schweitzer, collector. French Creek Park, Berks Co. (FC): About 6000 acres of relatively undisturbed deciduous second growth, oak dominant, with red maple common in swamps; hickory, tulip tree, spicebush, blueberry, huckleberry, and black birch all fairly common. Schweitzer collecting with 20-watt overnight trap, Apr. 13-Oct.31. Nottingham Barrens, Chester Co. (NB): Part of Serpentine Barren, about 2 sq. miles, dominant growth are Pitch Pine, several oaks (Q. ilicifolia, stellata, marililandica; aspen (P. grandidentata only); Red Maple along streams; locust; and Smilax; Blueberry and other Ericaceae uncommon. Large areas have a grass-herb climax similar to smaller Serpentine Barrens. Past history of severe fire and mining, mostly for Chromium. Schweitzer, collector; black light and bait; no collecting past 1:00 A.M. Resica Falls Scout Reservation, Monroe Co. (RF): Miles of nearly wild forest, el. 750 - 1200 ft.; two intermixing forest types; climax second growth oak-hickory, with patches of hemlock and black birch with few large white pines; burned areas (most recent fire about 1954) dominated by scrub oak, scarlet oak sprouts, black oak sprouts, blueberry, huckleberry, pitch pine, gray birch, Comptonia, aspens, and few herbs. Schweitzer, collector; two overnight black lights, June 21 - Aug. 28; Oct. 28. Very cold; 2 frosts in Aug.

