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A REMINDER: Don't forget the Annual Meeting, July 1-2, Town Hall, Wonderland Shopping City, at intersection of Fredericksburg Road (U.S. 67) and Loop 410, San Antonio, Texas, U.S.A. Information may be obtained from Program Chairman Roy Kendall, 135 Vaughan Place, San Antonio 1, Texas, U.S.A.

LEPIDOPTERA SEMINAR AT YALE: An informal Research Seminar on several aspects of Lepidoptera research was held in the Department of Biology, Yale University, 29 March 1963, organized by Dr. C. L. Remington. Data on current research were presented and discussed, and specimens, slides and demonstrations were shown.

The following presented informal talks: (1) Dr. L. P. Brower (Amherst College) - Tests of edibility to birds of Mullerian complexes of Heliconiines in Trinidad; (2) Dr. J. M. Burns (Wesleyan University, Conn.), Phylogeny and geography of Erynnis spp.; (3) Dr. C. A. Clarke (University of Liverpool, England), New data on industrial melanism of Biston betularia in the Liverpool area. (Earlier in the day he described current genetical experiments on Papilio dardanus at a Cytogenetics Seminar at Yale); (4) R. W. Pease, Jr. (Yale), Spermatophore number in wild females of various genotypes of Utetheisa bella in a Florida population; (5) Dr. K. Saitoh (Yale; on leave from Hirosaki University, Japan), Chromosome numbers in Agathymus; (6) O. R. Taylor, Jr. (Univ. of Connecticut), Satyrium genitalic studies; Age of laboratory mating in Atteva; Percentage of melanics of 1963 Phigalia titea; (7) W. B. Watt (Yale), Chromatographic studies of Colias wing pigments.

Also participating in the Seminar were Mrs. Clarke, D. S. Chambers, Dr. N. W. Gillham, S. A. Hessel, and Jeanne E. Remington.

Recent lepidopterist visitors at Yale University and Amherst have included W. H. Dowdeswell and Miriam Rothschild Lane from England.

Dr. W. J. Reinthal, Knoxville, Tennessee, continued in 1962 his revisional study of the genus Asterocampa. A trip to Haiti and Puerto Rico was undertaken in search of the rare A. argus idyia, and general collecting on these islands was also done. The study of the Great Smoky Mountains National Park butterfly fauna was continued, all current data from the Park compiled, and seven species added to the fauna of the Park.

SUMMARY, 1962 SEASON

Zone I: CALIFORNIA, ARIZONA, NEVADA. Coordinator, Fred Thorne. Contributors: A. & E. Austin, D. Beals, W. Hedges, C. Henne, P. J. Herlan, C. Hogue, R. L. Langston, E.M. & S.F. Perkins, R. Priestaf, K. Roever, A. Rubbert, O. Shields, P. Spitzer, J. W. Tilden, and R. Weast.

CALIFORNIA: Flight periods were normal to two weeks late in southern California for spring species, due to rainfall and cold; summer season normal, fall also. Northern California spring flights very early to normal; summer season delayed by cool weather and heavy snow pack in the mountains; fall season normal.

1963(A):1

First half of year with cold wet spells, delaying the season. San Francisco Bay region had coldest, foggiest July in 70 years. Agraulis vanillae, which has pushed farther north in recent warm years, suffered some reduction in its northern range. Fall was dry.

Urban growth continued to encroach on collecting areas. A brush fire in the Santa Clara Hills burned over 9,000 acres. Larvae of Meliclectria dobla from near Adelanto, San Bernardino Co., showed unusual amount of parasitism (Henne).

MIGRATION: None reported except the usual Danaus plexippus movements. Priestaf reports migrating plexippus common in Santa Barbara area; Mrs. Beals noted them more numerous in Los Angeles area than for 3-4 years. Langston reports very few in San Francisco area (cold, foggy), but they were more numerous inland, though large directed movements were not noted.

STATE AND COUNTY RECORDS: A single Oncocnemis pernotata, Valyermo, Los Angeles Co., Calif., 21 October (Henne), believed to be a state record. What may be county records include: Oncocnemis mirificalis, Big Pines area, Los Angeles Co., 16 Sept.; O. chandleri, Mt. Pinos, 8800, 12 Aug., Ventura Co. (Henne); Chlosyne leanira, Black Mt., 1 May, San Luis Obispo Co., Mitoura nelsoni muiri & Hesperia columbia, Cuesta Pass, 4 May, San Luis Obispo Co., (Langston); Hesperia tildeni & Apodemia mormo, 21 Aug. & 6 Sept., Del Puerto Canyon, Stanislaus Co. (Langston); Lycaena heteronea, 7 July, Bodega Bay, Sonoma Co. (Langston).

CHOICE SPECIES AND INFORMATION FOR COLLECTORS: Philotes enoptes dammersi four miles southeast Warner Springs, San Diego Co., 15 Sept. (Rubbert & Hogue); P. enoptes smithi on sand dunes at Seaside, Monterey Co., 24 Aug., and two new subspecies of P. enoptes from the Bay Area counties, May to July (Langston); Speyeria egleis adiate unusually common in Santa Cruz Mts. (Tilden); S. e. tehachapina, Tehachapi Mt., Kern Co., 2 July, flying with S. callippe macaria (Beals); Callophrys johnsoni, Jerseydale, Mariposa Co., flying with C. spinetorum (Shields); Colias behrii very abundant 26 August east of Tioga Pass, 10,000 ft. (Perkins); Satyrium auretteum spadix south side Cuyama Valley 22-24 June, San Diego Co. (Beals); Papilio multi-caudatus, Pinecrest, Tuolumne Co., (Spitzer) and Jerseydale, Mariposa Co., flying with rutulus (Shields); P. indra, east of Tioga Pass, 4 July (Perkins) and P. indra pergamus larvae Dexter Peak, San Diego Co., 19 May (Hedges); Proserpinus clarkiae and 5 spp. Annaphila 31 March, Kern River Canyon (Henne, Hogue & Rubbert); Axenus arvalis, Tie Canyon, San Gabriel Mts., Los Angeles Co., 2 April; Fala ptychophora, Red Rover Canyon, Los Angeles Co., 7 April; Heliolonche carolus, n. of Adelanto, San Bernardino Co., 12 April & Pseudotamila vaccinia, Summit Mt. Pinos, Ventura Co., 16 June (all Henne).

GOOD COLLECTING SPOTS: Kern River Canyon near Democrat Hot Springs, Kern Co., 31 March to 11 April, excellent fro day flying phalaenids (Henne, Hogue & Rubbert); Sierra Madre Mts., south side of Cuyama Valley 22-24 June (Priestaf); slopes of Kings River Canyon, Fresno Co., 22 April (Priestaf).

LIFE HISTORY OBSERVATIONS: Langston has associated Philotes subspecies, Plebejus acmon and Apodemia mormo with at least 7 spp. of determined Eriogonum. Henne reared Sphinx dolli australis from Juniperus californica near Acton, Log Angeles Co., larvae July 20, adults 13 August. He has also reared the following spp. of Annaphila - A. baueri on Nemophila spatulata; A. pseudoastaloga on Phacelia campanula vasiformis, and A. abdita on Montia perfoliata. Shields obtained 3 doz. larvae of Agathymus stephensi from Agave deserti in mid-June near Jacumba, San Diego Co., and reports rearing Euphydryas chalcedonia quino on Scrophularia californica. Numerous reports on relative abundance of common species came in but space regrettably will not permit coverage. These reports will be on file. Langston offers information on Philotes enoptes to those interested. Write to him directly.

ARIZONA: FLIGHT PERIODS AND UNUSUAL CLIMATIC EVENTS - Good flights of early species, esp. Pieridae, on open desert in February, and in lower canyons in early April (esp. Melitaeinae), despite a cool spring. Cool windy weather retarded collecting in late April & May. Summer rains were light resulting in poor fall collecting. Higher elevations had heavy snows which delayed flight periods as much as two weeks in June.

No MIGRATIONS reported, though the annual flights of Libytheana bachmanii was given as three weeks late, peaking in mid-September, apparently not directed.

No NEW STATE OR COUNTY RECORDS reported.

CHOICE SPECIES: Antheraea polyphemus oculatea males swarmed around caged females at Pena Blanco, Santa Cruz Co., 3 Aug. None came to light. One male Rothschildia jorulla cinctus taken, Brown Canyon, Baboquivari Mts., 1 Aug., but R. forbesi females failed to attract cinctus elsewhere in southern Arizona (Weast). Euptychia pyracmon and rubricata abundant,

WASHINGTON: Choice species and records - Outstanding event, the taking of a good series of Colias nastes on Windy Peak, within five miles of the Canadian border. (Shepard reported in Lep. Journ. 16:46, a single specimen plus one seen at Bunker Hill Lookout, 1961.) The species is definitely a resident of Washington. Oeneis melissa taken on Windy Peak. (both Carney & McCorkle) Agriades glandon taken at 7,000', Yakima Co. (Newcomer) (a single reported by Shepard in 1960). Plebeius shasta spangelatus (described originally by Burdick under lupini), Hesperia hulbirti, Boloria titania, Oeneis chryxus, Erebia vidleri, Hurricane Hill and Obstruction Point, Olympic Mts., August 1, (Tilden); Callophrys fotis, Spokane and Yakima Cos., new localities for the state. Euphydryas spp., Chlosyne manchada and Lycaena nivalis abundant. (McCorkle & Newcomer); Boloria selene and Phyciodes barnesi, Ockanogan Co., (Rogers & Newcomer); No Callophrys johnson taken in 1962. Other species present in usual numbers.

