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SEASON'S SUMMARY IN THIS ISSUE

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The President and Vice Presidents serve one-year terms; the Treasurer and Council Members serve three-year terms.

\*Dr. Fox has withdrawn his name, as other duties will make it impossible for him to serve. A search is being made for someone to replace him. In the meantime, George Ehle is continuing as Treasurer.

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RESEARCH NOTICE--I am writing a book on the migrations of Vanessa cardui throughout the World, and I wish to give an historical account of the annual invasions into Canada and the USA. I would welcome all records--even of single specimens--in the past 50 years or more, giving data (yr. and mo.), locality & state, and how many. I also particularly want any records of autumnal directional flights giving details as above and direction of movement. Refs. to obscure journals and papers will be appreciated. C. B. Williams, Elm Park Lodge, Selkirk, SCOTLAND.

RESEARCH NOTICE--PHRAGMATOBIA SPECIMENS NEEDED for critical study of the genus (Arctiidae). Especially need to examine specimens from Western States (Calif., Ore., Wash.), Nebr., Iowa & the Rockies. Specimens from Kans., Mo., Ky., W. Va., Va. & the Carolinas would be very desirable. Also urgently need to examine preserved larvae & their associated adults. ALSO, revision of the genus HAPLOA is in preparatory stage. Should like to correspond with anyone who has reared any of this genus, or anyone who can inform me of choice collecting localities & dates. Julian P. Donahue, Dept. of Ent., Mich. State Univ., East Lansing, Mich. 48823, U.S.A.

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MEETING NOTICE--The Oregon State Entomological Society will have its regular meeting at Oreg. State Univ., Corvallis, May 15, with emphasis on Lepidoptera. All lepidopterists are urged to attend. Dr. Dornfeld will report on progress of his book on the butterflies of Oregon. For further details write Dr. E. J. Dornfeld, 3415 Crest Dr., Corvallis, Oreg.

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## NORTH AMERICAN SEASON SUMMARY FOR 1964

ZONE I: CALIFORNIA, ARIZONA, NEVADA, Coordinator: Fred Thorne. Contributors: R. Breedlove, R. Davis, S. Dvorak, T. Emmel, R. Funk, C. Henne, P. Herlan, J. Hessel, W. Howe, N. LaDue, J. Lane, R. Langston, H. Madson, E. Newcomer, P. Opler, E. & S. Perkins, S. Radcliffe, K. Roeber, J. Scott, O. Shields, P. Spitzer, R. Stanford.

CALIFORNIA: Flights began early in mid-state (Pieris napi & Philotes sonorensis, 12 Feb., Santa Clara Co., Langston) but were normal elsewhere except in the southern counties & the Sierra Nevada where prolonged unsettled weather delayed & reduced spring flights. Emergence in summer & fall was generally normal until upset by early cold weather & snow in Nov. It was generally a dry year with collecting below par. Urban sprawl continues to encroach on collecting areas. It was a poor year for migrations altho Emmel reports observing several thousand Danaus plexippus in a eucalyptus grove in Ventura, 2 Jan., in contrast to few seen in Pacific Grove in Dec. Newcomer noted numbers of adults & many larvae on milkweed (Asclepias speciosa) on Fandango Pass, Modoc Co., at 6000', late July.

COUNTY RECORDS OR NOTABLE EXTENSIONS OF RANGE: Abagrotis n. sp., Onyx Summit, 8445', nr. Lake Baldwin, San Bernardino Co., Aug. & Sept. (Henne). Megathymus yuccae martini, 16 mi. E of Onyx, Kern Co., 30 Apr. (Langston). Amblyscirtes vialis, Pine Grove, Amador Co., 12 May (LaDue) & nr. Comptonville, Sierra Co., 27-29 June (Opler). Hesperia harpalus tildeni nr. New Idria, San Benito Co., 27 Aug. (Langston & Opler). Pap. multicaudata, Volcan Mts., S. Diego Co., 23 May (Dvorak). Apodemia mormo mormo, Skylanda, S. Mateo Co., 6 Oct. (Spitzer), & A. mormo virgulti nr. Fairview, Tulare Co., 27 Apr. (northern spring-flying virgulti type, Langston). Philotes sonorensis, Merced River Canyon, Mariposa Co., 14 Apr., (LaDue). Philotes enoptes tildeni nr. New Idria, 27 Aug. (Langston & Opler), & 8 mi. W of Simmler, San Luis Obispo Co., 11 Sept. (Langston). Spey. mormonia arge, Mather 4600', Tuolumne Co., mid-July (unusually low elev., Shields).

CHOICE SPECIES: Hemileuca neumoegeni, New York Mts., S. Bernardino Co., Sept. (Henne). Annaphila littiosina, nr. Downieville, Sierra Co., 17 June (Lane) & A. superba, Yorkville, Mendocino Co., Apr. (Henne). Xylena brucei, Upper Sheep Cr., S. Bernardino Co., 6100', Feb. (Henne). Ochlodes yuma, Sherman Id., Sacramento Co., 25 June (Howe & Davis). Parnassius clodius & phoebus flying together & Colias behrii abundant, Saddlebag Lake, Mono Co., 23 July (Radcliffe). Pap. rudkini, Providence Mts., S. Bernardino Co., 9 Feb. (Emmel), & P. bairdi, 63 larvae on Artemisia dracuncula, Barton Flats, S. Bernardino Co., 29 June to 11 July (Dvorak). Philotes mojave, Juniper Hills & Littlerock, Los Angeles Co., Pinyon Crest Jct., Riverside Co., & Lucerne Valley, S. Bernardino Co., Mar. & Apr. (Henne, Langston, Opler, Thorne). Philotes enoptes smithi, Seaside, Monterey Co., 26 July (Opler). Plebejus neurona, Tejon Mts., 12 July (LaDue). Lyc. phalaeas hypophlaeas, Mt. Dana, Mono Co., 4 Aug. (Shields). Incisalia fotis, 22 Mar., Providence Mts., S. Bernardino Co. (Stanford). Callophrys comstocki, Providence Mts., 11 Apr. (Shields & Dvorak). Strymon a. auretteorum, 4 mi. N of Comptonville, Sierra Co., 27-29 June (Opler). Apodemia mormo tuillumnesis, nr. Hetch Hetchy Dam, Tuolumne Co., 8-13 Sept. (Shields). Spey. egleis clemencei, Chews Ridge, Mont-11-18 June (Lane). Cercyonis p. ariane, form stephensi, Surprise Valley, Modoc Co., 4600', late July (Newcomer).

GOOD COLLECTING SPOTS: Onyx Summit, SW of Baldwin Lake, S. Bernardino Mts., 8445': many sp. of rare moths at black light, Aug. & Sept. including Abagrotis n. sp. (Henne). Dana Plateau, Mono Co., 12,000', 8-10 August: many

good high-altitude sp. (Spitzer). Colson Canyon Camp Ground, Santa Barbara Co., July: good flyway for summer species (Madson).

LIFE HISTORY OBSERVATIONS: Polingia quaestoralis reared on Stephanormeria paucifolia, Graptolitha lemmeri n. sp. on Juniperus californica, & G. georgii holocinerea on Cercocarpus betuloides, & Hemileuca neumoegei on Prunus fasciculata & Rhus triloba anisophylla (all Henne). Erynnis afrainius observed ovipositing on Lotus americanus & Mitoura nelsoni on Libocedrus decurrens at Mather, Tuolumne Co. (Shields). Philotes mojave reared on flowers of Eriogonum pusillum (Henne & Thorne). Scott reports Quercus chrysolepis as host plant of Strymon auretteorum auretteorum nr. Yosemite & Neophasia menapia on Douglas fir, 12 mi. W of Willits, Mendocino Co., 13 July. Opler will publish on life history studies of Anthocaris & Euchloe.

