

of the Lepidopterists' Society

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SEASON'S SUMMARY, 1960

As in 1959, cutting of reports has been necessary, due to space limitations. All reports have been retained in their entirety, either by the Editor or by the Regional Coordinators, or have been returned to the contributors. On behalf of the Society and its membership, the Editor thanks the Coordinators and Contributors, without whom the SUMMARY would not have been possible.

ZONE I: CALIFORNIA, NEVADA, ARIZONA. Coordinator: F. T. Thorne. Contributors: D. Dirks, H. A. Freeman, S. Jewett, Jr., R. L. Langston, J. C. Montgomery, K. Roeber, O. E. Sette, O. Shields, F. T. Thorne, J. W. Tilden.

California: Rainfall deficient over most of state, from as early as February in the deserts, on through the season. Fall rains in November came too late to affect collecting in the greater part of the state.

Flight seasons seem to have been normal early in the year, becoming early, and very short, as the season advanced. Several periods of very unusual hot weather were reported. Collecting ranged from just average in the mountains, to far below average in more arid areas.

In the desert area of San Diego County, Dirks and Shields found Anthocharis cethura abundant, Pieris sisymbrii common, A. lanceolata, Philotes sonorensis just emerging at Scissors Crossing on March 12. Same place, March 12, Apodemia mormo abundant. At Jacumba, March 20-26, Euphydryas chalcedona in large numbers. Near Jacumba, Philotes speciosa was taken by several collectors in March and April. Here the food plant is Eriogonum reniforme.

Sette, Montgomery and Thorne found P. speciosa abundant in the Kramer Hills, Mohave Desert, April 9, and Plebejus emigdionis equally abundant at Victorville April 10. Tilden found the latter common at Victorville April 15, slightly worn, and in the Cajon Pass area, Mitoura siva and A. mormo common, A. lanceolata scarce, others worn.

At the China Lake area, Kern County, April 7, Langston found 14 species of moths at light, and at Argus and Trona, 12 species including Oncocnemis primula and Chalcopasta koebelei. He found atypical A. mormo in the Argus Mts., April 8, and both sexes of Chlosyne alma, together with C. cethura, E. creusa and worn Chlosyne neumogeni in the Panamint Mts. A fresh P. speciosa was taken west of Lone Pine April 9, plus the pyralid, Titanio proximalis.

Near Cajon Junction, San Bernardino Co., Dirks and Shields found Phaedrotes piasus fairly common on lupine, plus a single Megathymus yuccae martini, on 9-10 April. Jewett found Coenonympha tullia, Phyciodes campestris and Euphydryas editha in the Mono Basin near Lee Vining, June 16-18.

From the San Francisco area, Langston reports Autographa biloba Jan. 3, Galgula partita, Pyrausta subsequalis and Plutella maculipennis Jan. 8. Several other species of moths appeared shortly. Hibernating adults of Polygonia satyrus and Nymphalis antiopa found Feb. 21. Callophrys viridis taken on Twin Peaks, San Francisco, March 19; on March 20, Berkeley, Anthocharis sara and Euchloe ausonides, the first.

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Tilden found Strymon auretorum, californica, saepium and adenostomatis east of Mt. Hamilton, Santa Clara Co., June 13, in small numbers, conditions very dry. Lycaena xanthoides and several other species, worn.

In the Tioga Pass area, Shields found Colias behrii as early as July 5, below average numbers. Chlosyne malcomi, usually scarce, was out in large numbers July 5-20 above Tioga Pass. Speyeria egleis was abundant, Hesperia harpalus and Philotes battoides fairly common. Hesperia meriamae was taken at high elevations on Mt. Dana, Mammoth Peaks, and Gaylor Lakes area. Two colonies of Lycaena phlaeas hypophlaeas were found on "extremely treacherous terrain" on Mt. Dana. Parnassius phoebe behrii, Speyeria mormonia and Oeneis invalida were down in numbers. On the western slope at lower elevations collecting was poor all year. Tilden found the Tioga Pass area dried out, the season over, Labor Day.

In Laguna Mts., San Diego Co., Colias harfordii was exceptionally common in May and June. Hesperia harpalus and Plebejus icarioides were common, other species scarce. Lycaena xanthoides was found along a watercourse near Descanso, by Dirks and Shields, July 4, common.

Jewett found good moth collecting at the McArthur-Burney State Park, Shasta Co., June 21-24, taking three species of Drepanulatrix, two of Sericosema and four of Eupithecia. Tilden found collecting poor in the Deer Creek-Wilson Lake-Chester corner of Plumas and Tehama Cos., the only common species Lycaena editha. Speyeria spp. and Oeneis nevadensis were scarce, "blues" nearly absent. One bright spot was a single male of Mitoura johnsoni, June 26.

Interesting records for the state for 1960 were: Strymon columella March 19, near Sweetwater, indicating a spring brood (Dirks); Mitoura nelsoni on Juniper, Mt. Diablo, Contra Costa Co., May 7; Battus philenor unusually abundant April 3, Napa Co.; Euphydryas chalcedona near Banner, San Diego Co., (1) indicating a (partial ?) fall brood; and the presence in increasingly large numbers, of Agraulis vanillae in central California and the Bay Region, even as far north as Chico, Butte Co.

Arizona: Roever reports winter rainfall of 1959-1960 was nearly twice average. However, wind during January and February caused evaporation. Practically no rain fell from March to May (usual). During mid-June several ranges in southern Arizona got good rain. Summer rains began during last week of July but were little more than half average through September.

Spring fliers appeared one-two weeks later than in 1959. Collecting was good, late February-early March. Anthocharis pima had an excellent flight. In the mountains, Chlosyne thekla and fulvia, Eroria quaderna and Zestusa dorus were in numbers. Heliopetes domicella, of the lower canyons, was in poor numbers.

The unusual mid-June rain may have induced the excellent collecting in late June and early July. Eroria quaderna, Neophasia terlootii, Thorybes drusus and Atrytonopsis lunus, and Amblyscirtes spp., appeared in good numbers. Collecting for Hesperioidea was better than for Papilionoidea.

No migration of Krigonia lyside noted for 1960. The usual late flights of Libytheana bachmanii and Phoebis sennae were nearly lacking. Some of the more interesting takes were: Ascia monuste, Epargyreus exadeus, Chioides zilpa, Piruna microsticta, Amblyscirtes tolteca and Panoquina sylvicola.

Dirks found Eroria quaderna in Oak Creek Canyon, August 8-9. Roever, Sette and Thorne found Speyeria nokomis common, Euphydryas madgalena abundant and Hesperia harpalus present, in the White Mountains, Sept. 4-8. In the same locality on Sept. 11, Tilden encountered rain, found only E. madgalena and Phyciodes campestris in numbers. He found only Vanessa cardui in great numbers at Hannegan's Meadow, the high portions of the White Mountains being evidently passed.

In upper Madera Canyon, Tilden found Gyrocheilus patrobas, Euptychia pyracmon and Poanes taxiles common. In the lower canyons, Chlosyne lacinia, dymas and elada, Atrytonopsis ovinia, Pholisora ceos and Phoebis sennae were common, the latter worn. An enormous flight of L. bachmanii was in progress, tending to mask all other butterflies, all flying towards the southwest. In Sycamore Canyon and California Gulch, Santa Cruz Co., Sept. 14, Phoebis sennae and Eurema proterpia were abundant at water, all males, indicating the flight was just beginning. A great number of L. bachmanii and Danaus gilippus were present, moving southwards. At California Gulch, Chlosyne dymas and

elada swarmed. General collecting was poor; few skippers were seen.