Miller reports 1962 a poor season for light trapping; weather cool. Autographa californica, Prodenia praefica and Chorizagrotis auxiliaris were abundant. Annaphila decia was taken.

LIFE HISTORY: Papilio indra on Lomatium triternatum, P. eurymedon on Holodiscus discolor; Neophasia menapia on Pinus monticola; Euphydryas colon on Pentstemon subserratus and on Symphoricarpos; Phyciodes barnesi on thistle; Satyrium behrii on Purshia tridentata; Callophrys fotis on Sedum; C. spinetorum on Arceuthobium campylopidum, and C. nelsoni on Thuja plicata (all McCorkle & Carney). Newcomer took eggs of Lycaena nivalis on two species of Polygonum and induced Chlosyne manchada to oviposit, but the food plant has not been determined.

IDAHO: Theclids especially numerous. Effects of forest fires of 1961 still noted. Increasing automobile traffic is affecting roadside collecting. Caterpillars of Polygonia fannus on Vaccinium (huckleberry) (Report of James Manning).

OREGON: Bauer took Euphydryas veazieae and Chlosyne acastus in Harney Co., June; an odd Chlosyne on Snake River north of Huntington, and E. veazieae (?) near Lonerock, Gilliam Co. Dornfeld found C. spinetorum abundant northeast of Sun Pass, Klamath Co.; also a strong flight of Pseudohazis eglanterina. Newcomer found numbers of Chrysophanus titus along west shore Summer Lake, August; he did not find Pholisora libya at Ana Springs as he did in 1961, but Cercyonis pegala present. At Summit Prairie, abundant Speyeria, esp. zerene complex, at flowers of dogbane. These exhibit much the same variation as that described by Moeck & Grey (Journ. Lep. Soc., 16:81-97). Boloria selene flying at Big Summit Prairie, Crook County. Apparently, Callophrys johnsoni not taken in Oregon since 1959. Other species in usual numbers.

MONTANA: Only report is from John W. Goosey, Jr., one of our youngest members. Papilio turnus, common in 1961, was scarce in the wetter 1962 season. Other species taken include Speyeria mormonia eurynome (as late as Oct. 31) Limentis weidemeyerii, 7,500' in the Crazy Mts., Agriades glandon and Platysamia cecropia.

Zone III. ROCKY MOUNTAIN AREA - ALBERTA, WYOMING, UTAH, COLORADO, NEW MEXICO. Coordinator: Donald Eff. Contributors: R. L. Anderson, Tom Davies, Scott Ellis, Raymond Jae, Sam Johnson, John Legge, James Scott, Kenneth Tidwell and R. E. Woodley. This year showed an improvement in contributors, esp. in Colorado, Wyoming and New Mexico still remain areas needing representation.

FLIGHT PERIODS AND WEATHER: Collecting mostly below average; a few species abundant; many scarce or missing this year; weather poor in many areas.

ALBERTA: One of the poorest summers; much cloud cover and rain. Excessive rain in June & July. Erebia discoidalis, Cercyonis pegala, C. oeta, Oeneis macouni, Boloria alberta & selene, Speyeria edwardsi, callippe, Hydaspe; Vanessa cardui & atalanta, Callophrys iroides & polios, Lycaena mariposa, Colias nastes and meadii, were among the species very scarce or entirely absent. More than usually numerous were Parnassius phoebus, Erebia disa & episodesa, Oeneis alberta, varuna, beani & jutta; Boloria freija, titania, eunomia and astarte; Speyeria mormonia, Euphydryas anicia & editha beani; Nymphalis milberti, Limentis lorquini and Callophrys eryphon. Of special interest to Alberta was the discovery of Plateau Mountain, a new collecting spot where it is possible to drive above timberline and collect Euph. beani, Oeneis beani, Boloria astarte, Lyc. phlaeas arethusa, Colias nastes, and others. (Most of Alberta report from Legge.)

Madera Canyon, 18 June; Polydryas pola abundant at Pima Co. line on Hgwy. 83, 17 June; one pr. Neophasia terlooiti, Graham Mts. 20 June; Pieris napi, White Mts., June, Colias alexandra nr. McNary, 24 June; Coenonympha tullia subfusca abundant, Big Cienega, White Mts., 25 June; Cholsyne theona abundant 2 mi. W. Jerome, 28 June (Hedges); Cholsyne theona and alma abundant near Flagstaff early July and Polygonia faunus common in White Mts. late July (Roever).

GOOD COLLECTING SPOTS: K. P. Cienega, 9,200', White Mts., 24 June, many species swarming on iris flowers; Water hole 2 mi. W. Jerome, 28 June, several good spp. (Hedges).

LIFE HISTORY OBSERVATIONS: Fresh Callophrys xami were taken in early April, early July and early October, indicating 3 broods (Roever). Polydryas pola adults abundant with 2nd instar larvae to pupae on Pentstemon sp. near Sonoita 17 June, indicating much brood overlap (Hedges). Rothschildia jorulla cinctus pupae found on two different host plants, Brown Canyon (Weast). Weast will publish later his studies on Saturniids, inc. hybridizing experiments with R. jorulla & R. forbesi.

NEVADA: FLIGHT PERIODS AND UNUSUAL CLIMATIC EVENTS - Spring flights late; summer and fall flights nearly normal. April unusually cold, blustery; snow fell as low as 4,000' 14-16 May, hurting spring collecting. Southern Nevada still suffering effects of several drought years.

OTHER FACTORS AFFECTING LEPIDOPTERA: Extensive home building in the Lake Tahoe area is destroying some good collecting spots, and a choice locality for Lycaena rubidus was eliminated by construction of a dam near Hobo Springs, Douglas County.

No MIGRATION reported.

RECORDS: Austins report Plebeius shasta from Clark Co., possibly a state record. Possible county records: Leptotes marina, Callophrys spinetorum, and Speyeria nokomis, Kings Canyon, Douglas Co., 9-18 Aug. (Herlan); Cholsyne alma, Lyon Co., 6 mi. E. Dayton, 28 May, and Pholisora (Iena?) Lyon Co., Corral Springs, 17 June (Herlan); Papilio indra, Ormsby Co., Clear Creek Grade, 28 May (Herlan).

CHOICE SPECIES: In addition to the above, these taken in the Charleston Mts. by the Austins deserve mention - Papilio bairdi, Ash Spring, 6 July, 3,770'; Coenonympha tullia ochracea, Kyle Canyon, 6,500', 4 July; Limnitis weidemeyerii nevadae, Lovell Mt., 4,400'-6,300', 23 June - 18 July; Callophrys spinetorum and C. siva, Lovell Mt., 6,100'-6,600', 14 & 18 July; Plebeius shasta, Lee Canyon, 8,500', 21 July; Hesperia juba, Willow Creek, 23 June; Pyrgus scriptura, Lee Canyon, 8,200', 10 June (if id. is correct, this must be an altitude record!-Ed.); Callophrys fotis, Lee Canyon, 7,000', 6 May; Ochlodes yuma, Tule Springs, 2,440', 4 July.

GOOD COLLECTING SPOTS: The Austins report better collecting on the west slopes of the Charleston Mts. in washes and canyons and about springs, than on the drier eastern slopes. Herlan reports a good spot for S. callippe nevadensis on McClellan Peak, Storey Co., Northeast slope 7,450', 20 June - 15 July; suggests Kingsbury Grade Road, 1 mile from base of hill, Douglas Co., for Speyeria nokomis, Speyeria leto and other desirable species, mid-August.

LIFE HISTORY OBSERVATIONS: Ova of Speyeria leto hatched in 12 days; within 4 hours the small larvae concealed themselves in dead pansy stems to hibernate (Herlan).

Much additional information from the Austins and Herlan is on file. Their efforts have made possible the first comprehensive summary ever reported for Nevada.

Zone II. PACIFIC NORTHWEST - BRITISH COLUMBIA, WASHINGTON, OREGON, IDAHO, MONTANA.

Coordinator, E. J. Newcomer. Contributors: D. L. Bauer, D. Carney, E. J. Dornfeld, J. W. Goosey, Jr., R. Guppy, J. Manning, D. McCorkle, R. E. Miller, E. J. Newcomer, W. Rogers, R. E. Woodley.