ARIZONA: The spring season was cold, dry & windy resulting in dismal collecting, with such sp. as Anthocaris pima scarce (Hessel). Summer rains were excellent followed by good summer & fall collecting. Libytheana bachmanii flights were small (Funk) and no migrations were reported.

STATE & COUNTY RECORDS: Paratrytone melane vitellina, Madera Canyon, Sta. Cruz Co., 5800' 18 June, 1963 (Shields, det. 1964 by MacNeill). Everes comyntas oomyntas, Cave Cr., Chiricahua Mts., Cochise Co., 10 Apr. (Roever). Polites sabuleti ssp. Tees Nos Pas, Apache Co., 1 July (Roever). County records: Phyciodes texana, Palm Canyon, Kofa Mts., Yuma Co., 14 June (Funk); Habrodais grunus, Pinaleno Mts., Graham Co., 4 July (Hessel).

CHOICE SPECIES: Citheronia splendens & Automeris pamina, common at lights, Pena Blanca Lake, Sta. Cruz Co., 18 July (Roever). Agathymus polingi, Molnia Basin, Sta. Catalina Mts., Pima Co., 12 Oct. (Breedlove). Systasea evansi, Kofa Mts., Yuma Co., 14 June (Funk). Pyrgus xanthus ssp., Flagstaff, 31 May & Oarisma edwardsii, Miller Can., Huachuca Mts., Cochise Co., 15 Aug. (Roever). Pap. thoas ssp. Sycamore Can., Sta. Cruz Co., 16 Aug. (Roever). Hesperia woodgatei, 57 spec., Hualpai Mts., Mojave Co., 5-6 Sept. (Stanford). Neophasia terlooii very common Huachuca Mts., Oct. (Hessel) but scarce Sta. Rita Mts. Sta. Cruz Co. (Hessel, Breedlove). Eurema boisduvaliana, Madera Can., Sta. Rita Mts., 1 Oct. & Baboquivari Mts., Pima Co., 4 Oct. (Hessel). Strymon alcestis osleri, 27 May, & Mitoura xami, 9 Oct., Madera Can., 6200', (Hessel). Anaea aidea ssp., Montezuma Can., Huachuca Mts., 1-12 Dec. (Roever). Asterocampa subpallida, Sabino Can., Pima Co., 12 Oct., (Breedlove). Spey. nokomis nitocris, 16 mi. SE of Alpine, Greenlee Co., 7 Sept. (Radcliffe). Cercyonis meadii, 2 mi. SW Jerome, 26 Sept. (Roever). Oeneis alberta daura, Big Cienega, White Mts., 7 June (Roever). Euphydryas chalcedona nr. klotsi, second brood fresh & common, Pumpkin Center, Gila Co., 3 Oct. (Roever). GOOD COLLECTING SPOTS: Pena Blanca Lake, 10 mi. NW of Nogales, 18 July, several choice sp. (Roever)

LIFE HISTORY OBSERVATIONS: Pyrgus xanthus ssp. observed ovipositing on sp. of Potentilla at Flagstaff, 31 May (Roever). Pap. crespontes larvae on citrus required control measures, Yuma Co. (Radcliffe).

NEVADA: The spring season was cold with poor collecting, & summer flights were just average (Herlan).

STATE & COUNTY RECORDS: Herlan furnished a list of all Rhopalocera in the Nevada State Museum collection. Some of the following 1964 captures may represent new state records: Battus philenor, Eurema nicippe, Coenonympha ampelos columbiana, Neominois ridingsii stretchii, Phyciodes tharos & picta, Melitaea pola arachne, Chlosyne lacinia ssp., Limenitis archippus obsoleta & Atlides halesus (estesi). Henne took a new ssp. of Onococnemis albifasciata 10 mi. N of Winnemucca, Humboldt + in Sept. Roever collected Megathymus yuccae ssp. in Clark Co.

CHOICE SPECIES: Several collectors reported their captures on the Lepidopterists' Society field trip around Virginia City, 20 July, which included topotypes of Lycaena arota virginiensis, Plebejus icoriodes ardea & Speyeria c. nevadensis. Onocnemis iricolor, 10 mi. N of Winnemucca, Sept. (Henne). Spey mormonia artonis, Jarbridge Mts., Elko Co., 4-15 July (Lane) & S. c. harmonia, Pinto Summit, Eureka Co., & Carroll Summit, Churchill Co., 6 July (Scott), also S. nokomis apacheana, common in vicinity of Sweetwater, Lyon Co., 21 Aug. (Shields).

LIFE HISTORY OBSERVATIONS: Shields found larvae & pupae of Banjaminia colorado in Iris missouriensis at Desert Creek, Lyon Co., 7300'.

ZONE II: PACIFIC NORTHWEST. BRITISH COLUMBIA, WASHINGTON, OREGON, IDAHO, MONTANA. Coordinator: E. J. Newcomer. Contributors: C. R. Crowe, E. J. Dornfeld, R. Guppy, D. V. McCorkle, R.E. Miller, C. W. Nelson, E. J. Newcomer, John Pederson, B. & S. Perkins, W. Rogers, J. A. Scott, J. Shepard & R. E. Woodley.

FLIGHT SEASON & WEATHER: On Vancouver Id., winter unusually mild & wet, summer cloudy but not wet. Collecting poor at sea level, good to excellent above 2000 ft. In Wash. & Oreg., spring few days later than normal, considerable cloudy & windy weather; summer cool, collecting good.

BRITISH COLUMBIA: Gippy reports Incisalia mossi & Anthocaris sara plentiful on Vancouver Id., many of the latter dwarfed, perhaps as result of hot spell in May 1963 which caused Arabis plants to seed prematurely.

WASHINGTON: Pederson, Shepard & Woodley collected on Slate Pk., Okanogan Co., in July & Aug., & took a total of 26 spec. of Boloria astarte, prev. known in Wash. only from one or two collected years ago at Cooney Lake by John Hopfinger. Shepard also reports taking B. toddi & freiya in Okanogan Co., new State records. Newcomer took Polites mardon & Hesp. nevada on Signal Peak, Yalima Co., July 6, new records for the Co., altho both have been taken in the State previously. McCorkle took larvae of Call. johnsoni at The Dalles Forest Camp, Pierce Co., August 13. Shepard reports Lyc. editha in Asotin & Columbia Cos., and Phyc. barnesi in Whitman Co. Miller, collecting in the Blue Mts., took Call. sheridani June 20 & Phyc. campestris montana July 12. Newcomer found C. sheridani scarce due to bad weather in April, but C. dumelorum common in May nr. Ft. Simcoe, Yakima Co. Early stages noted were as follows: Call. dumetorum on Eriogonum heracleoides, E. compositum, E. elatum & Hosackia sp.; I. fotis on Sedum; I. eryphon on Pinus ponderosa; Coeno. ampelos on grasses; & Mel. h. manchada on Aster conspicuus.