H. A. Freeman found five larvae of Agathymus polingi in Agave schottii at an elevation of 4250 ft. on Mt. Lemmon Road out of Tucson, July 5. He found Battus philenor, Eurema mexicana, Danaus gilippus, Euptychia rubricata, Agraulis vanillae, Adelpha bredowii, Strymon leda, Epargyreus clarus, Autochton cellus, Thorybes pylades, Erynnis tristis, Oarisma edwardsii, Poanes taxiles, Amblyscirtes exoteria, aenus and cassus, in numbers. Less common were Papilio polyxenes, and cresphontes, Eurema proterpia, Neophasia terlootii, Euptychia pyracmon, E. dorothea, G. patrobas, Phyciodes picta, Apodemia mormo, A. palmeri, Emesis zela, Hypaurotis crysalus, Atlides halesus, Strymon melinus, Mitoura siva, Erona quaderna, Thorybes drusus, Cogia hippalus, Pyrgus communis, Systasea evansi, Pholisora ceos, Erynnis clitus, E. funeralis, Atolopedes campestris, Atrytonopsis lunus and Zestusa dorus. The editor gives this imposing list in its entirety with the comment that he never was so fortunate when collecting in the same area! It is evident that collecting was excellent in at least selected spots in Arizona in 1960.

At 5500 ft. on Mt. Lemmon Road, July 7, Agathymus larvae were again collected, and at 7000 ft., Callophrys apama, Erynnis clitus and some of previous species. Collecting was very similar in Madera Canyon, July 8-9. Diligent search for pupae of Megathymus ursus disclosed some old tents but no living larvae.

In the Chiricahua Mts., between the Southwest Research Station and Onion Saddle, Freeman took E. multicaudatus, A. bredowii, E. zela, M. siva, E. quaderna, Pyrrhopyge araxes, Pholisora ceos, E. clitus, P. taxiles, A. lunus, Amblyscirtes fimbriata, exoteria, aenus and cassus. on July 10. On July 11, Paradise, Onion Saddle, and Pinery Canyon were covered, with similar species except for one Lephilisca nemesis and three Erynnis scudderii at Onion Saddle. Again, Megathymus ursus was not found. Freeman says he has never seen Amblyscirtes so numerous as he found them on this trip, especially in Madera Canyon on July 8 and 9.

ZONE II: PACIFIC NORTHWEST - OREGON, WASHINGTON, IDAHO, MONTANA, BRITISH COLUMBIA. Coordinator: John C. Hopfinger. Contributors: W. C. Cook, E. J. Dornfeld, R. Guppy, Emily Hendriksen, J. C. Hopfinger, S. G. Jewett, Jr., M. G. Kimura, J. Manning, R. E. Miller, E. J. Newcomer and R. E. Woodley.

British Columbia: Guppy reports that winter was normal until February, when nights were too cold for moths. April, May and June were cold and wet, retarding early butterflies. Summer was normal, the fall to October warm and dry. Lycaenidae were scarcer than for many years; Hesperidae were less affected. Glaucopsyche lygdamus, flying from April to July and seemingly two-brooded, was common in April, scarce later. There seems to be a trend for butterflies to encroach on the higher elevations. On Mt. Arrowsmith at 4500-5000 ft., July 26, six Anthocharis sara were taken where only one had ever been seen before. Parnassius clodius also is building up at the same place. Also found were Lycaena helloides and Papilio eurymedon, usually taken below 1500 ft. Plebejus icarioides and Lycaeides melissa, once common on Mt. Arrowsmith, were not taken in 1960. Oeneis nevadensis had a good year. Moths were good, though no rarities were taken. Ichthyura apicalis, Nadata gibbosa, Dicentra semirufescens, Habrosyne scripta, Epinaoptera americana and Pseudothyatira cymatophoroides, not taken for several years, were found in small numbers. Malacosoma pluvialis has been building up for some time.

Montana: No Reports. Idaho: Manning found conditions about normal, a bit dry at low elevations, good above 6000 ft. No large emergences except Nymphalis californica, which was abundant.

Washington: Hopfinger found the season cold and wet, with a hard freeze in May, reducing adult Lepidoptera. Oeneis nevadensis came out on its two year cycle but in reduced numbers. Speyeria, Papilio and the Lycaenidae were very scarce. Only N. californica showed in great numbers. Cattle and sheep are destroying some of the best collecting grounds. Emily Hendriksen found the season at Sunnyside very poor. Papilio indra and oregonia were few. Almost no Euphydryas or Speyeria. Woodley found collecting fair near Chelan, Chelan Co., including Cercyonis pegala, Coenonympha tullia, Pieris beckerii and occidentalis, and Plebejus acmon, July 20, in an apple orchard. At Salmon Meadows, Okanogan Co., he found Oeneis chryxus, Erebia vidleri, Speyeria mormonia and zerene,

Boloria titania, E. colonia, N. californica and milberti, Colias eurytheme, Lycaena mariposa, Lycaeides argyrognomon and Plebejus icarioides. Near Conconully, July 22, he took some of these same species plus Colias edwardsii.

Jewett found Speyeria scarce on Mt. Adams, Yakima Co., in contrast to abundance in 1959. On August 12-13 he took S. callippe, mormonia, hydaspes and zerene. L. argyrognomon was fresh and common.

Kimura, in the Seattle-Spokane area, found P. clodius, Papilio zelicaon and rutulus, Limenitis lorquini, Euphydryas sp. and Cercyonis pegala on July 2-24. Newcomer, Yakima, found Lycaenidae including Strymon sylvinus, Callipsyche behrii, Lycaena heteronea and rubidus, and most of the Blues, among the commonest Lepidoptera in 1960. Speyeria were about as usual. Boloria titania was common at 5500 ft. in September, along with Polygonia faunus, but Nymphalis and Limenitis were scarce. Strymon titus was taken for the first time in Yakima Co., and Mitoura spinetorum was more common than usual. Helipetes ericetorum was more common than usual, ovipositing on bush mallow. Polites sabuleti was common on lawns in Yakima in late August, as usual.

Cook reports the best year for phalaenids within memory. Usual seasonal take for the UV trap is 6000-8000 per season. This year 19,000 were taken, average 105 moths per night of operation. Next best year was 1955 with 15,000 moths, average 90 per night. Many species were more abundant than usual in 1960. One hundred forty-one species have been identified; several remain undetermined. Usual number of species, 100-120. Cook cites this as evidence that insecticides and UV light do not reduce populations of rare species. A very interesting feature was the capture of 1653 specimens of Rhynchagrotis exsertistigma. Usual number, about 100 per season, but in 1959, 400 were taken. This species seems to aestivate as an adult (as do Chorizagrotis auxiliaris and Spaelotis havilae), fall specimens often being worn. In mid-September near Pasco, 3300 moths were taken at a portable UV trap in 4 hours. Over 1400 of these were S. havilae, coming out aestivation. Two reports from travelers indicate heavy flights of moths westerly, apparently a heavy movement of S. havilae.