FLIGHT SEASON AND WEATHER: Early spring cool, temperatures below normal in Oregon and Washington, a hot spell last 10 days of July, with unseasonable rainy spell first week in August. Except for this week, collecting good. In British Columbia a cold spring, excessive rainfall in August on Vancouver Island; season late. Early collecting poor; summer good except for August. Idaho, season early, good. Montana apparently normal.

BRITISH COLUMBIA: A colony of Plebeius saepiolus, wiped out in 1958 by weed spraying, reappeared following discontinuance of spraying. Nymphalis antiopa unusually scarce on east coast of Vancouver Island; plentiful on west coast.

UNUSUAL SPECIES: Eosophoropteryx thyatyroides, single, Wellington, Aug. 12, first since 1949. Stilpnotia salicis, one. (Introduced, a serious pest in the 1920's, thought to have been eradicated by 1950). (Guppy). Woodley took Colias nastes, Oeneis jutta and chryxus, Erebia disa & epipsodea, and Speyeria atlantis in eastern British Columbia.

Zone IV: GREAT PLAINS - Canada to Texas in the Plains Region. Coordinator: H. A. Freeman. Contributors: H. A. Freeman, R. Heitzman, R. H. Stewart, R. Kendall, S. F. Perkins and E. M. Perkins.

SEASON AND WEATHER: Unusual in the southern portion of Zone IV. Periods of heavy moisture alternated with prolonged dry periods. Northern Texas was unusually warm in February, with a cold spell in early March, resulting in early emergence of some species and disruption of emergence of several March species. In the Big Bend area there was no rain from the first of the year through Easter, with resulting scarcity of spring species. During August the area was hot and dry, with little on the wing.

KANSAS: Hot weather in May caused an early emergence and the broods for the rest of the year were also early; in some cases small extra late broods were noted in several species. It is planned to note if this has any effect on next year's (1963) populations. The year in Kansas was very good collecting.

NEW RECORDS: Atrytone dion, along the Missouri River, seems a new state record.

CHOICE SPECIES AND INTERESTING CAPTURES: Satyrion liparops and S. ontario showed up after a year's absence, in Johnson Co. A single female E. phaeton was collected, the first recorded from Kansas for many years. On the Prairie east of Lawrence was taken Atrytone arogos, a rarity.

Species especially common in 1962 were E. cymela, P. coenia, L. astyanax, N. iole and A. lyciades. Speyeria idalia and cybele swarmed in prairie meadows in Douglas Co. Problema byssus and S. edwardsi were common in their very local habitats. Lycaena x. dione was above normal.

Species scarce or below normal were: Papilios (except cresphontes); L. portlandia, A. vanillae, P. progne, A. celtis & clyton, V. cardui, S. falacer, C. cesonia, H. phylaeus and E. martialis. (Heitzman reporting)

OKLAHOMA: Heitzman reports good numbers of some species at the Grand Lake area, Craig Co., mid-May. Papilio troilus, Limenitis astyanax, Thorybes confusus, I. pylades, Achalarus lyciades, Polites themistocles were fresh and numerous. Common but worn were Battus philenor, Chlosyne gorgone, Calycopis cecrops, and Anaea andria. Moth collecting at UV was fair at the Honey Creek Arm of the Lake. Some of the more interesting takes included Epimecis virginaria, Apantesis anna & figurata, Hypsophora monilis & hormos. A. luna and Anth. polyphemus were common. D. myron was the only sphingid. (only report)

TEXAS: In March, Heitzman did considerable collecting. Spring was well advanced March 18 near Dallas. In a creek bed south, Colias eurytheme (many), Phyciodes tharos, Callophrys henrici, Atlides halesus, Erynnis juvenalis & P. communis. March 19, S. of San Antonio, fields of wild flowers yielded but few butterflies: Battus philenor (abundant), Vanessa atalanta, Precis orithya and Atalopedes campestris, plus some of the preceding; also the first Danaus plexippus of the season. Brownsville and San Pedro, 20-27 March, freezing weather had killed so many plants that collecting was good only in a few spots. E. hermes, P. phaon, Cal. beon, Calphelis nemeis, Pyrquus syrichtus and Amblyscirtes celia were locally common. Uncommon species included Asterocampa leilia, Vanessa atalanta, Phyc. tharos and texana, Euptychia gemma freemani, Strymon columella, Zizula cyna, Hemiargus isolus, Papilio cresphontes and polyxenes, Battus philenor, Colias cesonia, Eurema lisa, Krigonia castalia, Erynnis funeralis, & tristis, Staphylus mazans, Copaeodes minima, Lerodea eufala, Polites vibex plus some of preceding, Phyciodes vesta and Libytheana bachmanni were common but worn. Padre Island, 27 March, butterflies few, similar species to above, except for two fresh Panoquina ocala. Tyler State Park, three hours wonderful collecting preceding a two day rain storm. P. troilus, Battus philenor, Chlosyne gorgone, E. juvenalis and Phyc. tharos very common, Callophrys hadros in amazing numbers; twenty-five specimens taken, plus a series of Hesperia metea licinus, some E. gemma, Anthocharis genutia, and single specimens of Callophrys henrici & niphon, and Amblyscirtes alternata. This was the best locality Heitzman found in Texas. Freeman had similar success in the same locality.

In Big Bend National Park during Easter, Freeman collected a series of pupae of Megathymus violae, plus larvae of Agathymus mariae. One specimen of Apodemia mormo meicanus was taken, always scarce in that locality. The region was dry, and few other species were in evidence.

Stewart, reporting from Fort Worth, found the season earlier than usual in the spring, about normal during the summer. Callophrys henrici was scarce but other species of

CHOICE SPECIES: Of special interest are the continued appearance of Papilio nitra; the colony of Euphydryas gilletti near Highwood Pass; a dark form of Boloria freija near the Columbia Ice Fields; the capture of a blue female of Speyeria cybele pseudocarpenteri among the normal brown females in the Cypress Hills.

WYOMING: No reports except the Scotts did some collecting in the Tetons in mid-June. Of interest are a still unidentified Euphydryas, and Lycaena cupress that differ markedly from the Colorado L. c. snowi.

UTAH: For excellent coverage of this state we thank Ken Tidwell, Glenn and James Scott, Raymond Jae, and Tom Davies and Don Eff also made jaunts unto Utah. So few reports have ever been turned in for Utah, that comparative seasons and numbers are not available.

Collecting was good except the North Fork of the Provo River, Summit County, where spraying for Pine Beetles also eliminated Lepidoptera. Collecting excellent in Stansbury Mts., Tooele Co.; this area has been sampled in recent years by transient collectors with spectacular results. Some things found here do not occur elsewhere in Utah so far as known. Speyeria egleis linda and atlantis tetonia extend "spur ranges" into this region; the latter also taken in nearby Oquirrh Mts., along with Atlides halesus and Chlosyne alma.

NEW RECORDS: Erebia callias, taken in Uintah County, is a new state record. Colias meadii and Erebia magdalena seem to be new Uintah Co. records. Also, P. phoebus hollandi, taken on type locality in the La Sal and Abajo Mts., SE Utah. The most amazing discovery was a colony of Speyeria nokomis, in Uintah County in NE Utah. Here is an extremely restricted locality for a "lost" butterfly, which has a history cloaked in doubt and mystery, complicated by suspicions of deliberate mislabelling. The new colony is hundreds of miles from the nearest known locality which is in the opposite corner of the state. Don Eff suggests, along with Ken Tidwell, that collectors fortunate to find this species should exercise judgment and restraint by taking only good specimens, and limiting number, especially of females, to insure continued existence of the colony. Perhaps other colonies exist in Utah! OTHER CHOICE CAPTURES include Callophrys fotis, Anthocaris sara browningi, Oeneis jutta reducta and Chlosyne acasta. (Anyone for a trip to Utah? Ed.)

COLORADO: Flight season and weather - The winter was exceptionally cold, believed to be the reason for reduced numbers of Papilio (except nitra) and Speyeria on the main ranges. (Speyeria seemed normal on West Slope). A brief cold spell in late May and early June is blamed for subpar collecting in June, which had very good weather. High elevational species seemed normal. Species below normal were Callophrys eryphon, polios and iroides; Hypaurotis crysalus continues absent; missing also were Pyrgus xanthus and Callophrys spinetorum, both always scarce.

By late June subalpine and alpine species were flying on time or early. Oeneis alberta oslari and the Bolorias were in good numbers. Erebia magdalena appeared in late June, usual time July 4.

CHOICE SPECIES AND NOTABLE CAPTURES: This was the best year on record for Erebia. Magdalena and epipsodea were in good numbers; E. theano & callias swarmed. Jae reports fair numbers of Oeneis taygete edwardsi and good numbers of O. jutta reducta.

OF SPECIAL INTEREST is the capture of six specimens of Papilio nitra. Four of these were taken SW of Denver by the Scotts, one west of Denver by Jae, and one north of Boulder by Eff.