SPECIES TAKEN: Arctiidae: P. fuluginosa, FC, July 14, Noctuidae: *Cerastis fishii, S and FC, Apr.; *Polia lutra, S, June 8; RF, June 23; *Xylomiges alterans, FC, Apr. 18 - 22; RF, mature larvae, June 22; Orthosia alurina, FC, Apr.13-28; *Leucania inermis, RF, June 22-July 7; *L. ursula, ST, late May - mid-Oct.; L. pseudargyria, ST, RF, July; *L. linda, NB, ST, FC, May-Sept.; *L. juncicola, ST, Sept.28; NB, Oct. 16, FC, Oct. 30; Lithophane querquera, FC, Apr.18, May 5 (late!); L. hemina, FC, Apr.; Metaxaglaea viatica, ST, bait, Dec. mostly; *M. semitaria, NB, Oct. 16, bait; Epiglaea decliva, NB, Oct. 16, ST, Nov.-Dec.; RF, Oct. 28, bait; Adita chionanthi, RF, Aug. 22, 24; Harpaglaea sericea, RF, Oct. 28, bait; Xylotype capax, NB, Oct. 16, bait; S, Oct. 4, 15; *Apamea interoceanica, ST, FC, NB, RF, July; Papaipema artivorens, FC, Sep. 17, 29; P. astuta, FC, Aug. 21; P. baptisiae complex, FC, Sept.-Oct.; RF, reared ex larvae on Apocynum stems; Meropleon diversicolor, FC, Sept. 30; Magusa orbifera, FC, Sept.29, Oct.19 (rare stray); Agripiodes fallax, RF, July-Aug.; *Autographa octoscripta, RF, Aug. 8; Catocala (exceptionally bad year at ST; good at FC, 23 spp.; outstanding at RF, 29 spp.; good at SP, 26 spp.; 38 species for all areas) included second state record of C. miranda (RF, July 28); innubens, FC, Sept. 16; piatrix, ST, mid-Sept. early Oct., NB, Oct. 16; dejecta, RF, July-Aug.; obscura, SP, July-Oct., FC, Sept. 18- Oct.2; residua, SP, July - Oct., RF, Aug. 1-28; judith, RF, SP, FC, July-Sept.; serena, RF, SP, FC, July-Oct.; coccinata, RF, late July; blandula, RF, July; mira, ST, July 25, RF, July-Aug., SP, Aug.; praeclara, SO, July 23, FC, Aug. 21; connubialis pulverulenta, FC, July 14, SP, July, RF, July-Aug., SP, Aug.; praeclara, SO, July 23, FC, Aug. 21; connubialis pulverulenta, FC, July 14, SP, July, RF, July-Aug., SP, Aug.; praeclara, SO, July 23, FC, Aug. 21; connubialis pulverulenta, FC, July 14, SP, July, RF, July-Aug., SP, Aug.; praeclara, SO, July 23, FC, Aug. 21; connubialis pulverulenta, FC, July 14, SP, July, RF, July-Aug., SP, Aug.; praeclara, SP, July-Aug., SP, July-Aug. July 23, Aug. 3; gracilis, RF, Aug. 21; sordida, RF, July-Aug.; micronympha, RF; concumbens, FC, July 27; *Zale phaeocapna, ST, Apr. 19; *Z. helata, SP, ST, NB, May-June; *Z. squamularis, RF, July-Aug., NB, June 17 (bait); *Z. metatoides, NB, June 17, RF, June 21; Dyspyralis nigellus, 2nd State Record, RF, July; Cissusa spadix, ST, June 6; *Zanclognatha martha, RF, July 12-Aug. 3, NB, July 24; *Amolita roseola, RF, July-Aug.; *Oruza albocostaliata, RF, July-Aug.; Baileya doubledayi, ST, May 18 (first SE Pa. record). Notodontidae: Hyperaeschra georgica, Lophodonta ferruginea, Ellida caniplaga, Fentonia marthesia, Dicentria semirufescens, Gluphisia lintneri, and possible second state record of Cerura modesta from RF if determination is correct. Lymantriidae: P. dispar caused severe damage in scattered sections of the Poconos where white and chestnut oaks dominate and was found for the first time at FC, ST, and Gulf Mills (Montgomery Co.). Other captures: *Olene cinnamomea, RF, July; *Artace cribraria, NB, Oct. 16; Also Olene basiflava, atomaris, pini, and Tolype laricis. Geometridae: *Eupithecia herefordaria, ST, Apr.; *Lygris explanata, RF, July; *Itame inextricata, RF, June-July; *L. argillacearia, RF, June; *Semiothisa fissinotata, ST, RF, May-Aug.; *S. sexmaculata, ST, RF, May-Aug.; *S. transitaria, RF, July 11, NB, July 24; *S. bicolorata, ST, RF, NB, FC, May-Sept.; *Paraphia esther, RF, NB, June-July; *Tacparia zalissaria, RF, June; *Caripeta aretaria, NB, May 24 (most northern record); other good catches were second state records of Hesperumia sulphuraria and Semiothisa multilineata, and a May 21 capture of a male Palaeacrita vernata at FC. Sphingidae: L. coniferarum and bombycoides, RF, July; S. gordius, RF, June-July; S. eremitus, RF, July-Aug.; P. astylus, RF, July 26; P. modesta, NB, July 24; S. jamaicensis, NB, June 17 (recently very rare); and D. pholus, FC, May-Aug. Citheroniidae: C. sepulcralis, NB, June 17; E. imperialis, NB, July 24. Saturniidae: C. promethea and angulifera down at ST, but latter still common; good year at FC for luna, but promethea cocoons down; io and polyphemus good at NB, but others rare or absent; RF poor for Saturniidae, but luna, polyphemus, promethea and angulifera recorded; H. cecropia coming back in the Philadelphia suburbs and is present in highly urbanized areas. Butterflies: C. niphon and irus, NB, May 14; S. edwardsii, calanus falacer, liparops, and caryaevorus, RF, the last 3 sometimes in light traps, abundant; L. anthedon, RF, males abundant along one well-shaded trail, defending territories 3-6 P.M.; E. martialis, NB, May 14; T. lineola, RF, last one seen June 30; A. delaware, scarce at RF, partial to thistle; P. glaucus seen only once all summer, but P. troilus common in Aug.; many usual species rare or absent.