Miller, at Dayton, took 5800 moths (ca. 120 sp.) at ultraviolet traps. The 10 commonest were: Platyperigia extima, Amathes c-nigrum, Lacinipolia stricta, Euxoa olivia, Leucania farcta, Feltia ducens, Rhynchagrotis exsertistigma, Euxoa spona, Crymodes devastator, & Euxoa messoria in that order. The following were 2-3 times more numerous than in 1963: Euxoa olivia, spona, plagigera, lilloet, terrena, Orthodes communis, Polia laudabilis, Abagrotis sambo, apposita, Rhynchagrotis insularis & Homohadena stabilis. New or rare sp. at Dayton included Onocnemis albifascia, Lomelysis discolor & Euxoa hollemani.

OREGON: McCorkle reported V. carye scarcer than in 1963 in west. Oregon; the Perkins Bros. took a moth, Euthyatriss Lomata in Wash. Co. in March; Cercyonis ariane was common in Marion Co., July 22; Spey. cybele pugetensis, hydaspe & z. bremneri at Bell Mt., Yamhill Co., July 26; Coeno. c. eryngii plentiful at Emigrant Reservoir, SE of Ashland, Aug. 1; S. z. hippolyta, Clatsop Co., Aug. 10 & 23. All W Oreg. In East Oregon, Dornfeld found the usual large numbers at Skookum Mdw., Klamath Co., Aug. 11-14, and a good collecting spot on the Hills Gr. Dam Rd. Lane Co. Nelson took Amblyscirtes vialis at Camp Sherman, Jeff Co. The Perkins Bros. took I. fotis mossii in late March near The Dalles, & the moths Annaphilia mcfarlandi & Litocala sexsignata: 5 Carterocephalus palaemon at Tigard, Wash. Co., May 18-19; Lyc. h. gravenotata in Wasco Co., June, & nr. Kirk, Klamath Co., July 27. Also

Euphydryas a. veazieae at Lonerock, Gilliam Co., June 14; Colias interior at Camp Sherman, Jul. 22 & Aug. 11; Hesp. columbia (1 spec.) Lost Prairie, Linn Co., Aug. 11 & Lim archippus in Sherman Co., Aug. 9. Nelson found blue females of Pleb. saepiolus at Hoodoo Ski Bowl, Jefferson Co., & Lim. bredowi 40 mi. E. of Roseburg, Douglas Co.

Crowe, collecting in Harney Co., took Strymon titus, Lyc. cupreus, Pleb. shasta, Van. virginienis, Euphydryas a. veazieae & bakeri, S. z. cynna & M. artonis, among other things. Newcomer found only a single Neomiois ridingsi in 1964 on Drake Pk. in two visits, but plentiful Cercyonis ariane, including stephensi females, at Crump Lake, 10 mi. N of Adel, July 23-24. Also the latter at Ana Spgs., July 16 & 24. All in Lake Co.

McCorkle reports the foll. early stages in Oregon: Call. dumetorum (?) on Lotus crassifolius; Euph. colon on Symphoricarpos sp.; Pap. Eurymedon on Holodiscus discolor; & Call. nelsoni on Libocedrus decurrens.

IDAHO: Shepard took Bolaria selene in Custer, Valley & Latah Cos., Lyc. editha in Custer, Adams & Idaho Cos., & C. palaemon in Idaho, Custer & Valley Cos. Newcomer collected in Idaho Co. at Lolo Pass & along the new highway (U.S. 12) from Kooskia, Idaho to Missoula, Mont., on Aug. 16; & Scott collected the same route July 22-23. Collecting was poor at lower elevations, but good at and near Lolo Pass. Since this is rather new country, not before readily accessible, the sp. taken are listed: Euphyes vestris, Ochl. sylvanoides, Pap. rutulus, eurymedon, Col. Eury-thema, interior, Strymon titus, californica, saepium, Lycaena mariposa (common), helloides, Lycaeides melissa, Pleb. saepiolus, Lim. lorquinia, Nymph. vau-album (1 spec.), Polyg. faunus, Phyc. tharos, campestris, Euphyd. colon, Bol. epithore, Spey. zerene, hydaspe, mormonia, leto, Coeno. tullia, Cerc. oetus (common), & Erbia epipsodea.

MONTANA: Scott took Spey. leto, Oen. chryxus, Lyc. editha, Polites peckius (?) & other sp. in Missoula Co., July 23; Cerc. ariane, Lyc. rubidus, Spey. z. platina, c. harmonia & others in Beaverhead Co., July 24. Shepard took Mitoura spinetorum & Oarisma garita in Ravallie Co.

ZONE III: ROCKY MT. AREA. ALBERTA, WYOMING, UTAH, COLORADO, NEW MEXICO. Coordinator: Donald Eff. Contributors: Scott Ellis, Dennis Groothuis, R. Hardesty, R. Holland, R. Jae, S. Johnson, John Justice, D. Lawrence, James Scott, K. Tidwell & M. Toliver.

FLIGHT PERIODS & WEATHER: The drought in the Rocky Mt. area continued. The winter of 1963-1964 was substandard in snowfall & moisture, with only March storms alleviating the situation somewhat. April started wet, but quickly dried off, altho continuing cloudy & cool. This caused all contributors to note that flight periods were from two to three weeks late throughout the spring & early summer. There was continued deterioration of collecting, with notations of complete absence of some sp., & a decline in several others. Never have the high mountain areas been as dry in late summer. End-of-the-year moisture & snowfall this winter, however, may herald approach of a wetter cycle & improved collecting.

ALBERTA: No direct reports but drought prevailed except in Peace River area. The following gleaned from correspondence: Hovanitz discovered Oeneis taygete near the Columbia Icefields & later Allan Legge took additional examples, + a few of the very dark, true Bolaria eunomia nichollae. Van Veen also discovered Bolaria alberta in Highwood Pass in the Kananaskis Forest.

WYOMING: We are happy this year to have the reports of two resident collectors, Hardesty & Groothuis, of Douglas. Their reports centered on Converse & Albany Cos., with some information from Fremont Co. Of special note was capture of Papilio nitra, P. indra, Call. affinis, Scolit piasus, P. beckeri & Call. behrii crossi. Also their record of Euph. anicia bernadetta. The type loc. is in Harrison Co., Nebr., just across the line, but this probably not reported from Wyo. previously. Good collecting in Sinks Canyon, Fremont Co., at the Natural Bridge S. of Douglas, & espec. in La Bonte Canyon, Albany Co in the Medicine Bow Nat'l. Forest. Some excellent collecting also found in the North Laramie Range where few collectors, other than Moeck, have been heretofore. Scott, July 25-26, in Lincoln Co., took Lyc. nivalis browni, Boloria kriemhild & Spey. a. tetonia; and in Carbon Co., Pyrgus centaurae, Mitoura spinetorum (very late for this) & Colias scudderii, among others.

UTAH: As usual, Ken Tidwell did a good job here. Season late & dry conditions prevailed, resulting in poor collecting until about July 18, when a compressed season resulted in sort of a population explosion. A more notable capture was Euph. anicia lehmani at Mt. Wheeler nr. the Nevada-Utah border. Speyerias were especially numerous, in the Stansbury Mts., S. e. linda, normally quite scarce, being unusually abundant. Large numbers of Hypaurotis c. citima taken in Payson Canyon, & late summer collecting produced Spey. nokomis in the Pine Mts. in SW corner of the State, & in the Vernal colony. Another good sp. was Call. affinis, & Ken also recorded his first catch of Hesp. uncus in Utah. Boloria kriemhild was absent. Holland took 5 sp. in the Manti-LaSal Nat'l. Forest W of Monticello, July 19. Scott took P. indra & Call. affinis in the Stansbury Mts., July 5; & on Aug. 16, Hypaurotis c. citima in the Blue Mts.