Miller reports UV collecting at Fayton, Columbia Co., much heavier than in 1959, especially in early season. One hundred seventy-two species were recorded. Ten species account for 67% of the total. Camptochila lubricalis, Euxoa redimacula, Scotogramma yakima, and Luperina innotata were taken for the first time at this station. Acronicta minella and Euxoa silens were taken for the second time since 1955.

Oregon: The season was cold, wet and retarded in 1960 in the spring but warm and more normal later. Dornfeld, in the Corvallis area, Benton Co., and Woodley, found Papilio zelicaon, rutulus and eurymedon, Coenonympha tullia, Boloria epithore, Euphydryas editha, Phyciodes mylitta, Polygonia satyrus, rusticus and silenus, Pieris napi, Anthocharis sara, Incisalia iroides, Everes comyntas, Glaucopsyche lygdamus, Celastrina argiolus, Erynnis propertius and Pyrgus ruralis in April and early May. In June, Parnassius clodius, E. colon, P. campestris, Limenitis lorquini and Atrytone vestris appeared. In the Central Cascades, Lane and Linn Cos., they found most of the previous species plus Oeneis nevadensis, Chlosyne palla and hoffmanii, Polites sonora, and Erynnis persius. Woodley took also, Mitoura johnsoni and nelsoni, Plebejus saepiolus and icarioides, at Santiam Pass in June and on July 4 and 9, added Lycaena nivalis and mariposa, and Lycaeides argyrognomon. On August 6, Strymon sylvinus and Ochlodes sylvanoides were taken in the same area.

Gilchrist, Klamath Co., yielded Mitoura spinetorum, M. nelsoni, Lycaena helloides, Incisalia eryphon, L. cupreus, Philotes battoides, Thorybes mexicana, Pyrgus ruralis and communis, Carterocephalus palaemon, Hesperia juba and Polites sonora, in addition to several of the above. Later season collecting was also good. Thirteen miles east of Government Camp, Woodley took several species including very abundant Habrodais grunus. Dornfeld took one Plebejus shasta at Gilchrist, the first recorded there. In general, collecting was good in Benton, Linn & Lane Cos.

Dornfeld found a few Erebia epipsodea in mid-June in the Ochoco Mts., Crook Co., an area highly productive in July, Dornfeld and Woodley getting Colias alexandra, C. occidentalis (?), Pieris beckerii, P. occidentalis, C. tullia, Speyeria zerene, atlantis, hydaspes, mormonia and egleis, Lycaeides melissa and others. He found the Steens Mts.,

Harney Co., excellent collecting in mid-summer. Among species found were C. alexandra, P. occidentalis, C. tullia, Cercyonis silvestris, and L. rubidus at Frenchglen, all in good numbers. Near Fish Lake, at 7400 ft., were Speyeria zerene and mormonia, Nymphalis californica and C. oeta.

Jewett found poor butterfly collecting in the Portland area all season, but moths at light were good. By March 19, several species were taken including Orthosia hibisci, Xylomiges cognata, perlubens and simplex, and several geometers. On March 20, he took Stamnodes topazata, Enchoria lacteata and Mesoleuca graulata. By April 9, on to the end of April, he took Xystrota rubromarginaria, Mesothea viridipennata, Bapta semiclarata, Annaphila decia and Euclidina cuspeida. At Madras, Jefferson Co., the night of May 5 yielded five species of Semiothisa and a single specimen of Chesiadodes simularia, rare so far north. Jewett and Baker found good collecting in the Pueblo and Trout Mts. of southeastern Oregon on May 30, with good series of Chlosyne acasta, Euphydryas anicia and Philotes battoides. Oregon and parts of Washington seemed to have had a fair year after a cold late start, but certain areas were better for moths than for butterflies.

ZONE III: ROCKY MOUNTAIN AREA. Alberta, Wyoming, Utah, Colorado, New Mexico.

Coordinator: Don Eff. Contributors: D. Eff, H. A. Freeman, J. Scott, L. Miller, D. Dirks, and B. Pyle.

Very few reports were received, especially from the northern parts. Correspondence by letter was used to supplement the information. The collecting conditions in the Rocky Mountains are likely to be treacherous due to rapid weather changes. But the picture this year indicates more cloudiness and threatening weather than usual. Moisture seemed about normal with the season slightly advanced.

Alberta: R. L. Anderson, in correspondence, noted poor weather. Erebia discoidalis was common. Oeneis alberta was abundant for the second year in a row. Oeneis chryxus was common for the first time (this species was found in larger than usual numbers throughout the Rocky Mountains in 1960). At Nordegg, a noted collecting area, he took Erebia disa in some numbers.

Montana: No reports. Wyoming: John Downey found his objective, Plebejus icarioides, plentiful in the Medicine Bow and Sierra Madre Mts. Eff in the vicinity of Haskins Creek Campground, Sierra Madre Mts., Carbon Co., on July 9, took a melanic aberration of Speyeria hydaspe. He also took S. edwardsii, atlantis, callippe, zerene, egleis and mormonia. Others taken include Colias scudderii, Lycaena nivalis, Agriades glandon, Plebejus saepiolus, Pieris napi, P. occidentalis, Parnassius phoebe, Boloria helena, Papilio zelicaon, Euphydryas anicia, and O. chryxus.

Utah: Dirks has located a small colony of Speyeria nokomis in the vicinity of Glendale. Checking the colony this year, he saw eight individuals. In 1957 he sampled the population and most specimens seemed closest to S. n. apacheana from California, but one female was a true nokomis.

Colorado: Collecting seemed about normal, but the season slightly advanced. Pyle found Alypia octomaculata and Amphion nesus plentiful at Aurora. He found good general moth collecting both at light and by sugaring, but Catocala proved scarce, only one taken during the season. Eff, at Boulder, likewise found no Catocala. Pyle reports Lycaena mariposa from Ft. Collins, an outstanding record, probably the first authentic one for the state. Of even more interest, he found both L. editha and L. mariposa fairly common there August 7. L. editha was found in numbers in several localities this year. Prior to 1960, Eff and C. L. Remington had the only state records for this species. Eff found it common in early July north of Steamboat Springs in Routt Co., between Clark and Seedhouse. Scott found Euptychia dorothea in Clear Creek Co. August 6. There are but two previous records of this species for Northern Colorado. Pyle took a gynandromorph of Colias alexandra with three male wings and one female wing, and also took a rare but constant stray, Phoebis sennae. At the Colorado National Monument, Eff took a series of Chlosyne acasta. This species is not included in "Colorado Butterflies", but Dr. Hugo Rodeck, University of Colorado Museum, has taken it at the same locality and at Great Sand Dunes Park in Alamosa Co. Eff, at Colorado National Monument, saw one Attilides halesus, and at Black Ridge Breaks captured two specimens of the very rare Papilio indra minori. Here

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he also took several Euchloe creusa, previously recorded only from southern Colorado. In the Mesa Co. area in May, Eff found a light population of Euphydryas anicia abundant. In August on the Grand Mesa Dirks found most species worn.

P. S. Remington, C. L. Remington and Jeanne Remington, and Eff, in northwestern Colorado, found S. cybele fairly common, S. egleis scarcer.