LIFE HISTORIES: Schweitzer reared the following: <u>Olene cinnamomea</u> on oak; <u>O. atomaris</u>, on oak, <u>Prunus</u> spp., <u>Rubus</u>, and <u>Rosa</u>; <u>Xylomiges alterans</u>, oak preferred and will eat blueberry and apple; <u>Himella intractata</u>, oak, apple, cherry, blueberry; <u>Orthosia garmani</u>, oak, cherry, apple, blueberry; and <u>Lithophane bethune</u>i, <u>2 mature larvae found in bark crevices of <u>Quercus velutina</u>, June 4, Springfield, Delaware Co., about 6 ft. above ground.</u>

<u>DELAWARE</u>: Rosche found a good colony of <u>C. irus</u> at Little Creek Refuge, Kent Co, June 6, in a field overgrown with <u>Baptisia</u>. (Note late date this year.) Rosche also found a colony of <u>L. thoe</u> at Prime Hook Nat'l. Wildlife Refuge, Sussex Co. apparently a range extension (previously taken by Shapiro at Delaware City and Odessa, New Castle Co.).

<u>MARYLAND</u>: A thorough report from Bryant is on file, and available for research. Weather much as other areas, cool and rainy, with mild fall with moth collecting through Dec. into Jan., 1972. Urbanization developing at alarming pace, especially around Baltimore and Columbia. <u>D. plexippus</u> migrations up, but no count made; <u>P. sennae</u> building up to abundance in Sept. Industrial melanism increasing, esp. in Geometridae <u>Melanolophia canadaria</u>, <u>Anavitrinella pampinaria</u>, and <u>Epimecis hortaria</u>. An odd record was P. cresphontes of the southern subspecies taken at Hancock, Washington Co., in July.

LIFE HISTORY: New host records: Catocala ultronia on Morus rubra; Euchlaena effecta on Berberis vulgaris.

GOOD COLLECTING SPOTS: For <u>Calephelis borealis</u> and <u>Speyeria aphrodite</u>: Stottlemyer Rd., Allegheny Co., mid-July. For L. thoe: vic. Salem & Vienna, Dorchester Co., in fields of Rumex, mid-Oct.

RARE OR CHOICE SPECIES: Pieris virginiensis, May; Garrett, Allegheny and Washington Counties (designated by G, A & W hereinafter). C. henrici and E. olympia, May (A&W). A. delaware, L. anthedon, Eustroma atrocolorata, Dysodia oculata (adults on Indian Hemp), all July 15 (A). Euchoeca albovittata, May 20 (G). From nr. Newport, Charles Co., Sept. 4: P. sennae eubule and Cirrhophanus triangulifer. From Holland Point, Anne Arundel Co., & from nr. Tomkinsville, Charles Co.: C. cecrops on Aug. 7. From Baltimore Co.: Lagoa crispata June 11, also Chlae. jasminiearum July 6 & 23, both vic. Loch Raven; Cindaphia bicoloralis vic. Baltimore Aug. 29 & Sept. 8; Nacophora quernaria June 11; first in 7 years; at bait: Zanclognatha lituralis and Pseudo. cymatophoroides June 10, Strenoloma lunilinea June 17 & July 4, Catocala ilia satanas Aug. 19.

NEW STATE RECORDS: (Adjudged so by Bryant; listed in full): Euthyatira pudens May 30, '70, Woodbine, Howard Co.; Syssaura olyzonaria Aug 7, '71, nr. Tomkinsville, Charles Co. Remainder all Baltimore Co.: Phragmatobia lineata June 30, '67, at Owings Mills; next 3 sp. from vic. Loch Raven, viz: Plusia balluca July 27, '70; Lacosoma chiridota June 21, '71; Artace punctistrigata June 28, '71. Remainder all vic. Baltimore: In 1970: Calledapteryx dryopterata Aug. 20; Euphyia multiferata May 21; Schinia thoreaui Aug. 1. In 1971: Bomolocha bijugalis on June 21 & Aug. 18; B. manalis on July 12 & Sept. 28; Magusa orbifera Sept. 28 & Oct. 6; Eustrotia musta June 24 & Sept. 3; Dercertis vitrea Aug. 12 & Aug. 20.

NEW COUNTY RECORDS: Scaryaevorus July 15, nr. Pierre (W). In 1969: Erebus odora vic. Baltimore Aug. 26. In 1970: vic. Catonsville, Baltimore Co.: ontario June 3 and A. clyton June 17. P. m-album was taken vic. Baltimore Aug. 13 (all 1971 captures unless noted otherwise).

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ZONE 8: THE FAR NORTH: ALASKA AND NORTHERN CANADA. Coordinator: Kenelm W. Philip. Contributors: J. Ebner (E), C. Ferris (F), K. Philip and collectors for the Alaska Lepidoptera Survey (A).