RECORDS OR RANGE EXTENSIONS include capture by Scott Ellis of O. alberta oslari near Granby in North Park. This is a substantial range extension, previous specimens all being taken in South Park, vic. Fairplay; Satyrium fuliginosum, in numbers, 4 mi. N. Hayden, Routt Co. (Ellis & Johnson); Papilio indra minori, Delta Co., 80 mi. S. of type locality (Ellis); Papilio bairdi, John Brown Canyon, (nr. Gateway), Mesa Co. (Ellis); Ochlodes yuma and Hesperia juba in Delta Co. (Ellis). Ellis has added a number of new records to known fauna of the Western Slope. On the Uncompaghre Plateau Tidwell found S. atlantis nikias, Lyc. nivalis browni plus Euphydryas and Plebejus. Eff recorded what is believed to be the first record of Lyc. nivalis browni for the east slope, one taken on Corona Pass Road, just north of Tolland, Gilpin Co., July 11.

NEW MEXICO: No reports.

IOWA: Royer found spring normal but summer and fall flight periods early. Fall brood of Polygonia emerged a month early, in July. Collecting in Waubesa State Park in late April found Callophrys henrici, and E. olympia common, Graphium marcellus, Amblyscirtes vialis and Erynnis brizo present. Problema byssus was taken 30 July in Boone County.

UNUSUAL CAPTURES include Libytheana bachmanii, the first in three years, and Lethe eurydice fumosa, collected in far northeastern Iowa.

MIGRATION: Hayes noted hundreds of D. plexippus passing overhead near Waterloo, 12 Sept.; Florence McCaughey observed large numbers of this species drifting to the south on Sept. 21 near Dubuque.

INDIANA: Badger took Thymelicus lineola 23 June near Culver, a WESTERN RANGE EXTENSION for this species in the United States.

MIGRATION: Mrs. Welcome Riddle, Lakeville, and Mrs. T. C. Harrison, Chesterton, both observed Danaus plexippus migrations in September.

OHIO: Martin reports high temperatures in April & May, with spring flight periods 2-3 weeks early; by fall the season was back to normal. Lycaena phlaeas and P. tharos abundant in spring brood. Species absent this year were Vanessa cardui, Libytheana bachmanii, Eurema lisa and Achalarus lyciades.

CHOICE SPECIES: Collected in Findley State Park - Lycaena thoe, Chrysophanus titus, Lethe portlandia, Speyeria aphrodite, Papilio cresphontes, Battus philenor, Hesperia leonardus and Thorybes bathyllus. Near Wellington, 27 May, in one clover field: P. polyxenes, glaucus, troilus, Battus philenor and Graphium marcellus. Speyeria aphrodite and Battus philenor seem to be returning in limited numbers.

MINNESOTA: The summer was wet and cool with few good collecting days. Flight periods were normal to slightly late. Collecting in general poorer than in 1961. Schrenk collecting in Todd County found fewer Catocala and Sphingidae than normal. During the few good days in June and July, Coenonympha tullia (benjamani), Lethe eurydice, Cercyonis pegala (nephele), Speyeria cybele, Limenitis archippus & arthemis, Chrysophanus titus and Satyrium acadica were collected. The latter was very common. Danaus plexippus was far more abundant than usual. Larvae of D. plexippus were abundant in August. Nordin reports Papilio scarce but Satyrium liparops (strigosum) and C. tullia common in Sibley State Park, with Limenitis arthemis & astyanax and "hybrids". Chlosyne gorgone (carlota) was common at Blue Mount State Park, Rock County, but nowhere else in the state.

CHOICE CAPTURES include discovery of a colony of Lycaena phlaeas in Anoka County, and 2 Euchloe ausonides, 7 June, Knife Lake (Wick).

APPARENT STATE RECORDS are Thorybes bathyllus, 30 June, Houston County; Callophrys augustinus 16 & 23 June in Lake of the Woods County, and Lycaena dorcas, 1 August in an acid bog in Kaochiching County.

MIGRATION: On 2 September, in Todd County, several 50 ft. oak trees were observed nearly covered to the top with resting D. plexippus. Migrating individuals were noted in late August and early September.

EARLY STAGES: Larvae of Nymphalis antiopa and N. milberti were common this year.

ECOLOGICAL NOTE: Tree frogs were very numerous in 1962 and helped (perhaps) to reduce the butterfly population. It was noted that when shrubbery frequented by certain hairstreaks had tree frogs on the leaves, there were no hairstreaks to be found on these shrubs!

WISCONSIN: Sieker reports a disappointing season, butterflies scarce. The only exception, D. plexippus was extremely abundant in northeastern Door County in late August and early September. Thousands of this species covered the fields of asters and goldenrod. Southern MIGRATION observed in late August and in September.

SEASON. The season started normally, but was followed by a summer so cool that many pupae failed to emerge. Sphingidae, Notodontidae and most Catocala were less common than normally. However, Phalaenidae, Saturniidae and Geometridae were normally common to abundant. Arctiidae uncommon except for Apantesis virgo. Antheraea polyphemus was abundant; Automeris io, Actias luna and Callosamia promethea were common. Thirteen species of Sphingidae were collected, including Celerio lineata (rare for the area), and a single Phlegethontius quinquemaculata. Catocala amica and cara were very rare but C. cerogama was again common. Twenty-one species of Catocala were taken.

hairstreaks were more common in the spring of 1962 than in 1961. Strymon titus watsoni, taken in May in the Fort Worth area, is a county record. Euptychia cymela, Chlosyne lacinia, Colias cesonia and Atlides halesus were in average numbers. Zizula cyna was taken March 25 and May 29.

MIGRATIONS: Flights of Monarchs in the Fort Worth area were heavier in September than in 1961.

LIFE HISTORY OBSERVATIONS: P. cresphontes larvae were found on Xanthoxylum clava-herculis, E. clarus on Robinia hispida, and Papilio glaucus on Fraxinus.

Roy Kendall reports a female Limenitis fessonia, a Myscelia ethusa, several Chiomara asychis, and numerous larvae of Gesta gesta, at Bentson State Park, during November.

Stephen F. & Edwin M. Perkins, Portland, Ore., report collecting in Texas in November: McCulloch Co., Roadside Park 2.6 Mi. N. Highway 283, Farm Rd. 765 Jct. on Hgwy. 283, 9.11.62, N. iole (very common), Pap. polyxenes, P. orithya, Microtia dymas, Chlosyne elada, Phyc. tharos; Kenedy Co., 6 Mi. S. Sarita on Hghwy. 77, 10.XI.62, D. gillippus, Eurema mexicana, P. cresphontes, B. philenor, P. tharos, M. ethusa (1); Cameron Co., N. Combes, Hghwy. 77, A. iatrophae, A. halesus, Anaea andria, M. amymone, E. lisa & Ascia josephina; Hidalgo Co., south end Pharr and Bentson State Park, 13.XI.62, Euptoieta hegesia & claudia, Colias cesonia, Eurema nicippe, Libytheana backmanni, Anaea aidea, Chlosyne californica, plus some of the preceding; Starr Co., 5 Mi. N. Roma (Arroya Minita), 14.XI.62, Agraulis vanillae, Krigonia castalia, plus some of preceding; Terrell Co., 1 mi. W. Sanderson in Hghwy. 90, 15.XI.62, A. vanillae, Pap. polyxenes, Phyc. vesta & texana.

MIGRATION: In the Dallas area September and October had the usual southward Monarch migration.

No reports from other states of Zone IV. If the rather meager reports can be interpreted, the season was rather normal in Zone IV. The few who reported did a very good job. More contributors from this zone are needed. Ed.

Zone V: CENTRAL REGION - Missouri to West Virginia, North to Ontario. Coordinator: J. R. Heitzman. Contributors: S. Badger, M. L. Bristol, K. Dixon, Wm. Edmonds, J. R. Heitzman, A. M. Holmes, R. Holzman, Mrs. Alice Hopf, W. Howe, D. Marsden, L. Martin, M.C. Nielsen, J. Nordin, Mrs. A. Potter, R. Royer, J. Schrenk, C. F. Zieger.

In General Zone V. reports collecting from good to poor. Most states reported abnormal heat in April & May, causing early flight periods. Migrations of Danaus plexippus were largest in years, noted by most collectors and by many lay observers as well.

MISSOURI: A heat wave in May advanced flight periods by two weeks for the rest of the year. Collecting equal to or superior to 1961. Heitzman and Zieger found collecting good in the Warsaw area of the Ozarks, late April, with Euchloe olympia, Anth. genutia, Callophrys gryneus and henrici common. In Mid-May Cal. cecrops, Erynnis martialis & Atrytonopsis hianna were abundant in the same locality. Eurystrymon ontario & Satyrium liparops reappeared; Satyrium edwardsii swarmed. Speyeris idalia & cybele, Problema byssus and Lycaena x. dione were abundant. Scarce were Asterocampa clyton, Graphium marcellus, & Hesperia metea. Panhiades m-album was absent for second year. A late fall kept butterflies on the wing until November. Marsden found the season normal in eastern Missouri with Anth. genutia on 23 April, Euphydryas phaeton abundant 30 May and Phoebis sennae common in mid-August.