In general, most alpine and subalpine species were present in normal numbers, but Pyle and Eff found Chlosyne damoetas in larger than usual numbers at Copper Lake, six miles above Gothic. Oeneis taygete did not have a good year, but in the South Park area, O. alberta was above average. Euphydryas anicia was scarce and Hesperia manitoba was missing entirely. In the foothills the early species were present in nearly normal numbers. Of the summer species, Hypaurotis crysalus was almost absent (abundant two years ago). Atalopedes campestris was much more than usually common in the fall. Dirks found Hesperia harpalus fresh and plentiful along the Gunnison River. No reports from the south and southwest of the state nor from the plains areas, localities where collecting should produce excellent records.

New Mexico: Miller and Eff tried separately for Sandia mcfarlandi in the Sandia Mts. in May. Eff found two worn specimens on May 12, and Miller failed to find it on May 25. (Ehrlich, Stallings and Turner had found it common in the Sandia Mts. in 1959). However, on May 29, Miller found it common on Nolina near Cuervo. Freeman found Megathymus violae more than normally common and A. mariae in normal numbers, near Carlsbad, in the pupal stage. In July, near Lordsburg he found larvae of Agathymus aryxna in large numbers in Agave palmeri. He found Chlosyne gorgone plentiful and Phyciodes picta common in August near Tucumcari. At Red River in Taos Co., at almost 8900 ft., in late August, he found good collecting: Speyeria aphrodite, callippe, mormonia and zerene, Polygonia hylas, and satyrus, Limenitis weidemeyerii, Apodemia mormo, Hypaurotis crysalus, Strymon falacer, Lycaena arota and cupreus, Piruna pirus, Battus philenor and several species of Hesperia. On Sept. 11, Miller collected in the Black Mts. near Mescalero, finding only very common species. Next day, at Sitting Bull Falls, Guadalupe Mts., many interesting species were present: Minois meadi, Microtia dymas, Chlosyne definita, Phyciodes texana, Anaea andria, Limenitis astyanax, Echinargus isolus, Strymon melinus, Eurema mexicana and Nicippe, Papilio plyxenes, Pyrgus communis, Pholisora ceos, Systasea pulverulenta, Copaeodes aurantiaca, Hesperia woodgatei and Atalopedes campestris.

ZONE IV: GREAT PLAINS - Canada to Texas in the Plains region. Coordinator: H. A. Freeman. Contributors: H. A. Freeman, W. H. Howe, Mrs. E. J. Kelso, R. Kendall, J. E. Lipes, L. D. Miller, and K. Roever.

The entire area had rainfall above normal. In the central section, especially in Kansas, deep snow into mid-March caused the collecting season to be a month later than normal. Texas season was nearly normal except that cold weather in March retarded collecting by two weeks.

Howe, Ottawa, Kansas, found collecting unusually good all season, especially Lycaenidae. He found Strymon m-album, ontario, edwardsii (in "swarms"), titus, liparops and falacer, and Mitoura gryneus. Hesperiidids did well, especially spring species. He took Wallengrenia otho, Atrytone arogos and logan, Atalopedes campestris, Problema byssus, Polites verna, Erynnis baptisiae, and E. martialis. Papilio glaucus and marcellus were scarce for the second year; P. cresphontes and Battus philenor were very abundant. Other plentiful species were Asterocampa clyton and celtis. Species usually seen in large number, that were not common in 1960 were Phoebis sennae, Zerene cesonia, Vanessa cardui and Danaus plexippus. A good moth catch was a fresh Erinnyis ello, August 6, at Petunia blossoms. Howe notes the emergence of a Bphinx vancouveriensis that spent two years in the pupal stage.

Lipes collected between 25 and 30 specimens of Phocides lilea in the lower Rio Grande Valley. Another very fine record was the capture of several specimens of Lymnax pyxé, the first United States records for this species. Dryas julia and Myscelia ethusa were out in numbers. During November he took four fresh Thysania zenobia, and in October found several pupae of Erebus odora, which later emerged.

Freeman collected from Mission to Rio Grande City, last week in December. Near Sullivan City he took several larvae of Megathymus Yuccae wilsonorum in Yucca treculiana.

He also found Thecla bazochii, Strymon clytie, columella, beon and one specimen of S. rufofusca. The temperature was right for collecting but a light drizzle fell steadily.

Roever reports two trips to Texas. The first, with W. Patterson, was in April. At Pine Springs, Guadalupe Mts., they took Incisalia henrici, Erynnis telemachus and Zestusa dorus, in wind and overcast. One and one-half miles east of Nickle were taken Eurema nicippe, Z. cesonia, P. multicaudatus, M. siya, Celotes nessus, Pholisora ceos, Erinnis burgessi, Coenodes aurantiaca and Amblyscirtes eos. April 17, 13 miles west of Alpine on Highway 118, they took Euptychia rubricata, Phyciodes phaon, Battus philenor, Danaus plexippus, Atrytonopsis ovinia, A. pittacus, Amblyscirtes aenus, nysa, texana and flonia, plus some of the preceding, and ten miles west of Ft. Davis, same day, similar species. Later, same day, summit of Mt. Locke, Stinga morrisoni and Vanessa car- were added. The second trip, with L. D. Miller, in September, on Sept. 13, Glass Mt., near Marathon, pupae of Agathymus mc Alpinei were found in numbers in Agave, and the following butterflies: Microtia gymas, Chlosyne definita and elada, Phyciodes picta, phaon and vesta, A. eos, Hesperia woodgatei and pahaska, Yvretta carus, Pyrceus scripture (new Texas record), Pholisora catullus and Precis orithya. Lephellisca nemesis and Ancyloxypha arene were added 5 miles south of Marathon. At Big Bend National Park, Chisos Mts., Sept. 14, collecting was poor in spite of summer rains. Adelpha bredowii and E. rubricata were taken. Pupae of Agathymus chisosensis were found in Agave scabra. Near Alpine, Sept. 15, were taken Apodemia mormo, L. astyanax and archippus, Lephellisca nemesis, E. pyraccmon, Atlixes halesus, Cogia hippalus, A. aenus, nysa, texana and eos, Atrytonopsis ovinia and Lerema accius. Same day, near Locke, Agathymus florenceae pupae were taken in Agave necmexicana, plus adults of P. phaon, E. tristis and meridianus, and Carisma edwardsi. In the Hueco Mts., pupae of Agathymus mariae and judithae were found.

Kendall took a specimen of Phocides lilea in the Rio Grande Valley. He is working on the life histories of several species and will have results soon. Mrs. Kelso also took P. lilea in her yard at Pharr in the fall, first record for her area. Central Texas was unfavorable to March, but Freeman found Incisalia henrici at Walnut Springs and J. hadros in the Tyler area, in small numbers, as well as Megathymus yuccae pupae. The Dallas area was poor, favorable habitats being destroyed, but a female Papilio lycophron and a male P. thoas were taken, in the fall. Freeman, the Kendalls and Reinthal had good results in the Davis Mts., June 13, finding Strymon polingi and alcestis, Mitoura gryneus, Carisma edwardsi, Amblyscirtes texana, phylace, aenus, and nysa, Atrytonopsis ovinia and vierecki, Pholisora ceos, Erynnis funeralis, meridianus and tristis, Celotes nessus and Battus philenor. Freeman took one Amblyscirtes cassus, a new Texas record. He also found a colony of Agathymus mariae 14 miles east of Kent.

