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Terms expire December 1970:	Dr. J. F. Gates Clark (Washington, D.C., U.S.A.)* Barry Wright (Lunenburg, N.S., CANADA)*

* Newly elected officers.

The proposed amendment to the Constitution, which was published in the 15 October, 1967, NEWS was voted on favorably.

The new officers are to be congratulated on their election, and we thank the outgoing officers for their services.

ANNUAL SUMMARY IN THIS ISSUE

At the time of going to press, reports had not been received from Zones VIII or IX. If they are received later, they will be included in the 1 June NEWS.

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. Notices should be sent to the Editor and should reach him at least two weeks in advance of publication date for any particular issue of the NEWS.

WANTED: Current price lists and all subsequent revisions from Society members having Lepidoptera (particularly Rhopalocera) for sale. Am in the process of compiling a consolidated list to be made available to the membership for use in locating particular specimens and sources at the best prices. J. R. Dalpis, 16 Scarsdale Drive, Camp Hill, Pennsylvania, 17011, U.S.A.

WANTED: Information on state records for any species of the family Pieridae. Do not send information for a state which has had a recent faunal treatment. Not interested in county records. Paul A. Opler, 1131 E. Tenth St., Albany, Cal., 94710.

FOR SALE: 500 bred cocoons of S. cynthia, 35¢ each. Minimum order \$5 plus 50¢ postage. Donald J. Lennox, Jefferson, N.H., 03583.

FOR SALE IN SEASON: Fertile ova of many species of butterflies and moths. Guaranteed viable. List on request. Duke Downey, Box 558, Sheridan Wyo., 82801

FOR SALE: Papered Formosan butterflies, moths, beetles and other dried insect specimens in large quantity. Cocoons of Attacus atlas and Saturnia pyretorum and pupae of Papilio aeacus kaguya available in large quantities in season and offered to quantity buyers only. Ova of Attacus atlas available in season in large quantity. Mrs. Chang Pi-Tzu, P. O. Box 873, Taipei, FORMOSA.

WANTED: 4 males and 4 females of Callithea sapphira. Please state price and condition. Also need specimens of genus Agrias. Interested in contacting members interested in neo-tropical Lepidoptera especially Ecuadorian. Jan Roger van Oosten, 1221 - 22d East, Seattle, Wash., 98102, U.S.A.

WANTED: For exchange purposes, most species of native U. S. butterflies as well as many Spingidae and some Saturniidae. Must be A-1 with collecting data. Will buy in quantities of 5 to 15 each. Send lists with prices. L. N. McLean, R. D. 3, Richfield Springs, N. Y., 13439.

WANTED: Good series of American Papilio and Parnassius. Please send price list of what you have available. Wm. Vokoun, Box 84, Belmont Br., Downers Grove, Ill., 60515

WANTED: Wright's "Butterflies of the West Coast." Will buy or trade good copy of Holland's Moth Book or vol. 3 (the plates) of Scudder's "Butterflies of the Eastern U. S. and Canada." Richard Heitzman, 3112 Harris Ave., Independence, Mo., 64052, U.S.A.

WILL COLLECT or exchange any Wisconsin species for Papilios of the World, including Ornithoptera. Robert Wuttken, 2100 W. Colfax Pl., Milwaukee, Wis. 53209, U.S.A.

FOR SALE AND EXCHANGE: Silkmoth ova, --cecropia, polyphemus, promethea, cynthia, luna, io, --in lots of 50 and 100. Robert Colborne, Box 5403, Duke Sta., Durham, N.C., 27706. (After June 1: Box 241, Zaleski, O., 45698.

FOR EXCHANGE: Ova and pupae (after June) of Papilio glaucus troilus, asterius, etc., for any other Papilio, esp. palamedes and machaon complex, or will buy. Robert Colborne, Box 5403, Duke Sta., Durham, N. C. 27706. (After June 1: Box 241, Zaleski, O., 45698.

WANTED: Living pupae of Saturnidae, Sphingidae, Papilionidae and other butterflies and moths, as well as other living stages of many species (ova best for export) from all world suppliers including Britain. Lists of papered and set Coleoptera, rare and common butterflies, moths and other insects, all apparatus, equipment and books now available from the most contemporary and oldest established farm. Will need wild U.S.A. and perhaps bred, cocoons and pupae in Fall of 1968, also perfect papered showy butterflies and moths. The Butterfly Farm Ltd., Bilsington, Ashford, Kent, ENGLAND

WANTED: Large beetles from Africa, Indo-Australia and the Americas. Henry Hensel, care of Mr. Herbert Matissek, 8011 Poing, Welfenstr., 16, Germany, B. R.