COLORADO: Lateness of the season was shown by the dates of capture. One not very common sp. was surprisingly prevalent this year,--Vanessa virginiensis. Also notable is the reappearance of stray Phoebis sennae & Agraulis vanillae. Jae reports all Oeneis more plentiful than usual, but spring & early summer collecting poor with many things such as Callophrys sheridani & Incisalia mossii schryverii missing completely. A new State record was Colias scudderii ruckesi, taken by Holland in Costilla Co., near Whiskey Pass, Aug. 9. Other items of interest include Amblyscirtes simius, taken by Scott near Round Butte, Larimer Co., June 30; the discovery of a new colony of Spey. nokomis by Ellis in Mesa Co.; Johnson's capture of a Pap. Bairdi in Gregory Canyon, Boulder Co., as well as discovery of numbers of Call. behrii crossi on the Frontier Ranch, near Buena Vista, Chaffee Co.; Lawrence's observation of a new host plant record for Pleb. icarioides, Lupinus amplus, 3 mi. S of Gothic, Colo., at 9000 ft. Eff found Pap. i. minori in more than usual numbers, but just as difficult to capture as always! Ellis found colonies of Megathymus streckeri near Sapinero, Gunnison Co., an area that will be inundated with completion of the Curecanti Project. Scott found Mel. alma common near Pueblo in May, & P. beckeri, which is not common on the eastern slope, in June. Justice found Mitoura siva swarming near Red Rocks Park in early June. There were reports that Lycaena arota schellbachi was commoner than usual & many reports of Mitoura spinetorum. Justice found the latter plentiful near Rollinsville, Gilpin Co., & Lawrence recorded the first capture from Taylor Park, Gunnison Co. Many collectors reported new or good collecting areas, two of which were Cottonwood Pass & Rabbit Ears Pass. The latter is my favorite & difficult to beat for variety & quantity.

Of particular interest this year was the report of moths taken. Justice took Drepanulatrix unicalcararia in Boulder Canyon, possibly an eastern extension of its range. Ellis found good ultra-violet light collecting for Sphingidae & Actiidae; and Justice took about 30 sp. so far identified, among which may be mentioned Sphinx separatus & Anarta melanopa.

NEW MEXICO: Scott collected at Carlsbad, Mar. 23-26, but took nothing special, except Anth. sara. Mike Tolliver, the only resident collector to report, & Richard Holland, who collected with him, reported the season a little late, with some snow as late as April 7 in Albuquerque. The Sandia Mts. were especially productive, with Phoebis sennae & M. spinetorum & siva commoner than usual. There was good collecting in the mountains N of Taos, Polygonia hylas fairly swarming there in Aug. Hyp. crysalus was taken & Lyc. arota schellbachi was common. Sapello Canyon, San Miguel Co., is the type locality for Spey n. nigrocaerulea, but it was not seen. No one seems to have searched this area for it since Cockerell took and named it in 1900. A great variety of skippers was taken at various times & places, the capture of Piruna pirus by these men being of special note. Holland took many moths including Catocala arizonae, verecunda, aholibah, delilah, desdemona, grotiana, violenta & amatrix editha. Among other records: Van. carye more common than last year, Eupt. claudia swarmed, Speyerias mostly rare, S. melinus rare, Atlides halesus not uncommon, & Lept. marina, Hemiargus Isola, & Pap. multicaudata more prevalent than usual, but Pap. p. asterius ampliata less so. And both collectors took Call. behrii crossi which may be a new record for New Mexico.

ZONE IV: GREAT PLAINS--CANADA TO TEXAS JIN THE PLAINS REGION. Coordinator: H. A. Freeman, E. A. Froemel, R. Heitzman, R. Holland, William H. Howe, Ronald L. Huber, Kurt Johnson, Roy Kendall.

SOUTH DAKOTA: Ron Huber reports that he collected four species in the Black Hills (near Rapid City, Pennington Co.) and in the bad lands (near Cedar Pass, Jackson Co.) during June: Papilio zelicaon, Speyeria aphrodite, Speyeria edwardsii, & Euptoietia claudia. One species of Hesperia found, identity uncertain.

NEBRASKA: Kurt Johnson stated that in a series of Poanes taxiles collected near Chadron, Dawes Co., a male Poanes hobomok was found. This appears to represent a western record for that species. He also collected Phyciodes batesi in the same area.

Froemel reported that collecting generally rather poor near Columbus due to several factors; native flora rapidly being depleted, too much crop spraying, drought conditions during winter, early spring and late fall, & too much rain during late spring and early fall. Hylephila phylaeus turned up in fair numbers as did Phoebis sennae eubule, both of which are usually rather rare in that area. A number of small species of Heterocera collected at light trap.

KANSAS: R. Heitzman reported that 1964 was a rather poor year for butterflies. Spring was cool & cloudy a dry period in late summer cut population numbers of many species. Spring: Graphium marcellus, Anthocaris genutia, Euchloe olympia, and Incisalia henrici turneri all scarce. In mid May about 20 final instar larvae of Euphydryas phaeton found on small plants of Indian currant (Symphoricarpos orbiculatus) in brushy areas in Shawnee Mission Park, Johnson Co. Adults uncommon first week in June in several nearby locales. Prairie meadows west of Lawrence, Douglas Co., good in mid June. Speyeria idalia and cybele abundant. Vanessa virginiensis, Lycaena x. dione, Polites origines, Atrytone delaware & Problema byssus common. A large colony of Atrytone arogos found in one meadow. Adults feeding only on the large purple cone flower heads, all other flowers being shunned. Colias cesonia rare this year. Catocala abbreviatella usually common here was absent. Fresh specimens of Hesperia ottoe taken here for a new county record. Strymon edwardsii & Problema byssus again abundant in Johnson Co. but perhaps for the last time, as area where largest colonies are located will soon be destroyed due to construction of new

super-highway. Polygonia progne, Libythea bachmanii and Strymon ontario rare. A few Strymon falacer & Strymon titus collected but Strymon liparops, caryaevorus & E m-album absent. Late summer & autumn collecting poor, & migratory species less common than last season. Phoebis s. eubule, Eurema nicippe & E. lisa as well as Precis coenia all uncommon & no Eurema mexicana have been observed for two years. A worn female Erynnis funeralis collected in June, only the second time the species has been taken in Johnson Co. William H. Howe reported capture of a female Poanes hobomok, June 7, Douglas Co., which apparently is the first authentic recent record for Kansas.

OKLAHOMA: R. Heitzman states that in late May in the Grand Lake area, Craig Co., butterflies were fairly common especially Speyeria cybele, Polygonia interrogationis, Melitaea nycteis, Graphium marcellus & Epargyreus clarus. Some of the better species present in lesser numbers included Asterocampa celtis, Colias cesonia, Strymon falacer, S. ontario, Nastra l'herminier, Erynnis martialis & Thorybes confusis. Single specimens of Amblyscirtes linda & A. belli were caught. A few Wallengrenia otho taken here seem to be intermediate between otho & egeremet. The best catch was two male Erynnis icelus, a new record for the state.