UV was good again this year, esp. for Catocala and Sphingidae. Up to 40-60 sphingids a night from May to September. Twenty-four species were collected, choice ones being Xylophanes tersa, S. eremitus and S. drupiferarum. Thirty-one spp. Catocala were taken, inc. C. abbreviatella, serena, coccinate, consors, nebulosa and connubialis. Saturniidae were numerous, A. luna especially common.

RECORDS: Euphydryas phaeton was taken in Jackson Co., a new county record. Epantheria scribonia was also a new record for Jackson County.

LIFE HISTORY: Euphyes dion was reared from ova, food plant not stated.

MIGRATIONS: Migrations of Danaus plexippus passed over Missouri in mid-September, with huge swarms noted over North Kansas City by Keith Dixon on 16 September. Other species showing mass movements were Precis orithya and Phoebis sennae.

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Zone VI: SOUTHEAST - Florida to Louisiana, north to Arkansas and Maryland. COORDINATOR: Bryant Mather. Contributors: W. A. Andersen, Bill Boscoe, J. C. Brooks, C. V. Covell, Jr., C. C. Curtis, J. R. Heitzman, Mrs. William Hills, Mrs. Alice Hopf, H. L. King, B. & K. Mather, E. J. Paulisson, J. C. Symes and C. F. Zeiger.

MARYLAND: Andersen found spring later and colder than usual; drought in August made late collecting poor; summer and fall flight periods normal.

Some of the BETTER CAPTURES: At New Bridge, 19 June, Atlides halesus (12), Satyrium ontario (1), S. falacer, S. liparops, Poanes massasoit hughii. At Thurmont, 28 June, Satyrium edwardsii (18); at Roller, Carroll County, Boloria selene marilandica. At Soldiers Delight, September, H. leonardus. At Parkton and in Worcester Co., Erynnis baptisiae. At Benfield, Anne Arundel Co., Callophrys irus; Colias cesonia absent this year. Nymphalis antiopa and Erynnis hcratius more common than usual. Phoebis sennae found after a two year absence.

NEW RECORDS: New State record - Euphyes alabamiae, New Bridge, Dorchester Co., 12 July. New County record - Callophrys irus, Unionville, Worcester Co., 26 April.

LIFE HISTORY: Lycaena thoe larvae on dock 14 June; reared; emerged 14 July.

VIRGINIA: Covell, collecting between 29 March and 21 September, took 78 species of butterflies in 27 counties. The season began earlier, and remained later than usual. Emergence appeared to be spread over longer time periods. Hot dry weather tended to reduce abundance in western section in July and August. Many desirable species were present in good numbers in the Dismal Swamp area in June. The locality for Satyrium kingi is lost due to being built over.

NEW COUNTY RECORDS: Panthiades m-album, Rockridge and Montgomery Cos.; Polygonia progne, Rockridge Co.; Lerema accius, Cumberland Co.; Hesperia leonardus, Prince William and Powhatan Cos.; Panoquina panoquin, Gloucester and King and Queen Cos.

NORTH CAROLINA: Covell, near Sparta, Allegheny Co., 29 Aug., took L. astyanax, S. cybele, P. tharos, C. philodice & eurytheme, Lyc. phlaeas, E. clarus and Polites origenes. Curtis and Boscoe, 30 June - 6 July, Graham and Swain Cos., took specimens of 26 species of butterflies inc. Speyeria diana, Polygonia faunus, & E. persius in day collecting, and took Lethe creola and Satyrium liparops at strong lights on a cool damp night. They took specimens of 12 Spp. of Shingidae inc. C. jasminearum, & S. kalmiae; also Cith. sepulchralis, Priox. robiniae, and 32 species of Catocala inc. nebulosa, marmorata, herodias, clintoni, miranda and blandula. E. nubilis was taken flying like a butterfly at 3:30 PM on a hot afternoon. They regard this as the best of the three past years for moths, but not for butterflies.

MIGRATION: Mrs. Hopf contributed reports from Marie J. Strasser, Brevard: Many monarch butterflies, large numbers in September; butterfly bushes with dozens. Also from Edna B. Dunham, Henersonville; at least two monarchs daily from 30 September to 9 October.

SOUTH CAROLINA: On 27 August, Symmes found Problema bulenta and Poanes viator in good supply in US Wildlife Sanctuary, Jasper Co., near the Savannah River in fresh water coastal marsh on pickereelweed blossoms.

GEORGIA: Brooks found an earlier than usual spring flight destroyed by a March freeze, with summer and fall flight normal in time but reduced by drought in October & November, in the Macon area. Previously abundant species absent were Euptychia areolata and Chlosyne nycteis. Callophrys gryneus was unusually rare; Panthiades m-album more frequent in the summer. Pieris virginiensis fairly common in Rabun Co. in mid-May. At Jekyl Islands, 25 August; Pap. cresphontes, Heliconius charitonius, Danaus gilippus, Ascia monuste, Phyc. phaon and Polygonia comma common; 6 Phoebis philea taken. Graphium marcellus far below normal.

Symmes found all megathymids at the bottom of the cycle, fewer than in any years since discovery in 1955. Symmes and King, 22 May, Blichton, Bryan Co., took Euphyes berryi & dion, Atrytone logan, and Eupt. areolata. At Savannah, May 25, Symmes took Satyrium kingi, Euristrymon favonius, and Sat. falacer, fewer than in past three years; also taken was Poanes yehi on Liqustrum near bamboo. He also found Hesperia meskei in fair numbers in pine woods, Atlanta, Fulton Co.

UNUSUAL CAPTURE: An aberration of Calycopis cecrops with extensive white below was taken in July at Macon.

RECORDS: Symmes and King took Euphyes bimacula (7) on pickereelwood blossoms at Blichton, Bryan Co., 22-24 May, in open swamp, (det. S.S. Nicholay), a new record for S. E. U. S. King took Problema bulenta at Pt. Wentworth on 13 August, a new state record.

NEW RECORD: Ceratomia catalpae, 3 June and 31 July, from Plattsville, in a state record. Larvae were collected on Catalpa in the same area.

GOOD CAPTURE: Two Anisota stigma were taken, only one other having been taken previously in thirty years of collecting (Sieker).

MIGRATION NOTE: Douglas Wade driving along Hghwy. 94 between Hudson and Eau Claire observed thousands of dead D. plexippus along the road and other thousands flying overhead.

MICHIGAN: Nielson collecting in six counties from 5 May to 6 October found Lepidoptera more numerous than in 1961. Ninety-four species of butterflies were collected, and a number of new moth records made. Flight periods about normal.

In Lenawee County, Satyrium acadica, S. liparops, falacer and caryaevorus, the latter numerous on Sumac flowers. A good capture was a fresh Libytheana bachmanii, the first in twelve years. Graphium marcellus was absent for the first time in 12 years. Marshes in Washtenaw County yielded a female Euphyes dukesi and many Poanes viator and massasoit, in July. The usual spring species were on the wing in Montcalm County, May 5, including Calliphrys niphon, irus, henrici, augustinus; Strymon melinus and Erynnis brizo. In Newago, in the Cactus prairies, Hesperia ottoe was numerous in July, but hard to catch because of lack of flowers. Euphyes bimacula & conspicua, Atrytone logan, and Lycaena dorcas were taken in marshy areas, and Chrys. titus and Satyrium edwardsii were numerous on flowers of New Jersey Tea (Ceanothus). A series of Pyrgus centaureae was taken in Otsego County in May. Later in the season CHOICE SPECIES included Cerma cora, and Acronicta quadrata. Speyeria atlantis and aphrodite were common in July. Nielson, Newman and Warczynski, in bogs north of Manistique, Schoolcraft County, took Boloria frigga and Anarta cordigera, and observed two Oeneis jutta on June 1-3; Papilio glaucus males were observed in large numbers along stream and ditch banks.

Holzman found the season very disappointing in Crawford and Roscommon Counties. All butterflies were uncommon. By UV, 373 Sphingidae were taken from 20 June to 20 August. Common species were Lapara bombycoides, Paonias myops, and Pachysphinx modesta. Just 1 each of Dolba hylaeus, Sphinx chersis and S. pupiferarum were taken. Of the total, only 15 females were attracted by this method. Very few Catocala were attracted. Saturniidae were heavily parasitized in Wayne County. Antheraea polyphemus was parasitized by Frontina frenchi.