Freeman, near New Braunfels and San Marus during the last week in July found Nastra julia, Systasea pulverulenta and Lerema accius very common. August 8, in the Diablo Mts., previously uncollected, larvae of two species of Agathymus were found. Butterflies were scarce, only Agraulis vanillae seen. The Eagle Mts. were similarly poor Aug. 9, a specimen of Mitoura siya seen. In the Davis Mts., August 10, larvae of Agathymus florenceae were taken, plus adults of P. multicaudatus, Amblyscirtes phylace, nereus and texana, O. edwardsi, Hesperia pahaska, and E. tristis. August 11, Chinati Mts., weather unfavorable, but one Apodemia palmeri taken (new Texas record); Atrytonopsis ovinia swarmed. August 13-15, larvae of Agathymus mariae and estellae were collected between Sanderson and Del Rio.

The few reports from Zone 4 indicate good collecting in 1960, but except for Texas, coverage in the area was very incomplete.

ZONE V: CENTRAL REGION - Missouri to West Virginia, North to Ontario. Coordinator: E. G. Voss. Contributors: R. T. Arbogast, C. V. Covell, Jr., D. J. Dunlop, C. J. Durden, W. Edmonds, R. Heitzman, R. Holzman, L. D. Miller, M. C. Nielson, R. C. Robertson and W. E. Sieker.

Collectors report the 1960 season as good or better than 1959, at least for butterflies, Sphingidae, Saturniidae and Catocala. Increased use of UV may account for the improved situation in moth collecting.

Missouri: Heitzman reports the best season in 20 years, but with a two to three week late start, and a late summer dry spell. However, Incisalia henrici, Strymon ontario, S. m-album, S. cecrops, Graphium marcellus, Erynnis boratius, and Amblyscirtes nysa

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showed marked decrease. Species up in numbers were: S. falacer, S. liparops, Licytheana bachmanii, Papilio cresphontes, Asterocampa celtis, A. clyton, Limentis archippus, L. astyanax, Polites verna, Erynnis martialis, and E. baptisiae. Problema byssus was numerous on the very local virgin prairie, and Lerodea l'herminieri was taken (Jackson Co.) for the first time. UV collecting was good; all mothing was better than expected. Heitzman and Howe found P. troilus just emerging in the Missouri Ozarks in mid-July and M. gryneus, Battus philenor and Zerene cesonia common. Ten species of sphingids were taken in the evenings on flowers of Saponaria.

Kentucky: Miller reports Incisalia henrici turneri (det. Clench) in mid-April in Webster Co., also Anaea andria, Strymon melinus and Erynnis juvenalis, Covell, in August, found Pieris protodice and Danaus plexippus widespread and common.

Illinois: In Cook Co., Robertson found Vanessa virginiana abundant April to June, V. atalanta abundant May to August. June on, P. glaucus, Celastrina argiolus, Everes comyntas and L. archippus were numerous. Pieris rapae scarce early, increasing in the fall, as did Colias pholodice and eurytheme. Limenitis astyanax quite rare. Amphion nesus plentiful in July. D. plexippus migration observed in early September. Also, Arbogast observed such a migration east of Gridley near sunset Sept. 10, the individuals settling in an Osage Orange grove.

Iowa: Miller, Johnson and Royer found hibernating species, except for Polygonia comma, to be less abundant than usual. Celastrina argiolus was common by last of April. By May, the season had caught up after a cold slow start, the variety greater than usual. In May, at Waubonsie State Park, a Strymon m-album and a worn female L. henrici turneri (det. Clench). Lycaena dione and L. thoe more common than usual, in June. S. falacer scarcer. S. edwardsi and S. titus taken for first time in two years. A perfect female S. caryaevorus (det. Clench) taken June 27, Waubonsie Park. July 10, Ledges Park, a perfect male Speyeria aphrodite, plus series of S. falacer, Wallengrenia otho, Atrytone arogos and A. logan, July 22, Pilot Knob State Park, good collecting including Lethe eurydice, Peanes viator and Atrytone dion, all new to Iowa. L. thoe commoner than usual in August. Lethe portlandia commonest in ten years, Cercyonis pegala strangely uncommon. Small colonies of Pholisora hayhurstii, Helephila phylaeus and Poanes zabulon survived the severe winter near Des Moines. A "phenomenal" hatch of Polygonia comma occurred in August; P. progne was more common than usual.

Minnesota: Miller took many Coenonympha tullia June 15, Aitken Co.

Wisconsin: Robertson, in Door Co. in August, found Lepidoptera below usual numbers, except for Speyeria cybele, aphrodite and atlantis. Sieker, however, over more of the state, reports a better season than in 1959, but Speyeria below usual numbers. In Door Co., argynnids usually outnumber all other butterflies in August. Both agree on abundance of P. polyxenes, Nymphalis milberti, and L. archippus. Robertson notes V. atalanta and virginiana rare compared to Chicago area, Illinois. Euchloe olympia and P. cresphontes in some numbers; Colias philodice and C. eurytheme in largest numbers ever seen; D. plexippus very scarce, including larvae. L. astyanax common, N. antiopa quite rare, Satyridae and Strymon spp. about usual. Mitoura gryneus rediscovered after 20 years.

Sieker, Brown and Smith had a fine season with moths, both at UV and with sugar. Sphingids, saturniids (except Automeris io), Catocala and arctiids were unusually common. Estigmene acraea and Diacrisia virginica were by hundreds per night. Noctuids other than Catocala were less common than in 1959; geometrids were abundant. Catocalas abundant, especially ilia, cerogama, relecta and serena. Cara was rare, again. An arctiid of note was Hyphoraia parthenos in Langlade Co.

Michigan: Holzman found butterfly collecting poor in Lapeer and Livingston Cos., but Papilio crephontes was common in Lapeer Co., with larvae on prickly-ash, and larvae of P. troilus on sassafrass in Livingston Co. Sept. 10. Mothing started two weeks later than in 1959, but collecting at UV was good for sphingids and Catocala. Paonia excaecata and P. myops and S. jamaicensis were very common. Sphinx drupiferarum, S. luscitiosa and S. eremitus, not taken in 1959, were found. Lapara bombycoides was a new record for the area. Catocala vidua, insolabilis, habilis and cara were common.

Nielson found an average season for butterflies, exceptional for moths - possibly due to first use of UV in the area. He took 86 spp. of butterflies and many

moths, in 9 counties. First take was Brephos infans April 14 in Arenac Co. May 4 Polygonia styx was found on a dead dog. In Montcalm County, mid-May, Incisalia irus and henrici in fair numbers. One I. augustinus; I. nippon absent. Also, Strymon melinus and Glaucopsyche lygdamus, the latter common in open oak scrub. August 1, in Otsego Co., Hesperia leonardus and Vanessa virginiensis common. Notable UV records include Arctia caia and Eacles imperialis. Thirteen spp. of Catocala, mostly at bait, were taken in Otsego Co., in about usual numbers, with C. blandula increased. In Lenawee Co., Southeastern Michigan, five Catocala serena in one night, as against one in preceding ten years. Other good records: C. subnata, Phlegethontius sexta, Ceratonia catalpae and one late male Actias luna.