TEXAS: Richard Holland made his annual collecting trip across Texas in June & reported the following information: Reeves Co., June 13, Pholisora catullus; 14 miles south Alpine, Caenurgia crassiuscula, June 13; 9 miles west of Redford, Presidio Co., Phyciodes picta, Kricogonia castalia, Phoebis sennae eubule; 31 miles east Redford, June 12, Phyciodes texana, Calephelis sp.; 9 miles west of Lajitas, Strymon melinus, June 10; Chisos Basin, Cirrhobolina deducta, June 9; vicinity of Boquillas Canyon, Phoebis sennae eubule, Papilio cresphontes, Papilio multicaudata, Colias cesonia, Celerio lineata, Atalopedes campestris, June 8; Sanderson, Apantesis arge, Cressonia juglandis alpina, Cirrhobolina deducta, Feltea malefida, June 7; Dunlay, Medina Co., Melipotis indomita, Phyciodes vesta, Cirrhobolina deducta, Pholisora catullus, Hemiargus isole, Nathalis iole June 7; Bracketville, Asterocampa celtis, Celotes nessus, Pyrgus oileus, June 7; Terrell Co., Celotes nessus, Eurema nicippe, Zizula cyna, Copaeodes minima June 8; Jefferson Co., Melipotis indomita. June 6; Lavaca Co., Battus philenor, Erynnis horatius, June 7.

Ron Huber reports: Papilio thoas, Santa Anna Refuge, Hidalgo Co., April 2; others on same day & location: Eurema lisa, Pieris protodice, Kricogonia lyside, Asterocampa celtis, A. clyton, Phyciodes phaon. Near Hico, Hamilton Co., March 29, Nathalis iole.

Roy & Connie Kendall report: In East Texas during April, Erynnis juvenalis, E. brizo, E. baptisiae, Hesperia metea licinus, Thorybes pylades, Achalarus lysides in fair to good numbers; also two Incisalia nippon & one Lethe creola. In Brownsville area, during mid July, Urbanus procne common & a few Cogia calchas present. During the last week of March in same general area, a few specimens of Vidius perigenes collected. The first week of Oct., same area, several Apodemia walkeri found, & during Dec., Lerodea dysaules, Urbanus procne, Chioides albofasciatus, Strymon simaethis sarita, S. columella istapa, Callophrys miserabilis & Eurema mexicana. At New Braunfels, Nov. 7, collected Ancyloxypha numitor, Achylodes thraso, Achalarus toxeus, Leptotes marina, Calephelis rawsoni, Strymon laceyi. The following life histories were worked out: Erynnis juvenalis, Amblyscirtes vialis, Incisalia hadros, S. s. sarita, C. calchas, U. procne, pyrgus oileus, V. perigenes, Hemileuca grotei, Halisidota cincitipes, H. tessularis & some others. Migration: Great swarms of Libythea bachmanii larvata on October 9 and 10 in Live Oak & Jim Wells Co's. Kricogonia present in these swarms but in lesser numbers.

H. A. Freeman found collecting in Dallas & Tyler areas about normal during the spring. In June, while on the way to Mexico, collecting in Los Fresnos and Brownsville areas found to be very good. In company with Louise & Gilbert Freeman, the following interesting species were collected; good series of Vidius perigenes,



several Mitoura xami, Urbanus procne, one specimen of Panoquina panoquinoides, several Apodemia walkeri & two Lasaia sessilis. In Aug. in same areas same species collected, however V. perigenes was rare then & P. panoquinoides common, & one specimen of Calephelis perditalis was found. At New Braunfels during June several specimens of Calephelis rawsoni, Amblyscirtes celia, Celotes nessus, Nastra julia, Antigonus pulverulenta, & Staphylus mazans collected. Fall collecting in North-Central Texas about normal with perhaps a somewhat smaller migration of Danaus plexippus through that part of the State in Oct. than during 1963.

No reports received from Canada.

ZONE VI: SOUTHEAST - FLORIDA TO LOUISIANA, NORTH TO ARKANSAS & MARYLAND.  
Coordinator: Bryant Mather. Contributors: B. Boscoe, C.V. Covell, Jr., J. R. Heitzman, R. Holland, R. J. Jae, Bryant & Katherine Mather, L. J. Paulissen, J. M. Plomley, G. W. Rawson, G. B. Straley, C. W. Stafford, R. T. & Barbara Taylor, W. H. Wagner, Jr., & C. F. Zeiger.

GENERAL CONDITIONS: Season in western part of zone started about 10 days later than 1963, which was late. Season a out normal in Va. Midsummer hot & dry all over. Fall collecting in south late & in So. Florida extended into January. Building & use of insecticides has reduced abundance of butterflies in places, & hurricanes in Aug. & Sept. only temporarily affected collecting in Florida.

ARKANSAS: Heitzman found collecting fairly good in Benton & Carroll Cos. in May; M. gryneus & S. cecrops especially abundant. E. icelus taken for only the 2d time in the State. Early Sept. poor for butterflies but moths fairly abundant, especially P. sextus & I. mageni. Paulissen reports Lycaenids especially abundant in spring, as were the following moths: Psychomorpha epimenis, Holomelina brevicornis, Apatela lobeliae & Catocala epione. In the fall, Anaea andria & Vanessa cardui were more common than usual; and the uncommon Apantesis figurata was also commoner. New area records included E. ontario, Call. byssus and a dwarf male of Pap. glaucus. Lyc. phleas was taken in Jan., & the following moths were unusual catches: Thysania zenobia, Erebus odora & Errinyis ello.

MISSISSIPPI: Large numbers of moths taken by the Taylors, Mathers & Holland. Among them the following which are apparently new State records: At Hattiesburg: E. pulcherrima, S. d. inclusaria, S. flavescens, L. rectilinea. At Gulfport & Biloxi: A. lobeliae, A. brumosa, A. oblonga arioch, E. m monetifera, D. spadaria, D. graphica, S. apicalis, R. extremaria, M. rufescens, S. coloraria, T. cinctarius, C. manitoba, P. buchholzaria, G. cognataria, M. hypochraria, P. t. incurvata. At Columbus: U. culea, B. australis, T. testacea. In Jackson area: S. quadrinotaria, T. zalissaria.

FLORIDA: A general decline in abundance noted over the past 9 years by Rawson. Plomley reported Lycaenids, Hesperiids, Geometrids & Sphingids notably absent. These collectors & others reported scarcity of some species, including the following: P. phaon, A. celtis alicia, R. flora, S. maesites & m-album, Breph. pseudifera, Batt. polydamas, Pap. ilioneus, Pap. ponceanus, A. monuste. The habitat of Eumaeus atala, discovered 4 yrs. ago, has probably been wiped out by a recreation center. Species particularly numerous included Eup. h. sosybius, Dryas julia (Key Largo, July) Strymon favonius (May), P. s. eubule, philea, agarithe, Appias d. neumogenii (So. Fla.). Asbolis capucinus (becoming a garden pest), P. hayhurstii, M. thetyis. Unusual records

included C. p. pegala & an empty tent of M. cofaqui in Yucca filamentosa (both at Lake Ashby by Rawson), Anartia j. guantanamo seen migrating southward, Nov. & Dec., mouth of St. Lucie River by Stafford. Zeiger believes more collecting needed along Appalachian River, as a "fauna of Appalachian affinities" may occur there.

NORTH CAROLINA: Collecting reported poor in Swaine Co. in July by Boscoe, due to cool weather & drought. Catocalas scarcer than usual, but two new sp. for the area collected: C. vidua & C. amatrix.