NEW RECORDS: Adita chionathai, Anicla infecta and Bas. ~~sp.~~ pepita, UV attracted, from Lenawee County, are state records. Catocala nebulosa is a county record for Lenawee County. Eutricopis nexilis is a county record for Otsego County, taken in late May, as is Anarta cordigera, taken in an acid bog, 16 June.

MIGRATION: Mrs. Allen Potter reports from Grasslake, that a huge migration of D. plexippus passed over late in August and in September, with thousands resting on Hemlock and maple trees in her yard on 3 September. They clung there all night through a rainstorm, flying to the south about noon the next day.

ONTARIO: Edmonds noted that unusually warm weather in April and May caused earlier than normal flight periods in spring and summer broods. Holmes found good spring and summer collecting following the May heat wave. July was rainy with lowered species numbers in August. The season started April 20 with (overwintered?) Nymphalis antiopa. This species was common in 1962, as were N. milberti, Polites origenes and Thorybes pylades. Satyrium spp. were common except for liparops. Colias spp. were rare. A single Strymon melinus was taken at High Park, 30 June. On July 10, Ponty Pool, Durham Co., 32 Spp. were collected. Holzman found the season about two weeks advanced at Point Pelee in late August. Asterocampa celtis and D. plexippus were common; other usual species were rare or absent.

LIFE HISTORY: Papilio glaucus (canadensis) larvae found on wild cherry in first instar on July 10 pupated 27 August. This species feeds very slowly with long periods of resting as compared with the rapid development of Papilio polyxenes. Many ova and first instar larvae of D. plexippus were found during September.

MIGRATION: Best year for D. plexippus since 1957. Hundreds were observed along the shore of Lake Ontario on warm September days. Migrators first observed August 17, peak numbers September 15, when count of a 100 ft. area showed 30 individuals per 5 minute period. September and October were cool and rainy; few butterflies other than D. plexippus observed.

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ARKANSAS: Paulissen reports an early warm spell in February, followed by large numbers of spring butterflies. A hot dry summer followed, with a long cool spell in September, and a poor showing of fall butterflies.

Heitzman found the area around Eureka Springs good in mid-May, taking P. troilus, S. cybele, L. astyanax, C. cesonia, E. martialis, Staphylus hayhursti, Thorybes confusus, Poanes zabulon, A. lyciades and E. clarus in fresh condition; Chlosyne gorgone and others were worn. Also taken were a series of Poanes hobomock, fresh, on wild pink phlox, and 10 fresh males of Amblyscirtes samoset on oak and grape leaves 10-12 feet off the ground. At lights he took Actias luna, Antheraea polyphemus, Automeris io and Epimecis virginaria. Paulissen, also in Northeastern Arkansas, found Callophrys gryneus, Atlides halesus and Polygonia comma frequent; Anthocharis genutia was scarcer than usual. In normal numbers were Pyrqus communis, Strymon melinus, Agraulis vanillae, Euptoieta claudia, Precis orithya, Euptychia sosybia and gemma. Feniseca tarquinius was absent. In the spring Psychomorpha epimenis was not seen, but Alypia octomaculata was more than usually frequent. In the fall, Sphingidae and Apantesis were sharply reduced in numbers taken at lights. Tolyte vellela was not seen. Hemileuca maia was in usual numbers and Hyphantria cunea colonies were in great abundance.

NEW RECORDS for NW Arkansas include: Calphelis virginiensis, Polygonia progne, Callosamia promethea and Thysania zenobia.

Zone VII: NORTHEAST - Pennsylvania to Maine and Quebec. COORDINATOR: L. P. Grey. Contributors: L. Bayer, W. F. Boscoe, A. E. Brower, R. B. Butler, J. W. Cadbury, J. Cancellio, Jr., C. Curtis, R. Gilmore, L. P. Grey, W. Hills, Mrs. A. Hopf, C. Malmesbury, R. May, R. Muller, A. Shapiro, J. Smaglinski.

FLIGHT PERIODS AND SEASON: New England experienced a cold summer. New York and Pennsylvania were more normal, with flight seasons a bit early in the late summer in New York. No detailed reports from the Canadian area.

MAINE: Brower & Grey fear the return of the glaciers, noting the gradual worsening of the seasons culminating in the '62 summer which broke records for subnormal temperatures and cloudy days. This was followed by a winter that shocked old-timers into silence. Diurnals spotty, low except for a few local northern colonies. The bulk of field and roadside butterflies seem to be getting scarcer statewide. Callophrys (Incisalia) were surprisingly rare; Colias and Limenitis markedly low. Brower, reporting for southern Maine, notes D. plexippus apparently in an upswing; a few Euptychia cymela were taken in the Alfred-Waterboro areas. Light trap catches were light, though yielding some fine records. Exceptional takes include Exyra relandiana and Nymphula broweri at Saco, on a bog. Catocala were low. Grey's traps produced well, but with a larger than usual percentage of "trash" species.

MIGRATIONS: Cottrell saw D. plexippus flying 4-5 miles to sea off the Maine coast, and occasionally lighting on the water.

NEW HAMPSHIRE: Boscoe and Curtis report abnormally cold during the first half of August, but good evenings in the latter part of the month, temperatures around 65° F. Catocala taken in the vicinity of Romney included C. briseis, concombens, ultronia, crataegi, cordelia, blandula, ilia, palaecgama, and relicta (20). At lights, C. unijuga and several sphingids and arctiids were taken. Grey visited the Cregway Springs, Mt. Washington, concentration area for Boloria titania (montinus) noted fair number in flight August 12. Boscoe and Curtis located a colony B. toddi in a marshy area at the base of this mountain, 23-28 August.

VERMONT: Bayer reports a cold wave in mid-August which had a marked effect in reducing populations of Lepidoptera. Very few diurnals were taken, and these of common widespread species. Lights attracted only a few micros. The area covered was mostly the vicinity of Gifford Woods State Park.

MASSACHUSETTS: No general reports. MIGRATION: Cottrell noted three D. plexippus 3 miles at sea off Boston Harbor, September 16.

CONNECTICUT: Muller, around Devon, noted a rather normal season. He located a colony of Asterocampa clyton near the Litchfield-Fairfield County Line, where hackberry grows, an area that also yields an occasional Libytheana bachmanii. Lethe portlandia is in an upswing; Speyeria idalia had a good year. He took Callophrys gryneus and Anthocharis genutia in good condition May 6.

POSSIBLE MIGRANT: Mrs. Hopf contributes a report from Mrs. James Chaisson, Jr., of Atlanta, of a monarch in a pine grove on October 7.

FLORIDA: Zeiger found flight periods normal; reported temperatures of 12° F. (Jacksonville) and 9° F. (Orange Park) on 12 December. Fires in spring destroyed colonies of Cercyonis pegala and Euptychia areolata at Orange Park, Clay Co. Building, weed control (spraying) on railroads and insecticide spraying for mosquitoes hurt collecting, he reports. Mrs. Hills reported drought in May and reduced numbers, many species entirely absent. King also reported drought April-September.

Zeiger found C. gryneus numerous at Ft. George, Duval Co., July-Sept.; C. henrici rare at Gold Head State Park, Clay Co. April collecting for hairstreaks good near Ostachata, Hernando Co., and in Orange Co. in May. General collecting good all year along Highway A1A Fernandina to Ft. George and Highway 13 near Picolata, St. John Co. In September E of Gainesville at a boat ramp near the S. end of Newnan's Lake he took a large number of Asterocampa alicia and A. flora (det. W. J. Reinthal) feeding on persimmons on the ground; also Limenitis astyanax and archippus; a pair consisting of one archippus and one astyanax was seen in coitu.

King reports complete absence of S. calanus, and of all Lepidoptera on Key Largo. Symmes, on the other hand, had excellent collecting in the Keys between 30 March and 9 April, taking the following: 30 March, C. gryneus, Gulf, Taylor Co.; 31 March, Hesperia attalus on thistle, S. of Weeki Wachee Springs, Hernando Co.; Strymon acis on wild croton, Big Pine Key, April 3; on April 4, Anaea floridalis ovipositing in numbers on wild croton, Big Pine Key; 5-6 April, same locality, Euphyes arpa & palatka scarce on thistle, Hesperia meskei fair numbers on exposed coral at fresh water pond near center of island; Ephyriades brunnea in fair numbers on Lantana over the entire island; Strymon martialis and columella scarce on Lantana. On 8 April, Matheson Hammock, Miami, Marpesia petreus and Appias drusilla fresh, Euristrymon favonius fair on Old Cutler Road (20-ft. net needed). April 9, Eumaeus atala very strong, all stages in evidence. King reported Euri favonius and Megathymus cofaqui normal, Atlides halesus and Panthiades m-album poor, Megathymus yuccae buchholzi good. At Kissimmee, Atrytonopsis loammi, Hesperia attalus, Atrytone aroqos and Poanes aaroni were plentiful, on thistle, April 15. A population "explosion" of Colias eurytheme was noted at Sarasota. Papilio aristidamens ponceanus was not seen on Key Largo in May and June.