Note regarding Alaska Lepidoptera Survey: The ALS, with support from the Explorers Club, International Biological Program, U. of Alaska, and C. F. dos Passos, was able to expand appreciably. Ninety-seven collectors brought in 6200 specimens from approximately 195 localities in Alaska, Yukon Territory, and Northwest Territories. Only the highlights can be mentioned below, but a complete report covering butterflies (similar in format to the 1970 Annual Summary) will shortly be available from the Coordinator for those persons who have a real need for such detailed information.

NORTHWEST TERRITORIES: Range extensions: Nymphalis j-album from Baker Lake (E) and Smerinthus cerisyi from Fort Smith (A). Wyatt's previous records of Erynnis icelus and Incisalia eryphon from Fort Smith were confirmed (A).

BAKER LAKE, 1 July to 2 August (E). Species in order of decreasing abundance: Oeneis taygete/bore, Colias palaeno, Erebia rossii, Boloria eunomia, C. hecla, B. chariclea, B. improba, B. polaris, O. polixenes, C. boothii, O. melissa, E. fasciata, C. nastes, B. fring Eregstüng Ataska (Ceptacophera Sulvey) hale Acts, With Mother Parontian Prophera Sulvey hale Acts, With Mother Parontian Prophera Paro

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MEADE RIVER, 16-22 July (A). Species recorded: <u>Colias hecla</u>, <u>C. thula</u>, <u>C. palaeno</u>, <u>Lycaena phlaeas</u> <u>sspp.</u>, <u>Boloria napaea</u>, <u>B. frigga</u>, <u>B. improba</u>, <u>B. polaris</u>, <u>B. chariclea</u>, <u>Oeneis melissa</u>, <u>O. polixenes</u>, <u>Erebia fasciata</u>.

ITKILLIK RIVER, SE of Umiat, 5-24 July (A). Species recorded: Hesperia manitoba, Parnassius eversmanni, Colias hecla, C. thula, C. palaeno, C. nastes, C. gigantea, Lycaeides argyrognomon, Glaucopsyche lygdamus, Boloria napaea, B. frigga, B. improba, B. polaris, B. freija, B. chariclea, Coenonympha mixturata, Oeneis bore, O. melissa, O. polixenes, Erebia disa, E. rossii, E. fasciata, E. theano, E. youngi.

NORTH OF WALKER LAKE, near Arrigetch Peak, unspecified exact locality, 3000 feet (A). Species recorded: <u>Parnassius phoebus</u>. This is a confirmation of an earlier unpublished range extension for this species.

WISEMAN, 16 June to 1 July (A). Species recorded: <u>Hesperia manitoba</u>, <u>Erynnis persius</u>, <u>Papilio machaon</u>, <u>P. glaucus</u>, <u>Colias hecla</u>, <u>C. thula</u>, <u>C. gigantea</u>, <u>C. philodice</u>, <u>Pieris napi</u>, <u>Euchloe creusa</u>, <u>Lycaeides argyrognomon</u>, <u>Plebejus saepiolus</u>, <u>Everes amyntula</u>, <u>Glaucopsyche lygdamus</u>, <u>Nymphalis antiopa</u>, <u>Polygonia faunus</u>, <u>P. gracilis</u>, <u>Phyciodes campestris</u>, <u>Boloria frigga</u>, <u>B. freija</u>, <u>B. chariclea</u>, <u>Coenonympha mixturata</u>, <u>Oeneis bore</u>, O. jutta, <u>Erebia disa</u>, <u>E. discoidalis</u>.

HARRIS DOME VICINITY, Seward Peninsula, 1-2 July (A). Species recorded: Parnassius eversmanni, Papilio machaon, Pieris napi, Colias hecla, C. thula, C. palaeno, C. nastes, Euchloe creusa, Glaucopsyche lygdamus, Vacciniina optilete, Agriades aquilo, Boloria napaea, B. frigga, B. improba, B. polaris, B. freija, B. chariclea, B. eunomia, Coenonympha mixturata, Oeneis bore, O. melissa, O. polixenes, Erebia disa, E. rossii, E. fasciata, E. youngi, E. dabanensis. E. dabanensis, in contrast to E. youngi, is strictly restricted to rockslides and dry fellfields, both at Harris Dome and near Nome.