VIRGINIA: Wagner found Lephelisca borealis abundant in Montgomery Co., in July; Straleu took an Erora laeta on New River, Giles Co., 7 May, the 2d known spec. from Va., & S. m-album near Eggleston on 21 Aug.

Eugene Munroe described a new pyralid, Aethiophysa consimilis, from Norris Dam & Chattanooga, Tenn., coll. by M. & E. Roshore, July 1959 (Can. Ent. 96:1264:1964).

No other unusual records from Tenn., La., Ala., Georgia or So. Carolina.

ZONE VII: NORTHEAST - Pennsylvania to Maine & Quebec. Coordinator: L. P. Grey. Contributors: W. Boscoe, A. F. Brower, C. Curtis, P. Grey, H. Hensel, R. Holland, J. A. Keji, G. O. Lish, R. May, C. Seeley, A. M. Shapiro, B. D. Williams, M. Zappalanti.

MAINE: Brower, in 1959, expressed the hope that the "abnormally poor" seasons for diurnals in Maine would soon give way to an upswing. A measure of the improvement (?) is his 1964 log of over 2,000 miles of driving & walking, from May 5 to Oct. 26, concentrating on field counts of individuals observed. He recorded 47 species, of which 32 species were represented by 12 or less individuals, often hibernators or migrants. On his total of 74 field trips only the "trash species" were found with any regularity, & these (e.g., rapae, philodice, antiopa, etc.) only in small numbers. In coming years students perhaps will appreciate better the fortunate circumstance that an experienced very active collector was on the scene taking detailed account of this large-scale phenomenon of decrease in populations one quite surely of some major significance, involving many species over a huge area. Working mostly in the "civilized" end of the State, Brower has seen the full impact of whatever "causes" may be deduced for this remarkable shrinkage of butterflies; Grey, too, has seen the roadside & field results drop away, but manages to find fair collecting in the wilder northerly areas. Particularly, the St. John River Valley seems to remain productive; Hensel's collecting grounds near Edmundston, N. B., just across the river from Madawaska, seem not to be the only place where Maine collectors can see diurnals in anything like their former numbers. No report from Quebec is at hand but relative to the Edmundston region it may not be amiss to note that Hensel's big bog just across from the Main-N.B. corner yielded royally this summer. The jutta actually swarmed, by the scores & hundreds (hard to believe, what?). Hensel says that jutta is rare in odd-numbered years, whereas Grey sees no fluctuation of this sort in central Maine colonies. B. eunomia had an unusually good year but E. laeta did not reappear. A good new territory for deep Canadian-Hudsonian conditions was explored by Hensel, a woods road north from Edmundston which produced many Polygonia & suggested possibility of sub-arctic species in season. For Maine, then, aside from Brower's patient attendance at the bedside of the dying, future reports probably will bear Canadian labels!

NEW HAMPSHIRE: Holland has a good record from Hempstead, Rockingham Co., 16 v., of C. hesseli. He notes also a few captures in Massachusetts, of common diurnals.

CONNECTICUT: Williams reports some good nocturnals at black light: C. astylus fairly common for the first time in early to mid-July, a P. pondorus taken July 5. Several good Catocalas, including coccinata and herodius, the latter quite likely a new state record.

NEW YORK: Proceeding southerly the reports devote increasing space to weather conditions believed to have had adverse effects on collecting. The upper end of New England was not too badly hurt by dry conditions which were very bad southerly from Connecticut & apparently reached a climax in Pennsylvania. Reports from Staten Island & Long Island were in pessimistic vein, as usual. Seeley jotted some intriguing items from vic. Oneonta, viz: 1 Erebus odora taken in downtown section, Oct. 12; she reared Arctic caja & noted that the larvae are different both from the Western U.S. & the English form; she reared numerous nymphalids, also noted high (ca.90%) parasitism in larvae found in the field. She had a booth at the N.Y. State Fair & attracted much attention with Monarch pupae she had kept refrigerated to emerge "on order". Unfortunately she kept no record of the number of times the crucial questions were asked: (1) What do you do with them? (2) What are they worth? !

NEW JERSEY: May filed fairly extensive notes on numerous nocturnals & a detailed chart of butterfly captures. He noted 3 A. genutia, May 10, in the Waterloo area, found the best collecting in the Hatfield Swamp (Essex Co.) & Troy Meadows (Morris Co.), saw a few A. lineola near West Caldwell. He observes that tent caterpillars are low. Curtis & Boscoe emphasize effects of the "worst drought in years", & of suborganization; they mention a few good captures including a Strymon edwardsii at light, July 3.

PENNSYLVANIA: Boscoe & Curtis find sugaring was productive in '64, especially for Catocalas. Among other interesting records they mention Inc. irus taken in Pike County, May 16. Shapiro again files an elaborate report taking cognizance of all families of the Macrolepidoptera; these look to be especially good source documents for future workers in Pennsylvania; Grey has been hanging on to most of these but they will all be deposited with Bellinger, eventually. It is regrettable that space limitations prohibit mention of any but probable new county records; interested students are urged to borrow these fascinating papers to see for themselves the wealth of well-organized data. Hesp. metea was taken, new to the Philadelphia area. The first local record of Papaipema arctivorens. From Flourtown, Montgomery Co., a new record of Stiriodes obtusa, & from Erdenheim a Baileya dormitans. Catocala habilis from Glen Mills, Delaware Co., July 15, also a praeclara from Erdenheim, July 7. But even the rash attempt to list new county records will have to be abandoned; they go on & on, & obviously the Society & the coordinator have done their duty in this matter by noting that Shapiro collects many thousands of specimens annually & keeps careful records of them, to which interested persons can have access as needed.

ZONE VIII: THE FAR NORTH. Coordinator: Lee D. Miller, Contributors: D. Eff, J. & A. Legge, W. Phillips, R. E. Woodley.

YUKON TERRITORY: Eff, reporting for himself & the Legges, records late season (2 to 3 wks.) with excessive rainfall in the Yukon, but some notable captures made, such as Boloria improba youngi & Oeneis melissa gibsoni on Eagle Plains, lat. 65°58' N., long. 138°37' W., July 9; Oeneis chryxus caryi at Horse Creek, Mile 12.6, Dawson-Mayo loop north of Whitehorse, June 24; & Boloria frigga gibsoni on North Fork of Klondike Pass, June 27-28. All specimens fresh except caryi. Eff cites three fine collecting spots: (1) Mile 99 of the Haines Cutoff, July 18

(Oeneis jutta, Erebia disa, Pieris napi, Colia palaeno, Boloria freiya, titania & eunomia); (2) Mile 1167, Alaska Highway, July 17 (Colias philodice vitabunda-C. hecla hybrid); (3) Miles 45 to 51, Dempster Highway (North Fork of Klondike Pass), June 27-July 15 (Erebia fasciata & youngi, Oeneis taygete fordii, Boloria freiya, frigga gibsoni & chariclea butleri, Pieris napi & Parnassius evermanni).

ALASKA: Phillips, collecting in the Palmer area, submits the following report: near Palmer at elev. 600', a late spring with snow on ground well into May. Sp. taken include Papilio glaucus, Pieris napi, Colias pelidne, Nymphalis antiopa & milberti, Polygonia faunus & Vanessa atalanta. In the Index Lake area, at elev. 1700', the following sp. taken July 12: Pieris sisymbrii, Colias meadi elis, occidentalis, pelidne & nastes streckeri, Euchloe creusa, Glaucopsyche couperi & Plebeius optilete. Many interesting sp. recorded between July 1 & Aug. 25. from Lazy Mountain at elev. 2500-3000', including Parnassius phoebus, Papilio machaon, Coenonympha mixturata, Speyeria mormonia, Boloria napaea, Oeneis polixenes & Erebia fasciata.