UNUSUAL CAPTURES: At Pensacola Mrs. Hill took the following species of butterflies at lights at night: Satyrrium calanus & kingi, Euristrymon ontario, Atlides halesus, Panthiades m-album and Graphium marcellus.

NEW RECORDS: Poanes viator, 13 August, Trout River, is a new state record, by Symmes. Mrs. Hill, collecting at Pensacola, established 102 new species records for Escambia County, and the following thirty new records for the state: Erynnis martialis, Apantesis intermedia, Pyreferra ceromatica, Balsa labecula, P. interrogans, Pometia indubitans, Bomolocha toreuta, Chytolita petrealis, C. fulicalis, Hyarpax aurora, Haematopsis grataria, Adoneta spinuloides, Loxostege obliteralis, Phlyctaenia extricalis, Thaumatopsis fernaldellus, Paralipsa decorella, Acrobasis stigealla, Salebria engeli, Eucosma cataclystiana, Suleima helianthana, Epinotia timidella, Sereda lautana, Grapholitha parckardi, Sparganothis diluticostana, Cacoecia cerasivorana, Argyrotoxa semipurpurana, Peronea logiana, Cryptolechia faginella, and Argyresthia subreticulata.

ALABAMA: No reports.

LOUISIANA: Correspondence between Mather and Ross of Baton Rouge revealed that Ross's work had added nine new state records for Louisiana: Phyciodes texana, Chlosyne gorgone, Mestra amymone, Callophrys gryneus, Callophrys henrici (turneri), Call. n. nippon, Eurema mexicana, Pholisora catullus and Poanes yehi.

MISSISSIPPI: The Mathers, collecting in the Jackson area, added the following new state records: Ampeloeca versicolor, Acronicta americana, Acronicta morula, Ac. modica & retardata, Chorizagrotis inconcinna, Cerastis tenebrifera, Lacinipolia explicata, Copipanolis styracis, Basilodes pepita, Schinia jaquarina, Protocryphia flavoguttata, Catocala innubens, vidua, nebulosa, concinna, crataegi, & grynea, Z. confusa, Spargaloma sexpunctata, Zanclognatha obscuripennis, Renia salusalis, Nyctobia angulinea, Palaearctia mericcata, Nematocampa brunneolineata, Eucosma circulana, Cacoecia fractivittana, and A. minuta.

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MIGRATION: A remarkable daylight movement of *Feltia subgothica*, WSW to NNE, was seen by Shapiro, October 1.

PENNSYLVANIA reports were quite full this year, especially Ehle, Smaglinski and most particularly Shapiro. He submitted a beautifully prepared sixteen page report, with detailed records and a great deal of source information. Quoting Grey: "Shapiro's report, in particular, excellently spotlights the basic difficulties faced by coordinators and editors of these annals..... It....seems unjust to dismiss (this report) with cursory mention, and yet if the SUMMARY is to be kept within...limits it must be as an index only, from which interested students can learn what is available in the archives of the Society--" (end quote). The Editor reminds the membership that the full text of all such reports as reach him are preserved and are available for the years since resumption of the SUMMARY. So extensive reports are not lost. However, I am sure the membership will realize the impossibility of publishing such extensive reports out of the relatively modest Society budget. Grey again keynotes the historical importance of such files of contributors' reports (quote): "It is hoped that Mr. Shapiro and the many others who devoted equally careful labor to this project will feel rewarded in knowing that their records are on file for the future and that these cooperative summaries should indeed become of large historical and scientific interest as the face of the countryside changes and the Lepidoptera ebb or rise with urbanization."

Zone VIII. FAR NORTH. COORDINATOR: Lee D. Miller. Contributors: J. A. Legge, A. Legge. Report on six weeks collecting in Yukon and Alaska. Season poor due to abundant rain; only two of seven days spent in McKinley Park were free of rain. Eight species of *Erebia* taken, most notable of which was *errinyn* (*E. magdalena mckinleyensis*) in the Richardson Mountains at about 4000' (this may be the first record of this species for Canada). Also taken: *E. fasciata*, *theano alaskensis*, *youngi* (2 subsp.), *rossi*, *epipsodea remingtoni*, *disa subarctica*, and *discoidalis*. The following *Oeneis* were taken: *jutta*, *taygete fordii*, *chryxus caryi*, *melissa gibsoni*, *polyxenes*, *bore mckinleyensis*, *brucei yukonensis*, plus two unidentified species, one possibly *peartiae*. *Parnassius evermanni* was taken on the North Fork of the Klondike River (first Canadian record ?) and *P. apricatus* collected in McKinley Park. *Euphydryas anicia helvia* was taken at Dawson City in early July. *Boloria napaea* was taken in Alaska at Eagle Summit and McKinley Park, *B. improba* at Eagle Summit, *B. chariclea* McKinley Park, Eagle Summit, Klondike Pass and Richardson Mts. *Boloria distincta* was not seen or taken in the Richardson Mts. *Colias hecla glacialis*, *C. nastes alaskae*, *C. palaeno chippewa*, *vitabunda*, a dark form of *christina* and *boothi* were taken, all abundant except *boothi*. *Lycaena phlaeas* subsp. was found at McKinley Park. *Speyeria* not common; *S. mormonia* subsp. (*bischoffi* ?) in central Alaska. *S. m. opis* in southern Yukon, and dark *S. atlantis* in northern British Columbia, Liard Hot Springs. *Papilio machaon* and *Papilio glaucus* were taken at several localities.

Zone IX: NORTHERN NEOTROPICS. COORDINATOR: Eduardo C. Welling. Contributors: E. J. Austin, J. R. Heitzman, G. N. Ross, M. E. Serrano, C. J. Vogt, E. C. Welling.

MEXICO: No one statement can be made for the entire country, which is covered below by states and areas.

SONORA: Welling collected west of Santa Ana in late April and found conditions dry as usual. The most interesting observations was a small MIGRATION of *Vanessa cardui* from southeast to northwest.

NUEVO LEON: Austin collected here in August, finding good collecting. NOTABLE CAPTURES were: Many worn male *Papilio ornythion*, also *Papilio palamedes*, and *Limenitis astyanax*. (Vogt and Welling, in mid-January, 1963, found weather too dry and cold for any collecting in this area.)

SAN LUIS POTOSI: (No report for 1962, but Vogt and Welling, mid-January 1963, found butterflies extremely abundant at the base of mountains facing the Gulf Plain near Tamazunchala (+110 M) and Tiacuicola (+250 M). The collectors were surprised to see such abundance of material during the dry season. Especially common were *Adeipha*, *Eurema*, *Myscelia*, *Leptophobia aripa*, *Phyciodes claudina* and many HesperIIDae and LycaenIDae.

HIDALGO: (Again, no report from 1962, but Vogt and Welling in mid-January, 1963, found fair collecting of RiodinIDae and "*Thecla*" species at yellow roadside flowers near Zimapan (+2100 M), as well as a few other things.

RECORD: Hills took an example of Hilariographa jonesi at Granby, July 31. This rarity was described from Martha's Vineyard; only a few examples are known.

NEW YORK: Butler, Otsego County, reports a dry spring, flights about on schedule, becoming early as summer progressed. The Albany County ("Karner") Lycaeides melissa colony peaked in early July. Satyrium acadica had another good year. From New York south contributors complained of "hot and dry" conditions, in contrast to the "cold and wet" gripes of northern New England collectors. (Apparently there are no borderlands where the climate behaves as it should! - Grey) Bayer, on Long Island, notes the season lagged a bit throughout, cool and mild temperatures to the end of November. Bayer and others remarked on widespread parasitism, high for many species, especially ichneumonids on saturniids and sphingids. More good Long Island collecting areas were ploughed up and lost; a colony of Eurema lisa seems to have been wiped out.

Tennejohn reports an early spring and normal summer aside from a dry July which did not hurt collecting appreciably. GOOD CAPTURES: A male Euptoieta claudia near Albion, June 27; a small colony of Euphyes dion, vicinity of Irondequoit, in a sawgrass marsh, first two weeks in July.

MIGRATION: Mrs. Hopf reports flight records for D. plexippus: A large migration through Westport, July-September (Observer - Mrs. Paul Dotterrer); Many D. plexippus seen during September at Mt. Peter (Observer: Mrs. Styles Thomas); at least 200 individuals noted along a ten-mile span of parkway from Braddock's Bay, near Rochester, September 30.