In a bog north of Manistique, Nielsen and others found Boloria selene reduced, Anarta cordigera more common, Incisalia augustinus abundant, Autographa microgramma fewer than 1959. Bait and UV brought many moths in the bog. Klots found two Oeneis jutta there on June 11-12. Eubaphe lamae was again common in early August. Nielson took several male Thymelicus lineola in Otsego Co., 150 miles north of previous Michigan records. He and Newman found Hesperia ottoe at cactus blossoms in Newaygo Co. in July and a series of Atrytone bimacula in a nearby marsh.

Ontario: Several fine reports. Holzman took two Strymon m-album at Point Pelee Park, worn as if strays, and found Asterocampa celtis, Libytheana bachmanii, Papilio cresphontes, Everes comyntas, Celastrina argiolus, Chlosyne nycteis, Phyciodes batesii and P. tharos very common. Dunlop reports good collecting during May and June in Algonquin Provincial Park, with two female Erora laeta on May 20 and June 9, the latter worn, both near beech woods. Also, July 11, I. lineola, most northern record for this part of Ontario, and Polygonia comma. Speyeria nearly absent after abundance in 1959. Also reduced in numbers: Pieris napi, Polites mystic and Colias interior. I. nippon, Erynnis juvenalis and Amblyscirtes vialis abundant. Oeneis macounii and H. leonardus absent this year.

Vicinity of Toronto, Edmonds reports a cold spring as in 1959 with March the coldest since 1912; July to November fine. First butterfly Pieris rapae, May 2. Increased were Polites mystic, S. acadica, V. cardui and especially P. polyxenes. Decreased: Danaus plexippus (worst year in memory) and Chlosyne nycteis. Colias eurytheme and philodice scarce in early season, common later. Bait for Catocala successful, C. cerogama very common. I. lineola fairly common July 2. Construction is rapidly destroying habitats, especially marshes and meadows; many colonies of Lycaena thoe completely wiped out.

Durden in northwestern Ontario (53-52° N, 92-94° W) found first specimens June 5. Boloria freija past prime; I. augustinus passing, C. argiolus peaking, Also I. nippon, Anarta cordigera, and a melanic Ematurgia atomaria. Papilio glaucus swarmed June 9. June 15 brought Vanessa atalanta, Polygonia gracilis, Erebia disa, Boloria frigga; B. selene and B. eunomia (worn) and C. interior June 24. July 10, Lycaeides argyrognomon in old fire-heaths, with Polites peckius. Others include: Oeneis jutta, June 8 - July 20; Lycaena dorcas, July 13 - Aug. 3; B. titania, July 28 - Aug. 8; Pieris rapae, Aug. 28. Dead fish attracted Vanessa virginiensis, Nymphalis antiopa, N. vau-album, Polygonia gracilis and P. faunus in late August. Larvae of E. comyntas were collected August 12, feeding on pods and seeds of Vicia americana and Lathyrus ochroleucus, plant were adults had been found in July.

ZONE VI: SOUTHEAST - Florida to Louisiana, north to Arkansas and Maryland. Coordinator: Bryant Mather. Contributors: F. H. Chermock, R. W. Chermock, C. V. Covell, Jr., R. Heitzman, B. Mather, J. Newton, and W. Reinthal.

Arkansas: Heitzman and Howe in Benton Co., found collecting poor, with Eurema nicippe, Zerene cesonia, Nathalis iole, Papilio glaucus, Battus philenor, Polygonia comma, P. interrogationis, Anaea andria, Phyciodes phaon, Libytheana bachmanii, Strymon melinus (1), Atalopedes campestris, Lerema accius and Lerodea eufala the principal species.

Florida: Reinthal found Precis orithya and Cercyonis pegala at Jacksonville July 8, and Papilio palamedes, P. cresphontes, Ascia monuste, Heliconius charitonius and Urbanus

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proteus at Ft. George and Kinsley State Park, and at Talbot Island and Fort Clinch State Park, P. palamedes, P. cresphontes, E. lisa, Agraulis vanillae, Asterocampa alicia and A. flora (larvae). July 10 he found A. vanillae, U. proteus and A. monuste near St. Augustine, and five miles south of Marineland, Strymon cecrops in addition. No other reports from Florida!

Georgia: On Jekyll Island, Linn Co., July 8-9, were found P. palamedes, Eurema lisa, E. दौरа, A. vanillae (larvae and adults), P. phaon, Polygonia interrogationis, S. melinus, Epargyreus clarus, and U. proteus. In downtown Savannah were found Pieris rapae, E. lisa, A. flora (one male), A. alicia (both sexes), Polites vibex and Lerodea sp. North of Midway, Liberty Co., (Highway 17) same day, P. troilus and P. palamedes. No other reports from Georgia.

Louisiana: In St. Charles Parish, New Orleans area, on Highway 61, A. celtis (gravid female and clyton (male and larvae). In Norco and St. Rose, P. glaucus, P. cresphontes and P. troilus, Phoebis sennae, A. celtis, A. clyton, (larvae of both), Limnitis archippus, S. melinus, Erynnis sp., Pyrgus communis, Hylephila phylaeus, Ponoquina ocola, Atrytone vestris, all on Aug. 25-27, by Reinthal. August 28 he took P. sennae, Precis orithya and Vanessa virginiana at the north end of Lake Ponchartrain Causeway, and at Fontainebleau State Park, B. philenor, P. glaucus, D. plexippus, P. orithya and V. cardui. On Tammany Road, north of Lake Ponchartrain, P. sennae very common; P. cresphontes was found, both adults and larvae in various stages.

Maryland: F. H. & R. W. Chermock report Lethe appalachica scarcer than usual; Boloria selene absent in 1960; Euchloe olympia, Glaucopsyche lygdamus and Prygus centaureae in fair numbers; Strymon m-album in Canadian zone for first time here, double brooded; Lephelisca borealis abundant along Ten Mile Creek, Allegany Co., Strymon ontario rare. Moth collecting below par in 1960. Some Zale and Catocala at bait in the mountains. "Glaeas" nearly absent. Thymelicus, first found in Maryland near Stevenson in 1959, not found in 1960.

Mississippi: The Mathers' first moth for 1960 was Plathypena scabra, Jan. 6; the first butterfly, Pieris rapae, Jan. 9, reported by Mrs. E. C. Roshore. The Mathers took Hesperia metea at Camp Wahi, Rankin Co., April 3, an extension of range from northern Mississippi to the central area. Atrytone Logan, not previously recorded for Mississippi, was taken at Fontainebleau, Jackson Co., August 1. A significant southward range extension was also recorded when a specimen of Apodrepanulatrix was taken at Jackson, October 15.

North Carolina: Reinthal found P. glaucus and Celastrina argiolus in large numbers in the Sylva, Chulhowee and Cashiers area, Jackson Co., and in the Asheville area, Buncomb Co. In Maggie Valley, Transylvania Co., he collected B. philenor, P. troilus, C. eurytheme, C. philodice, P. sennae, Precis orithya, Speyeria diana (two females seen flying), Lycaena phlaeas, Everes comyntas, and A. campestris. In the Fontana Village area, September 25, B. philenor, P. troilus, C. eurytheme, E. lisa, D. plexippus, P. orithya (abundant and fresh) and E. comyntas. No other reports from North Carolina.