Woodley received material from a friend who had collected in Alaska north of the Arctic Circle. At Anaktuvak Pass (elev. 2150', 68°N, 152°W) Erebia fasciatus (worn), rossii, youngi & disa (streckeri?), Boloria improba & chariclea collected July 8-13. Lycaeides argyronomen was the significant sp. taken at Ft. Yukon, July 15. At Arctic Village many sp. taken, most notable being Lycaena phlaeas feildeni, July 15 & 20. Cape Thompson (68°N, 166°W) yielded Erebia rossii, youngi & disa, Oeneis polixenes, Boloria chariclea, improba & frigga gibsoni, Colias hecla & boothi, July 21 & 23.

ZONE IX: THE NORTHERN NEOTROPICS. Coordinator: E. C. Welling M. Contributors: Dr. Tarsicio Escalante P., Richard Holland, Bryant Mather, Dr. Walfried, J. Reinthal, Gordon B. Small, Eduardo C. Welling M.,

MEXICO: CHIHUAHUA: Holland found collecting more interesting here, Sep. 5-6, than in Baja California at about same time in previous year. Chlosyne lacinia, Phoebis sennae, Libytheana bachmani, Danaus berenice, Battus philenor & Pholisora catullus taken near Chihuahua. Chlosyne lacinia & Zerene cesonia taken near Meoqui, & a dead female of Phoebis sennae found at Buenaventura. Near Ciudad Juarez, Kricogonia castalia, Pyrgus communis, Colias eurytheme, Brephidium exilis and Vanessa virginiensis were captured.

NUEVO LEON: Mather, at Monterrey in March, took the following moths; identified by Dr. F. H. Rindge: Acontia cretata, Eubolina impartialis, Yrias crudelis, Chlorochlamys chloroleucaria, Euacidalia s. sericearia, Protoproutaria laredoata, Sterrhia parvularia, Cosymbia serrulata, Eupithecia miserulata, Semiothisa punctolineata, S. parcata, S. colorata, Glaucina elongata, Acanthophora graefi, & Stenaspilates meskearia.

VERA CRUZ: Dr. Escalante reports collecting normal in the Sierra de San Martin, with a new orange & black Prepona appearing for the first time in Mexico. Due to many cloudy & drizzly days & nights, nocturnal collecting was superb. Welling collected near Palmas, Mpio. Totutla (+1200m.), & found Eurema salome, Pereute charops, Catasticta flisa, Leptophobia aripa, & other items in mid-December.

TAMAULIPAS: Dr. Escalante reports collecting poor near Ciudad Victoria, but some interesting things taken in Aug., i.e., Papilio ornythion & Asterocampa celtis. No Limenitis astyanax seen.

ZACATECAS: Fine series of Pieris protodice taken at El Sauz (+2100 m.) & Zactecas (+2400 m.) during Nov. by Welling. Battus Philenor & Junonia lavinia (?) also seen, in spite of cold weather.

AGUASCALIENTES: Welling saw & captured many Pieris protodice near Rincon de Ramos (+2000 m.) in November.

SINALOA: Dr. Escalante sent collectors to this State from July to Sept., but conditions very dry & almost nothing taken. Welling, arriving in Nov., was also disappointed by virtual lack of butterflies. Only a few things seen, like Victorina steneles, Ascia amaryllis-josepha, Limnas cephise, Papilio thoas, etc., near Culiacan. At Sanalona, a few Thecla damo & Anaea aidea observed. Many worn Parides montezuma seen at Copala (+300 m.), Hemiargus isola & Celastrina argiolus taken at Loberias, Mpio. Concordia (+1950 m.) in November.

NAYARIT: Welling tried collecting near Las Varas in Dec., but few things flying. Some Danaus berenice, Heliconius charitonius & petiveranus, Parides montezuma, Morpho polyphemus, Battus polydamas, etc., seen or taken. Conditions very dry & dusty. Hemiargus ceraunus taken at Tetitlan (+850 m.).

MICHOACAN: In Dec., Welling observed Leptophobia aripa at Uruapan (about +1200 m.). At Acalpican, Mpio. Melchor Ocampo, collecting was tried during same month, with very poor results. Only a few Melitaea theona, Itaballia viardi & demophile, Danaus berenice & other items taken.

MEXICO: Near Stizapan in June, many Anthocharis limones taken; perhaps this is the first great colony seen in 30 years. Apparently this sp. is very local. This report by Dr. Escalante.

QUERETARO: Search made by Welling in Nov. for anything at all but nothing seen. Conditions very dry.

OAXACA: Welling received 15,000 specimens from northern lowlands of Oaxaca. Some Anaea sp. were found more frequently, the same applies for Graphium phaon & branchus. Other sp. seemed scarcer, but great numbers of Papilio thoas, Phoebis philea, & Ascia monuste taken. Limenitis archippus taken at Chiltepec along with Tisiphone maculata. At Vista Hermosa, Mpio. Comaltepec (+1450 m.), Pereute charops, Eumaeas debora, Dismorphia jethys, D. citrinella, Eurema salome, Callicore anna, & a single specimen of Hesperocharis crocea taken. Leucothyris zea & Hymenitis annetta taken at higher legels & at V. Hermosa as well. At Cerro Machin, Mpio, Comaltepec (+2800 m.), Paramecera xicaque taken. At Guelatao (+1800 m.) Papilio garamas, Adelpha bredowi, Hemiargus spp., Eurema दौरa, E. salome & E. xanthoclora seen or taken in early Nov.

PUEBLA: A very fine series of Pindis squamistriga taken at Atlixco (+2000 m.), along with Papilio garamas & victorinus, Colias eurytheme, Leptophobia aripa, & Nathalis iole in Nov. by Welling.

TABASCO: Only Melete isandra seen near Huimanguillo in Dec. by Welling.

CHIAPAS: Dr. Escalante reports collecting somewhat normal near Santa Rosa Comitan, & in municipality of La Trinitaria. Welling, collecting near Chintul, Mpio. Tecpatan (+150 m.), found conditions poor, but anot due to dryness. Equatorial forests almost empty of butterflies. In open spaces, Heliconius charitonius, Ascia monuste, Dryas phaetusa, & a few other things were to be found. A remarkable capture was Eresia clio, first ever seen; another, Anthanassa ofella, could be considered a good take. Poor conditions probably due to lateness of season, as these observations were made in Dec. 1964 & Jan. 1965.

YUCATAN: Welling reports another poor year, in spite of normal rainfall in earlier part of the rainy season. Almost nothing taken.

QUINTANA ROO: Nothing new taken in this territory & at the beginning of the season collecting was slightly below normal. Later in the year, Caligo memnon, Opsiphanes cassina, Nessaea aglaura, etc., made a slight improvement over the past two years.