EAGLE SUMMIT, MURPHY DOME, FAIRBANKS and Vicinity, 9 May to 11 September (F, A). The usual species from this area (see previous Annual Summaries). Following the odd-year pattern, the following species were caught after being absent (except for <u>one</u> location) last year: <u>Hesperia manitoba</u>, <u>Boloria polaris</u>, <u>B. chariclea</u>, <u>Oeneis jutta</u>, <u>O. polixenes</u> (below treeline), <u>Erebia disa. Boloria distincta</u> seems also to fit the same pattern, since it turned up on Eagle Summit again, after a one-year lapse following its discovery.

EAGLE and Vicinity, 6-21 June (A). This locality has been essentially uncollected since the days of S. Hall Young and the other missionaries collecting for Holland in the period 1899-1916. Species recorded: Carterocephalus palaemon, Erynnis persius, Parnassius eversmanni, Papilio machaon, P. glaucus, Pieris napi, Colias hecla, C. palaeno, Glaucopsyche lygdamus, Vaccinilina optilete, Nymphalis antiopa, Polygonia faunus, Phyciodes campestris, Boloria polaris, B. freija, B. chariclea, Oeneis bore, O, jutta, O. polixenes, Erebia disa, E. discoidalis, E. epipsodea.

MILE 229 RICHARDSON HIGHWAY (near Black Rapids), 26 June (F). Species recorded: <u>Oeneis chryxus</u>. This is the first record of this species within Alaska since the ALS started, and for some time before. Another case of the "Don Eff's lawn syndrome".

PORT HEIDEN, ALASKA PENINSULA, 10-21 July (A). Species recorded: <u>Pieris napi</u>, <u>Oeneis polixenes</u>. This the farthest out the Alaska Peninsula that the ALS has received any species other than P. napi.

<u>Pieris napi</u> was also received from the following localities in southcentral and southeastern Alaska: Kodiak Island, Montague Island, Haines, Skagway, Glacier Bay, Prince of Wales Island, Dall Island (A).

Small batches of moths were received from four of the Aleutian Islands, St. George Island, and St. Lawrence Island. Two specimens of an undescribed species of Hepialid turned up on Adak Island, 400 miles west of any previous record for what is pre sumably the same species.

ZONE 9: THE NORTHERN NEOTROPICS. <u>Coordinator</u>: Eduardo C. Welling M. <u>Contributors:</u> Christopher J. Durden, Megan Durden, Walley Durden, David Mahler, Luís Benton Mateos and family, E. C. Welling M., D. M. Varner.

GENERAL WEATHER SUMMARY FOR 1971: Coverage of the whole area is impossible, but from areas visited some trends were noted. Noteworthy is the great drought, beginning during Sept. 1970. In the Yucatan peninsula, the drought continued up to June 2, rains breaking on that date and keeping up every day until mid-Oct. This was probably the best season in many years, rainfall being exceptionally heavy in western Yucatan more than anywhere else. The rest of the country was not so fortunate, the dought continuing into July in Chiapas, Oaxaca, and Tabasco and rainfall thereafter being moderate. Northers during the first five months were frequent, but dry. Conditions in Tamaulipas in late June were dryish, but the very last days of that month rainfall was abundant along the northern coast. During the last two months of the year, Gulf of Mexico and Carribean drainage areas received fair amounts of rain, the forests not losing their "rainy season look" even in Dec. Tremendous rainfall in southern Quintana Roo and British Honduras in Dec.

MÉXICO:

TAMAULIPAS: Welling saw few butterflies in eastern Tamaulipas during late part of June. The Durdens, Mahler and Bentons collected in tropical deciduous forest at 130 m. elev. through other forest types up to 750 m. elev. during Dec., collecting about 1,181 specimens. 100 species were taken that were also taken during 1970, while 67 were taken for the first time, and another 63 being completely absent in comparison to the previous year. Commoner in 1971 were Appias drusilla, Anteos maerula, Heliconius petiveranus, Agraulis moneta, Chlosyne janais, Chlorippe pavon, C. laure, Libytheana bachmanii, Hymenitis oto, Epiphele adrasta, Myscelia ethusa, Adelpha basiloides, Dynamine mylitta, etc. Hesperiidae, all Lycaenidae, Anthanassa, Eresia, and Didonis aganisa were all much scarcer. Forests seemed to be wetter in Dec. of 1971 than in 1970.