South Carolina: Reinthal found B. philenor, P. glaucus, C. philodice, V. virginiana (overwintered), Incisalia augustinus and E. juvenalis (just emerging) at Oconee State Park, Oconee Co., April 17. In Paris Mt. State Park, Greenville Co., same day, one overwintered Nymphalis antiopa and E. comyntas, fresh and plentiful. Near Columbia, Calhoun Co., July 30-31, P. sennae; South of St. Matthews, Pieris rapae and C. eurytheme; at Creston, A. celtis larvae, III-IV instar; Santee State Park, E. nicippe, C. eurytheme, P. orithya, E. comyntas and Thorybes bathyllus. On a swampy side road south of Holy Hill, Orangeburg Co., P. glaucus, and P. palamedes. Near Aiken, Aiken Co., Pholisora catullus in addition. South of Clark Hills, McCormick Co., many butterflies on flowers of wild heliotrope: E. lisa, E. nicippe, P. tharos, Precis orithya, Achalarus lyciades, Pyrgus communis, A. campestris, (worn), H. phylaeus, P. catullus, L. eufala, Thorybes sp., Polites sp. and Amblyscirtes sp.

Tennessee: Spring late at Knoxville. March 27, Polygonia interrogationis (overwintered). April 7, Celastrina argiolus. April 19-23: P. glaucus, Graphium marcellus, C. philodice, Anthocharis genutia, P. tharos, and L. augustinus. At Fall Creek Falls State Park, Van Buren and Bledsoe Cos., April 24: P. troilus, C. eurytheme, E. comyntas, E. juvenalis (many, fresh), E. brizo and E. persius, plus some above. Cumberland Mts. State Park,

Cumberland Co., most of above plus I. augustinus and E. horatius. Low in Smoky Mts., early May, P. glaucus and troilus, large numbers of B. philenor, G. marcellus, P. rapae, P. virginiensis (numerous, mostly worn, ovipositing on Dentaria), P. tharos, I. nippon and I. augustinus, S. melinus, E. juvenalis, E. martialis, Erynnis sp., and Thorybes bathyllus. Same area, May 15, many fresh S. cecrops, Poanes hobomok, E. clarus, Erynnis icelus and one male Autochton cellus, possible a new record for eastern Tennessee. Between Tellico Plains and Coke Creek, Monroe Co., on July 3, these were taken: Lethe eurydice (one male), V. atalanta, L. astyanax, C. pegala. One fresh male Speyeria diana seen flying, July 17, Falls Creek State Park, second generation P. glaucus and P. troilus, Euptychia cymela, C. pegala, P. tharos, P. faunus, and one fresh female S. diana, plus some of the previous species.

At Chattanooga, Hamilton Co., in October, many of the preceding species plus Libytheana bachmanii, V. virginiensis and Euptoietta claudia. Last butterflies seen in the Knoxville area were on October 30: C. eurytheme, E. nicippe, P. sennae, D. plexippus, P. tharos, Pyrgus communis and Atalopedes campestris. First frost Nov. 8; first snow Dec. 15.

Virginia: From the Norfolk area Newton reports only the usual species: L. bachmanii, P. glaucus, palamedes, troilus and polyxenes, V. atalanta, P. interrogationis, L. astyanax, E. comyntas, P. rapae, and Euchloe olympia. Covell, reporting from the Blackburg area, found the season average or better, while collecting the Dismal Seamp area early, and after June, the Blacksburg area. Eighty-five species of butterflies taken. Moisture adequate. S. cybele and aphrodite abundant, S. idalia and S. diana frequent, the latter late (first July 5). Polygonia, except P. faunus smythi, common. V. cardui, common after absence in 1959. Papilios good, including a few P. cresphontes. Strymon falacer and Mitoura gryneus second brood abundant. One small colony of Lephelisca borealis near Blacksburg. Asterocampa celtis common, A. clyton scarce. Pieris protodice and other common Pieridae abundant in September. Amblyscirtes carolina not seen before Covell left Norfolk, though early in 1959. Autochton cellus found twice near Blacksburg. Dominant skippers in June and July: Polites verna, Wallengrenia otho, and Epargyreus clarus. In the fall, P. peckius, manataaquia and themistocles, P. communis and A. campestris. Moths abundant at light, especially Arctiidae and Geometridae. Citheronia regalis and Eacles imperialis not common. Collecting season: from March 27 to October.

ZONE VII: NORTHEAST - Pennsylvania to Maine and Quebec. Coordinator: L. P. Grey. Contributors: L. Bayer, A. E. Brower, R. B. Butler, C. J. Dempwolf, C. J. Durden, L. P. Grey, J. Muller, J. Smaglinski and G. B. Small, Jr.

Maine: Brower reports season late but advancing rapidly. Nymphalis antiopa, overwintered, May 6-7, C. argiolus May 17, P. polyxenes and P. glaucus May 20, V. virginiensis May 26, I. augustinus, E. juvenalis and Amblyscirtes vialis May 28. Poanes hobomok June 4, Euptychia cymela June 5, soon common. In the Caribou area, June 8-9, P. progne, I. augustinus, Carterocephalus palaemon; At Augusta, June 10, Ancyloxypha numitor, Phyciodes tharos, Feniseca tarquinius, Thorybes pylades, June 11. June 19, P. interrogationis (a large colony of larvae at Brooklyn in July). At Acton, Limenitis arthemis June 22. At Alfred, Euphydryas phaeton, Chlosyne harrisi and A. vialis, June 21. First Speyeria cybele at Augusta June 28-30. Second brood C. argiolus, Rockland, July 7; at Augusta July 16-17. Oeneis polyxenes and Colias interior scarce on Mt. Katahdin July 9-11. At base of Mt. Katahdin, July 10, Lethe portlandia, L. arthemis, and S. atlantis. Strymon falacer not found at Augusta in 1960, but Epargyreus clarus taken July 17, and second brood P. polyxenes on July 28. One P. faunus, Mt. Katahdin Aug. 4. Boloria selene at Rockland Aug. 27. Colias few in 1960. Collecting for Catocala above average, Sphingidae few.

Grey notes collecting has worsened in recent years. Bogs, mountain tops and isolated niches still profitable. The collector must know the area. He found moths normal, with Catocala having best year since 1930's.

New Hampshire: Grey took sixty Boloria Titania before the cloud cap closed in, and notes that Cragway spring on Mt. Washington seems to no longer produce this species, though there are other spots.

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New Jersey: Muller found days warm, nights cool with butterfly collecting good, moths poor, better for Catocala. He reports Strymon caryaevorus from Newton and from forty miles north west of Newton. Thymelicus lineola again common. Papilio cresphontes not taken in 1960. In re S. caryaevorus, Small reports it common at Newton, N.J., and also in a number of places in Connecticut and New York, and has seen specimens from Lee, Massachusetts, taken by E. A. Creer.