NEW JERSEY: Butler notes a rather normal season, with rain above normal in March and early April. Early summer was dry; species at the Great Swamp in Morris Co. were a week early. Boscoe and Cadbury found moths good at Browns Mills, including sphingids, Catocala and Arctiidae: Notodontidae were especially abundant. May found good diurnals at the Hartfield Swamp area, including Satyrium acadica, Boloria toddi and B. selene. Butler found Callophrys irus scarce at Lakehurst, and noted that C. hesseli was up in numbers and peaked about 10 days earlier, May 5 as compared to May 15 in 1961. At Bluckemin, Somerset Co., Euphydryas phaeton peaked about June 16, a week earlier than in 1961, and was more numerous. Satyrium falacer and caryaevorus were fresh and plentiful, also a week earlier than in 1961. At Springdale, Sussex Co., S. caryaevorus and other hairstreaks were most abundant around July 3. Calphelis borealis was up in numbers; most hairstreaks seemed a bit down. At Newfoundland, Passaic Co., a small colony of S. acadica was found along the Pequannock River, plus other hairstreaks. In Mahwa Township (Ramapo Mts.), Passaic Co., Lethe portlandia was plentiful July 4. At Lakehurst, Ocean Co., Lycaena epixanthe and S. liparops were in numbers on June 17. The Lakehurst area was visited by Ehle and Smaglinski June 28; the usual hairstreaks were present, but only falacer was common. L. epixanthe was nearly past.

Along the New York Thruway and the Taconic State Parkway north of Spring Valley a conspicuous defoliation by unidentified moth larvae was seen over a wide area.

UNUSUAL CAPTURES: Boscoe and Cadbury took a few specimens of the rare Catocala herodias at Lakehurst during July and August. Ehle and Smaglinski took a pair of the rare E. ontario in the Lakehurst area June 28; also singles of Hesperia attalus, Euphyes bimacula and Polites origenes.

RECORD: May took Thymelicus lineola at West Caldwell June 22, and saw another.

MIGRATION: Hundreds of D. plexippus were sighted on Long Beach Island off Barnegat Bay (Malmesbury); Many were seen clustered on Goldenrod in mid-October at Plainfield (Mrs. Donley)

PENNSYLVANIA: The season seemed to be good and fairly normal in this state. Boscoe and Curtis noted that sugaring and flushing were mostly poor this year. Gilmore took numerous A. polyphemus and males of Citheronia regalis were fairly common. Concello had good collecting at Taylor Memorial Arbutorium, Chester, Delaware Co., including Euphydryas phaeton; he reports Predis orithya down. At Sumneytown, Boscoe and Curtis took Anthocharis genutia, Papilio cresphontes, Euphydryas phaeton, and others. They took some choice Catocala including C. subnata, robinsonii and serena.

UNUSUAL OCCURRENCE: Shapiro found Limenitis hybrids in unusual numbers near Morristown.

RECORDS: Gilmore reports Chlaenogramma jasminearum and Sphinx franckii from Washington County. Boscoe and Curtis took Carterocephalus palaemon and Anisota virginiana at Porter's Lake, Pike Co., on Route 402. Shapiro records Lycaena thoe from Philadelphia Co., August 23, Lethe eurydice from Philadelphia County, late June-early July, and Satyrium caryaevorus from Montgomery Co., June 26-July 8.

PUEBLA: (Vogt and Welling, in mid-January, 1963, found good collecting as usual near Atlixco (+2050 M), including Papilio multicaudatus, P. victorinus, Phyciodes cortes, Phyciodes texana, and others. Near Tehuitzingo many "blues" were taken in a moist river bed, at +2100 M.)

OAXACO: Austin, in August, found many species in the drier interior mountains and fewer things on the wetter slopes, where wet weather prevented good collecting. Welling, during September and October, found extremely good conditions on wet northern slopes of mountains facing the Gulf of Mexico. Collecting was especially good from sea level to +1700 M.; from +2150 M. to +3400 M. collecting was very poor, perhaps due to retarded season, perhaps to poor flights. Most species of the lower levels had flight greatly increased over 1961. Callicore anna, Catagramma titania, Lyca, and casta, Actinote guatemalena, Dioriste tauropolis, Pedaliodes pisonia, Heliconius hortense, Ituna lamirus, and several species of Dismorphia were included. Catantacta teutila was scarcer at higher elevations, predominantly females. Catantacta nimbice was nearly absent. Sphingids were very scarce, but other moths were plentiful at black light. As compared to 1961, the season was drier. This aided collecting. In 1961 it rained so much as to hamper collecting. During March, 1962, Papilio garamas, and Marpesia chiron, petreus, harmonia and corita swarmed.

TABASCO: This state was the object of Welling's second annual expedition, and collecting was centered about fifteen miles south of Tenosique, in the extreme southeast portion of Tabasco. Twenty thousand specimens were collected. Welling found the fauna rich and varied, but typically lowland, with almost no montane elements. The season was considered poor, dry conditions prevailing, and many of the species were found in small numbers only. As this part of Tabasco is inside the geographical limits of the Peninsula of Yucatan, the species captured helped to raise the total species for the entire peninsula to about 650.

VERACRUZ: Ross collected at Catemaco and in the surrounding mountains from June to December. Many species were collected and the season was considered at least fair. Fine Satyridae and Riodinidae were taken at the higher levels. (Vogt and Welling, collecting near Santiago Tuxtla in mid-January, 1963, found many species on the wing.)

YUCATAN: Early part of 1962 was dry, as normal. Rains began on time but died out in August. The fall was abnormally dry. Populations of many species at least normal, though others were below usual levels. Season better than in 1961, but not considered exceptionally so.

QUINTANA ROO: Weather similar as for Yucatan, in the northern parts of the state. Populations about normal, with few exceptions.

Reporting a trip into NORTHERN MEXICO, Heitzman found collecting rather poor in late March, with rainfall below normal and butterfly populations reduced by the hard freezes of the preceding winter. Collecting improved southward, and at El Salto Falls west of Antigua Morelos (just below the Tropic of Cancer) collecting was by far the best of the trip. Eighty-three species were taken in two days. Pieridae and Hesperidae were especially abundant. One of the most interesting was Celaenorrhinus fritzaertneri which was taken in numbers in a dark little cave near the water falls. Anteos clorinde and maerula were numerous but nearly impossible to catch because of their high fast flight. Papilio philolaus was rather common at moist spots, and Myscelia ethusa was common along roadways in the mountains. Single specimens of the attractive Eumaeus debora and Papilio montezuma were taken. Collecting was fair at UV, but only a few sphingids were attracted. Collecting was somewhat disappointing compared to what the visitors had been led to expect. Possibly the season and weather were not favorable.

NOTICES

Lepidopterists' Society members may use this section free of charge to advertise their offerings and needs in Lepidoptera. The Editors reserve the right to rewrite notices for clarity or to reject unsuitable notices. We cannot guarantee any notices, but all are expected to be bona fide.

1963(4)15 WANTED TO BUY: COPY OF HOLLAND's MOTH BOOK. James L. Martin, 27 Thompson St., Dumont, N.J., U.S.A.

WANTED: LIVING OVA OR PUPAE OF DICRANURA VINULA (Notodontidae). Needed urgently by German experimental breeder, from whole range except Germany and England. Contact wanted with anyone able to supply material or detailed information, especially from Japan. K. Dylla, 6411 Fulda-Lehnerz, Germany.

FOR SALE: FRESH (APRIL 1963) PUPAE OF ANTHERAEA PERNYI, 25¢ each, or will exchange. Also many other living pupae and ova available. Send for listing. Can use pupae or ova of P. columbia and C. anquilifera. R. Halbert, 1315 W. 9th St., Los Angeles 15, Calif., U.S.A.

FOR SALE: LARGE QUANTITIES OF LIVING MATERIAL AVAILABLE FROM GEORGIA-FLORIDA-CAROLINAS this year. Send names to be placed on regular mailing list. Larvae of exotic saturniids May through September, with foodplant lists. Will exchange for C. promethea ova. Write in advance. Also, FOR SALE: 100 Burmese, \$9.50; Teinopalpus imperialis, \$1.90; Armandia lidderdali, \$4.75; "Urania riphaeus", \$1.00, Citheronia volgeri, \$1.95 per pair; South American Saturniidae 10 for \$4.00. Will exchange for U.S. & Canadian butterflies. Many more available. 25¢ postage. James C. Brooks, 194 Riley Avenue, Macon, Ga., U.S.A.

FOR SALE: DITTOED 28 PAGE BOOKLET, "MOTHS ON THE DARK SIDE", explains use of black light to catch moths, charts of times and plant food, methods of rearing and housing larvae; mainly for the beginner. \$1.00 postpaid in the United States and Canada. Colleen Seeley, 47 Woodside Ave., Oneonta, N.Y., U.S.A.

BLACK LIGHTS for moth collecting can be purchased post paid in the United States, 20 Watt light and fixture, no trap, for \$10.00, from Ceramic Service, 9 River Street, Oneonta, N.Y. This notice is being inserted as a service to members in response to numerous requests for a dealer in black lights. Note sent in by Colleen Seeley, 47 Woodside Ave., Oneonta, N.Y., U.S.A.

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Items for inclusion in the NEWS should be sent directly to the Editor of the NEWS, Dr. J. W. Tilden, 125 Cedar Lane, San Jose 27, Calif., U.S.A.

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