BRITISH HONDURAS: STANN CREEK DISTRICT: Welling collected here during June, July & Aug., and found collecting superb at Middlesex. Many moths taken, including some unique Sphingidae. Butterflies swarmed in the forests & great numbers of Coea acheronta & Athena chiron were probably migrating, in a southerly direction during June & early July. Three Morpho thesius seen in Aug. & 2 males of Zaretas isidora seen on Aug. 19 in Middlesex. On road to Independence a single Opsiphanes boisduvalii seen in Aug. For the first time in 7 years collecting, Victorina superba was seen. Adelpha salmoneus also abundant but very difficult to catch. Of some 30-40 specimens seen, only 3 caught. At the sap exuding from citrus trees, many fine Nymphalids were taken, & appeared to be commoner than usual.

CAYO DISTRICT: Near Camp Sibun (+150 m.), many Victorina superba seen & taken in Aug., with about 20 other sp. of butterflies & skippers never before seen in the colony, despite 7 years of collecting there. Near San Luis & Augustine Pine Ridge, in the Caribbean Pine-Grassland association, new skippers & satyrids seen & taken in early Sept. One Opsiphanes boisduvalli taken near San Luis in late Aug. All in all, collecting was superb in British Honduras.

GUATEMALA: A few spec. taken at El Ceibal, Mpio. Sayaaxche, El Paten, but no conclusions could be drawn. Some interesting Eunica were taken, as well as the first peninsular records for Melete isandra, Phoebis intermedia, Hypanartia godmani & Heliconius sapho. A Callithomia hexia was finally taken at Sayaaxche.

PANAMA: Small reported from Canal Zone, indicating that collecting was probably poor, and nothing like what expected. Nevertheless, 50 sp. of Ithomidae were taken, among other things. From Jan. to April which is the height of the dry season, many Thecla taken, sometimes as many as 35 sp. in a single day. Small estimates he has 160 sp. of Thecla from Panama so far.

TRINIDAD: Reinthal reports excellent collecting in the jungles of the S & SE parts of the island & also in the Northern Range & around Port-of-Spain, during a 16-day stay. Seasonal rains were late, but vegetation & insects soon responded. About 1,500 spec. taken, including many Heliconiidae, Danaidae & Morpho achilles. Erycinidae & Lycaenidae rather scarce. A few spec. of Caligo eurilochus taken in the cacao plantations.

ST. JOHN, VIRGIN ISLANDS: Reinthal collected here a week & found it good, Danaus plexippus, Ascia monuste, Phoebis sennae, Dione Vanillae & Polygonus leo especially abundant, the last named swarming on some jungle trails.

PUERTO RICO: For the second straight year, Reinthal collected this island, spending most of the time in the Cordillera Central & the eastern parts of the island. No data were given on his findings.

## NOTICES

WANTED TO BUY: Any or all volumes of Seitz, *Macrolepidoptera of the World*, English language edition, in good condition. S. R. Steinhauser, c/o UNTAB, Casilla 197-D, Santiago, Chile.

WILL EXCHANGE: Colias hecla & C. pelidne for Megathymidae. J. Raczkowski, 895 Innswood Dr., Ottawa 13, Ont., CANADA

SELLING: Papered butterflies & moths from Japan & Formosa; & butterflies from Korea; complete price list free. ALSO, "Butterflies of Formosa," co-authored with Dr. Okano. 64 color plates of 270 sp. Check list of Formosan butterflies attached. Price, \$5 including postage. J. Ohkura, 1.566 2-Chome Shimoshakujii, Nerimaku, Tokyo, JAPAN.

WILL EXCHANGE: Butterflies of Nearctic Zone against those from Palearctic. Have many Rhopalocera of SW Europe & N. Africa. Can send list of desiderata. G. Hesselbarth, 457 Quakenbrück, Theis-Str. 24, GERMANY.

FOR SALE: *Conspectus of Japanese Injurious Insects*, by Dr. S. Matsumura. A fine copy in good condition, complete. Many excellent plates, some colored. Peter N. Crow, F.R.E.S., c/o Westminster Bank Ltd., 21, High St., Herpenden, Herts., ENGLAND.

WANTED: Barnes, W. & A. W. Lindsey, 1921. *The Pterophoridae of N. America*. Cont. of Nat. Hist. Lepidoptera of N. A., Decatur, Ill. Buine, B. P., 1952. *British Phralid & Plume Moths*. McDunnough, J. *Contributions Toward a Knowledge of Our Canadian Plume Moths*. Roy. Soc. Canada Trans., Sect. V: 175-88. Please give price & condition when writing. Donald Carlson, 31 Virginia St., Racine, Wisc. 53405.

FOR SALE OR EXCHANGE: New Zealand Hepialids of the Porina genus & the large 4-in. green Hepialid, Charagia virescens, for other Lepidoptera I need. Thos. W. Davies, 791 Elsie Ave., San Leandro, Calif., 94577.

## PUBLICATION NOTICE

LEPIDOPTERA OF FLORIDA, by C. P. Kimball. Vol. 1 of Arthropods of Florida & Neighboring Land Areas; 363 pp., 26 pl. (6 in color), annotated bibliography, gazetteer, indices of food plants, common names, genera, species & subspecies. May be obtained from Librarian, Div. of Plant Industry, Florida Dept. of Agric., Gainesville, Fla., 32601. \$5 per copy, checks payable to Division of Plant Industry, with notation "for Lepidoptera of Florida."

This volume is the first of an irregularly appearing series relating to the insects & other arthropods of Florida, neighboring SE United States, Bahamas, Greater & Lesser Antilles & coastal areas of Gulf of Mexico, with emphasis on taxonomy, ecology, biology & zoogeography.

NEWS ITEM--Malcolm Barcant, Trinidad, sends a very interesting story, published in a Trinidad newspaper, about his success in rearing the Emperor butterfly. This is Morpho peleides insularis (Fruh), the only Morpho in Trinidad. The story is illustrated with 8 excellent photographs of the butterfly emerging from its chrysalid. Mr. Barcant is continuing research on this species in cooperation with the Zoological Society of Trinidad & Tabago, and he has described all the early stages and the feeding habits. He would welcome correspondence with others who may have had any experience in breeding Morphos. Address: Malcolm Barcant, 19 San Diego Park, Diego Martin, Trinidad, W. I.

RESEARCH NOTE -- Needed for monographic study: *Coenonympha* in series from Idaho, British Columbia & Washington. Loan or purchase. Must have accurate date and locality data. No series too long, in fact the longer the better. F. M. BROWN, Fountain Valley Rural Sta., Colorado Springs, Colo., 80907.

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Membership in the Lepidopterists' Society is open to all persons interested in any aspect of Lepidopterology. Prospective members should send the Treasurer the full dues for the current year (\$6.00 U.S.A.) together with their full address and special Lepidopterological interests. Remittances in dollars (U.S.A.) should be made payable to the Lepidopterists' Society.

All members in good standing receive the NEWS of the Lepidopterists' Society which is issued eight times a year and which includes the biennial Membership List, and the JOURNAL of the Lepidopterists' Society which is issued quarterly.

Manuscripts for formal publication in the JOURNAL of the Lepidopterists' Society should be sent to the Editor of the JOURNAL, Dr. J. A. Powell 112 Agriculture Hall, University of California, Berkeley, Calif., U. S. A.

Information on membership in the Society may be obtained from the Treasurer, George Ehle, 314 Atkins Ave., Lancaster, Pa., U. S. A. Changes of address should be sent to the Treasurer at the above address. Please do not send requests for membership nor changes of address to the Editors of the NEWS nor the JOURNAL.

Items for inclusion in the NEWS should be sent directly to the Editor of the NEWS, E. J. Newcomer, 1509 Summitview, Yakima, Wash., 98902, U. S. A.