OAXACA: The Varners collected near Oaxaca, 1500 m. elev., from June to Aug. and caught <u>Celastrina argiolus</u>, <u>Achalarus</u> sp., <u>Chlosyne</u> spp., <u>Eurema mexicana</u>, <u>E. salome</u>, and <u>Callicore anna</u>, the latter being a stray from the wet northern parts of the state. Welling spent one month (Nov.) in the high cold country of southern Oaxaca at 2,400 m. elev. Cold, hurricane-force winds hampered collecting greatly there. A number of interesting species were taken in short series with a lot of climbing and looking for protected areas away from the winds. Several <u>Papilio multicaudata</u> were seen, only one taken. Interesting

Phyciodes, Chlosyne Hesperiidae, Satyridae, and a few other things taken. Local people remarked that insects were scarcer here than in other years. Late Oct. and early Dec. were spent in the dry interior valleys, with collecting conditions being good in the latter month; several species being commoner than usual were Nymphalis antiopa, Catasticta nimbice, Heliconius charithonius, Phyciodes spp., and Satyrids. Morpheis ehrenbergii was abundant, but nearly always torn, nicked, or worn.

YUCATÁN AND QUINTANA ROO: Collecting was very poor as in 1970, especially aggravated by the extreme drought during the first five months. Very little material was collected. Forest fires in northern Quintana Roo have just about destroyed any hopes for future collecting in classical collecting sites. Just about burned off the map was X-can, one of the classic localities. At X-can, a Caliosiasma lilina was taken; however many of the forest Satyridae, Hesperiidae, and Erycinidae have disappeared from this formerly very interesting region.

ZONE 10: SOUTH AMERICA. Coordinator: Thomas C. Emmel. Contributors: Keith S. Brown, Quimby F. Hess, Only two reports submitted this our first year of reporting. Entirely treating fauna at specific localities.

ECUADOR: Limoncocha, a Wycliffe Bible Translators' station in the rain forest of eastern Ecuador (accessible only by air, or boat down the River Napo), provided outstanding collecting for Brown. In five days (Jan. 29 - Feb. 2), he collected 35 species of Ithomiinae and 26 of Satyrinae. Emmel found collecting there equally excellent in Sept. 1969. Brown's ithomiine records were: Melinaea menophilus menophilus, M. mothone mothone, M. maeonis maeonis, Xanthodeis psidii ino, Forbestra equicola equicoloides, F. truncata juntana, F. olivencia (doubtfully distinct!), Mechanitis lysimnia elisa, M. isthmia eurydice, M. egaensis phasianita, M. mazaeus mazaeus (variable), M. messenoides (all 3 sspp.), Scada batesi, Ithomia amarilla, I. salapia, I. agnosia agnosia, Aena eurimedia eurimedia, 5 Olena spp., Hyposcada kezla ssp., Hyposcada sp., Dircenna xanthophane (?), Pteronymia sparsa, Cerotinia poecila, Thyndia confusa, Gelatophye mystica, Godyris zaraleta, Hypoteria sp., Psedoscada sp. near timna, Heterosais edessa nephele, Napeogenes pharo (?), N. corena, and Hypothyris fluonia ssp.

GUYANA: Hess collected at Bartica, Bartica Forest Reserve, and at Wineperu during 18 days in Feb. Among the 48 identified species were: Parides neophilus, Eurema agave, E. venusta, Leucidia brephos (common), Leucothyris aegle, Callitaera philis, Euptychia batesii thalessa, Pierella astyoche, P. iamia, P. lena, Heliconius flavescens, H. melpomene, Phyciodes liriope fragilis, Anartia amathea (surprisingly, "not common"), Catonephele acontius, C. orites, Nessaea obrinus, Adelpha cytherea, Marpesia peleus, Anaea morvus, Prepona meander, Morpho achilles amazonicus (common in stream valleys), M. deidamia (fairly common), M. hecuba (canopy fliers), M. menelaus (common on higher ground), Caligo (2 undetermined spp.), Opsiphanes quitena, Crema actoris meleagris, Diophthalma hyphea, Eurybia dardus, Helicopis eupido, Mesosemia croesus, Nymphidium azanoides, N. menalcus cachrus, and Stalachtis phaedusa exul.