Dempwolf and Butler report a two weeks early season, after warm weather in March. At New Brunswick, Mitoura gryneus, April 23. At Lakehurst, L. augustinus, L. polios and L. nippon April 15-30. L. irus peaked May 14. M. hesseli scarce in 1960. Fires in cedar swamps may contribute to this. One S. m-album, May 3, was the season's highlight. Colias late (May 15) compared to April 26, 1960, but Boloria toddi three weeks early (May 15), opposed to June 13, 1959. Strymon spp. had a good year. I. lineola spreading, abundant in Great Swamp west of Lebanon. Lycaena epixanthe abundant at Lakehurst June 25, with first Cercyonis pegala. First Speyeria June 26, scarce in 1960. S. falacer abundant at Pluckemin June 26 and for two weeks after. Lephilisca borealis and S. caryaevorus at Springdale July 2, females of L. borealis common by July 15. S. caryaevorus flies around young hickory trees, high, so long handled net needed. Poanes massasoit at Lakehurst, July 5. A few worn Euptychia areolata septentrionalis found at Lebanon State Forest, and one S. acadica June 6 at Springdale. One unidentified female Strymon in Ramp Mountains, mutant or possibly unrecognized. P. massasoit by thousands in Great Swamp July 21. Fresh Lethe eurydice, Great Swamp, Aug. 7, after seven weeks' absence, at variance with supposed univoltine habit.

New York: Butler at Springfield Center found cool weather June 18, but found larvae of E. phaeton on plant not Chelone glabra. Weather good on June 19, adults of E. phaeton numerous, Boloria selene present. At Karner, two females of Lycaeides melissa, last of first brood. Males of Chlosyne nycteis numerous. At Springfield Center, July 9, numerous L. eurydice, associated with different grass than in New Jersey. Also C. pegala, S. cybele (scarce) and Polygonia spp. July 10, one L. thoe and on July 23, S. acadica. At Karner, July 24, second brood, L. melissa, forty taken, more females. S. edwardsii and S. titus common, worn. One female L. thoe at Springfield Center Aug. 21, and at Massena, two pairs, near the Alcoa Plant.

Bayer found collecting fair but season retarded, especially on Long Island. April butterflies appeared in May. From Hyde Park, Albertson and Harkness areas he reports E. cymela, common, C. pegala, reduced, P. comma and V. virginensis, below par, V. atalanta and V. cardui common, Precis orithya absent for second year, L. archippus reduced, L. astyanax common, S. melinus common, S. falacer fairly so, C. argiolus common, L. phlaeas low, E. comyntas, Papilio spp., common, Battus philenor, one, damaged. Colias common late in season, Eurema lisa absent in 1960, P. rapae common, as were the usual skippers. Moth collecting good. Amphion nessus, one May 28, another May 15 by James Cocks. Atreides plebeia, one, Albertson (Cocks), Sphinx chersis, one emerged, larva on privet, Dolba hylaeus, one emerged, larva on blueberry. Ampeloeca myron larvae very common, two larvae Sphecodina abotti on grape, two larvae Pholus pandorus, five larvae Calasymbolus myops on wild cherry. Phlegathontius sexta larvae common this year. Catocala concumbens reduced from 1959. Two C. vidua, on C. epione and one C. paleogama. Pyrophila pyramidoides very common at sugar. Bayer used UV for first time, took twenty-five species of moths, many of them micros.

Pennsylvania: Smaglinski, in Berles and Lancaster Cos., with G. Peter and H. Moyer, found 1960 poor for butterflies. Satyridae seemed normal. Theclinae above normal, S. falacer swarming. L. irus, L. nippon and L. augustinus, good numbers. Except for S. cybele and B. toddi, Nymphalidae poor. Pieris rapae, "too many", P. protodice none, Anthocharis genutia normal, Papilionidae poor, but a few Graphium marcellus taken. Blues and coppers poor except for L. phlaeas, Colias poor in number and variety. Danaus plexippus scarce, third year, as was Nymphalis antiopa. Even usual Hesperiidae reduced. Moths much better: Catocala below 1959, in numbers, but more species represented. Sphingidae quite numerous, with P. sexta and P. quinquemaculatus notably numerous. Other moths at least normal, except Arctiidae, which were down.

Ontario: Smaglinski reports L. archippus and Hesperia leonardus very common at Clarendon in August.

Quebec: Durden found C. argiolus the earliest species at Ile Perrot, April 3 to May 25, with form marginata commonest, but viola and lucia present. As usual, the darkest specimens were from a sphagnum bog. A female was observed ovipositing on Spirea. P. progne and P. comma on May 3, at sap. I. nippon uncommon on Pinus resinosa barrens May 11. A female of this species taken in sphagnum bog on white pine, two miles from the barrens. One Pieris virginiensis May 11; on May 18, in numbers. P. rapae, E. tarquinius, B. toddi and P. polyxenes common in a damp meadow May 25. No I. lanoraieensis found at type locality, May 28, but Q. jutta just emerging, C. argiolus just "going over", P. glaucus and B. toddi peaking and I. augustinus ubiquitous. Moths were abundant at sap, but fewer species than in 1959. Among those taken: Phigalia olvacearia, Lycia ursaria, Xylena vetusta, Lithophane georgei, Taeniocampa hibisci, Eupsilia morrisoni, E. vinulenta, X. curvamacula, L. disposita and L. bethunei and E. trisignata (?).

ZONE VIII: THE FAR NORTH - Alaska and Northwest Territory to Labrador Baffin Land. Coordinator: Lee D. Miller. Contributors: D. Eff and Colin Wyatt.

Alaska: Eff received specimens of Pieris napi taken near Anchorage in May, and three Polygonia faunus taken at Fire Lake August 12.

Northwest Territory: Wyatt found Colias hecla plentiful at Spence Bay, Boothia peninsula, but C. boothi less common. C. nastes rossi very plentiful, extremely variable, about 50% with wings strongly flushed with orange. Boloria improba common, very dark. The unnamed extreme arctic B. frigga not common. This form has an extremely enlarged discal silver wedge on under side of hind wing and is very different from other subspecies of this species. B. chariclea (possibly butleri) common. Females very dark. B. polaris americana locally not uncommon, small and heavily adumbrated on both surfaces in the females. Erebia rossi local, scarce. No other species recorded. Wyatt notes that C. boothi, C. nastes rossi and C. hecla seem distinct, but he has too little material to draw conclusions as to relationships.

ZONE IX: NORTHERN NEOTROPICS - (at present) Southern Mexico, British Honduras, and Jamaica reporting. Coordinator: Eduardo C. Welling. Contributors: E. C. Welling, C. O. Morse and C. B. Lewis.

Jalisco: Rains which usually begin in May and June were very late and even then butterflies were scarce. Morse reports similar conditions in Vera Cruz and Puebla. Moths (and beetles) abundant. Considered the worst collecting season in five years.

Yucatan and Quintana Roo: The reverse of conditions in Jalisco. Rains excessive, beginning in late May. Moths abundant, especially Sphingidae, in northern Yucatan, some species common for first time since 1956. Common butterflies normal or above. Rarer species not so much influenced, with such exceptions as Siderone nemesis and Dryas phaetusa. In the forests of Quintana Roo, Caligo memnon, Nessaea aglaura, Prepona spp. and others were abundant at traps baited with spoiled bananas, and were far above normal, as were Papilio acesilaus and profesilaus.

British Honduras: Equatorial species few in July and August. Numbers low in spite of normal rainfall. Better in December, apparently, since in January numerous battered Victorina and others were seen. Trapnet results poor for second year. UV gave good results, especially with Arctiidae, but Sphingidae very scarce.

Jamaica: Rainfall exceptionally even, and vegetation lush. What effect this may have on collecting in 1961 remains to be seen. Little organized collecting done in 1960, and nothing unusual reported. The usual pierid and Papilio marcellinus concentrations notably absent.

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