CORRECTIONS:

Henry Hensel of Edmundston, New Brunswick, has asked to be taken off the list of dealers in Lepidoptera Specimens in the last NEWS (Dealers' Directory), as he is not a dealer and sells material only when he advertises.

The price for Claude Lemaire's Revision du genre Automeris Hübner . . . (1971) was incorrectly quoted in the past two issues of the NEWS as 5 francs. The correct price is 188 francs.

IMPORTANT ANNOUNCEMENTS:

The next edition of the NEWS, containing articles and notices, is in preparation early because this issue was almost taken up by the Summary. No. 4 will be the Membership List, prepared by Secretary Lee Miller; it should be in your hands before the Annual Meeting. Sorry I cannot get notices into this issue.

ANNUAL MEETING: If you plan to attend (June 22 - 26) the San Antonio, TEXAS, meeting, notify Roy O. Kendall to make

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ADDENDUM TO ANNUAL FIELD SEASON SUMMARY FOR ZONE 5

(too late to incorporate)

Contributors: D. K. Parshall and J. C. E. Riotte

OHIO: Parshall, collecting in scattered southern counties, recorded an enviable list of unique butterflies, including 17 species of Lycaenidae. His list included the following new county records (per correspondence with Carl Albrecht): Autochton cellus, 16 June, Lawrence Co.; Pyrgus centaureae wyandot, 18 April, Vinton Co. (probable STATE RECORD); Anthocaris midea, 1 May, Adams Co.; Harkenclenus titus, 25, 30 June, Vinton Co.; Satyrium liparops strigosus, 25 June, Vinton Co.; S. calanus falacer, 24, 25 June, Vinton Co.; S. edwardsii, 30 June, Vinton Co.; Callophrys henrici, 9 May, Vinton Co.; C. augustinus, 17 April, Vinton Co.; C. niphon, 9 May - 13 June, Vinton Co.; C. gryneus, 16 May, Butler Co.; Euristrymon ontario, 30 June, Vinton Co.; Panthiades m-album, 9 May, Vinton Co.; Calycopis cecrops, 13, 16 June, Vinton Co.; Strymon melinus humuli. 17 April - 16 June, Butler, Lawrence, Vinton Cos.; Erora laeta, 25 April, Highland Co. (second STATE RECORD); Feniseca tarquinius, 13 June, Vinton Co.; Everes comyntas, 15 May, Vinton Co.; Glaucopsyche lygdamus ssp. 9 May, Vinton Co.; Cargiolus pseudargiolus, 17, 25 May, Highland, Vinton Cos. Chlosyne nyctois, 12-20 June, Coshocton, Lawrence, Vinton Cos.; Euphydryas phaeton, 6 June, Vinton Co.; Lethe portlandia anthedon, 12-16 June, Lawrence, Vinton Cos.; Euptychia gemma, 15 May, Vinton Co. (probable STATE RECORD).

ONTARIO: Riotte reports a late season over the entire province; many moth species did not appear at lights as in previous years - probably due to the long and extremely dry winter. Butterflies, however, did appear in good numbers. New records included: Euphyes dukesi, Essex Co.; Atalopedes campestris, London: Erynnis brizo appeared more numerous in scattered localities in southern portion of province, while Peanos viator and E.dion ranges were extended northerly to Willowdale (Toronto), Chaffeys Locks and Perth Road.

FOODPLANT RECORDS: Symmerista leucitys reared on red oak (refused white oak); Darapsa pholus reared from one egg found on Vaccinium sp.; Metarrhantis indeclinata was seen ovipositing on Vaccinium sp., and successfully reared on this plant.

CONTRIBUTIONS FOR THE COMMEMORATIVE ISSUES

Many substantial contributions have been received to help fund publication of the Commemorative issues, a sizeable number from foreign members. If our domestic members respond as well as our foreign, sufficient funds will be available in no time. No doubt you have had good intentions but it has slipped your attention. We need your support now. Send your donations to: Stanley S. Nicolay, Treasurer, The Lepidopterists' Society, 1500 Wakefield Drive, Virginia Beach, Virginia 23455 USA.

The Publications Committee is now considering two separate volumes. One will include Society history, biographical sketches of past and current officers, special papers such as the Society Library, some little-known U.S. publications on Lepidoptera, and early attemps to form local Lepidopterists' societies. The second volume will be a consolidated species-author-subject index for the first 25 volumes of the News/Journal. It will include species in the Annual Season Summaries. If sufficient funds are raised, the data will be so recorded as to eliminate the need for back issues of the Summaries.

If you are interested in deluxe, cloth-bound volumes please let us know immediately. We can't quote the "profit free" price at this time, but it will be reasonable whether deluxe or plain.

<u>Travel funds</u> are also needed to bring several foreign, world famous lepidopterists to participate in the 25th Anniversary Program on 22-25 June. Send your contributions now. They are urgently needed. The thousands of manhours required to accomplish these projects are being donated; but we do need your financial support. Give now and you will always be glad you did.

COMMEMORATIVE ISSUES FINANCE COMMITTEE (Roy O. Kendall, Chairman, Sidney A. Hessel, Cyril F. dos Passos)

RESEARCH NOTICES:

Specimens of all subspecies of <u>Hemaris</u> <u>diffinis</u> (Sphingidae) needed for Monograph of the species. Contributions from any locality in the U. S. and Canada will be most appreciated. Scott N. Brown, 516 Campbell St., Royston, GA. 30662, U.S.A.

I am studying the genus Atrytonopsis (Hesperiidae) and wish to buy or exchange for specimens from eastern U.S. Bill Smith, 8 Parnassus Rd., Naval Weapons Sta., Charleston, S.C. 29408, U.S.A.

Information and specimens needed for a project on the distribution and flight times of Agrias claudia sardanapalus Bates. Please send any records or other data to: Stanley K. Dvorak, 1117 Madison Ave., San Diego, CALIF. 92116, U.S.A.

Correspondence wanted immediately with collectors interested in taking a collecting trip to southern Florida in mid-May. Must be willing to share expenses and driving. Day collecting and black-lighting. Jim Tuttle, 227 Theadore, Monroe, MICH. 48161, U.S.A.

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8 The Crofts, Kirkoudbright, SCOTLAND

Memoirs of the Lepidopterists' Society, Number 1 (Feb., 1964) A SYNONYMIC LIST OF THE NEARCTIC RHOPALOCERA, by C. F. dos Passos Price:

Society Members, paper covers, Addenda et Corrigenda (revisions of Melitaeinae and portions of Lycaenidae supplied separately), \$5; non-members, \$7.50. Hard-cover binding (revisions bound in): Members, \$8; non-members, \$10.

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 <u>Treasurer</u> the full dues for the current year (\$10, U.S.A.) together with full address and areas of interest in Lepidoptera. Remittances in dollars (U.S.A.) should be made payable to The Lepidopterists' Society. Individual members will receive the JOURNAL (published quarterly) and the NEWS (published bimonthly). Institutional memberships will receive only the JOURNAL. A biennial membership list will comprise one issue of the NEWS in even-numbered years. Back issues of the JOURNAL may be purchased from the TREASURER.

Information on membership may be obtained from the TREASURER, Col. Stanley S. Nicolay, 1500 Wakefield Drive, Virginia Beach, VA. 23455, U.S.A. Changes of address must be sent to him alone, and only when changes are permanent or very long-term.

Other information about the Society may be obtained from the SECRETARY, Dr. Lee D. Miller, Allyn Museum of Entomology, 712 Sarasota Bank Bldg., Sarasota, FLA. 33577, U.S.A.

Manuscripts for publication in the JOURNAL are to be sent to the Editor, Dr. Theodore D. Sargent, Zoology Dept., Univ. of Massachusetts, Amherst, MASS. 01002, U.S.A. See the inside back cover of a copy of the JOURNAL for editorial policies.

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