NEW MEMBERS

BERGSON, Charles S.	4601 Penhurst St., Philadelphia, Pa., 19124, U.S.A.
BURNETT, Sgt. Charles Michael	Box 11554, C.M.R. #1, Langley AFB, Virginia, 23365, U.S.A.
COWAN, Lt. Col. C. F. Cowan, F.R.E.S.	Little Gaddesden House, Berkhamsted, Herts., ENGLAND
FULLER, Samuel L. H.	Wooster School, Danbury, Conn., 06810, U.S.A.
HILL, Robert R.	117 Charing Rd., Rochester, N. Y., 14617, U.S.A.
HOVTZ, William	R.D. #1, Schuylkill Haven, Pa., 17972, U.S.A.
HUTCHINSON, Kerry K.	333 No. Duane Ave., San Gabriel, Cal., 91775, U.S.A.
JOHNSON, Carol Ann	2519 Elkhart Rd., Goshen, Ind., 46526, U.S.A.
KEIPER, Ronald R.	Graduate Student in Zoology, Dept. Zoology, Univ. Mass., Amherst, Mass., 01002, U.S.A.
LINDSAY, S. Alan	Box 181, Deep River, Ont., CANADA
MacANDREWS, A. H.	740 Juniper Ave., Boulder, Colo. 80302, U.S.A.
MAYBEE, Leroy A.	3038 Erie St., Toledo, O., 43611, U.S.A.
MUTING, Prof. Dr. Med. Dieter	1. Medizinische Fakultät der Universität des Saarlandes, Homburg, Saar, GERMANY
RICHARDSON, Jay W.	Rt. 2, West Grove, Pa., 19390, U.S.A.
SEYMOUR, George Edward	5 View St., Camden, N.S.W. 2570, AUSTRALIA
SHIELDS, William X.	Wooster School, Danbury, Conn., 06810, U.S.A.
SORG, Dennis H.	2401 Carlmont Dr., Belmont, Cal., 94002, U.S.A.

NEW MEMBERS Cont.

TORBEET, Thomas Brian
WILLIAMS, James J.
VARI, Dr. L.

C.U.Box 6155, No. Ariz. Univ., Flagstaff, Ariz, 86001, USA
812 East Thompson, Sapulpa, Okla., 74006, U.S.A.
Transvaal Museum, Box 413, Pretoria, Tvl., SOUTH AFRICA

NEW ADDRESSES

BUZZANCA, Dr. Eng. Eduardo
DUNLOP, Dr. David J.

C1/Marcenado 46, 7^o/B, Madrid 6, SPAIN
Div. of Geomagnetism, Geophysical Inst., Univ. of Tokyo,
Tokyo, JAPAN

JOHNSTON, Jesse
KNIGHT, Sp/4 Kenneth R.

1740 Ball Rd., #3, Anaheim, Cal., 92804, U.S.A.
Co. A, Sig. OP. Bn. CENTAG, APO, New York, 09166,
U.S.A.

NEFF, Richard H.
PYLE, Robert M.
THELANDER, Jann G. (Sgt.)
VAN BUSKIRK, Michael

409 E. King St., Shippensburg, Pa., 17257, U.S.A.
6015 N.E. 64th St., Seattle, Wash., 98115, U.S.A.
Box 537, Osceola, Wis., 54020, U.S.A.
4512 - 47th S.W., Seattle, Wash., 98116, U.S.A.

NEWS NOTES

Julian P. Donahue, a member of the Lepidopterists' Society since 1960, has served as Executive Secretary of the Michigan Entomological Society from 1964 to 1968. On 23 March 1968 he was succeeded by M. C. Nielsen, also a member of the Lepidopterists' Society. Mr. Donahue's interests include the taxonomy (adult and larval), evolution and distribution of North American Arctiidae and Oriental butterflies. He is working on a Ph.D at Michigan State University, his research project being a revision of the arctiid genus Haploa. He will continue on the editorial board of THE MICHIGAN ENTOMOLOGIST. Mr. Nielsen's primary interests are the biology, ecology and distribution of Michigan butterflies, Noctuids and Sphingids.

Mr. Edward G. Voss advises that Dover Publications will publish a paperback reprint of Holland's Moth Book. This has been confirmed by Dover and further information on it will be given when it has been received.

A member has advised that S. K. Sircar, Naturalist, Shillong 1, INDIA, has for sale a complete aberration of P. philoxenus male and a partial aberration of A. lidderdali male. The price will stop most of us: \$150 for the partial and \$400 for the complete aberration!

BUTTERFLY AUCTION: We had a story in the 1 December NEWS about the Paris auction of the famous collection of the late Eugene LeMoult. Sometimes we read such a story and wonder about the outcome. Mr. Dominick J. Pirone has very kindly sent us a clipping from the NY Times of Feb. 9th, which tells the story. The headline is "Flock of Butterfly Aficionados Bid Spiritedly at Paris Auction," and the story starts out: "It was a bull market for butterflies. A million or so, including a moderate number of counterfeits, went on sale Monday at the Hotel Drouot." It was standing room only, "bidding between members of LeMoult's family and Americans was lively and total sales reached \$60,000. Lee Miller, biologist from the Catholic University of America, was an active bidder, buying for Arthur Allyn, owner of the Chicago White Sox." The counterfeits? Mr. Lemaire who conducted the auction, explained that "Mr. LeMoult was something of a practical joker and would occasionally paste female wings on male butterflies. These are known as humbugs."

And along that line, our members can avoid being called humbugs by being scrupulously honest in all their dealings with other members. We get very few complaints, but do occasionally get one,-- somebody forgot to pay for what he ordered, or didn't get what was paid for, or claimed damage to material which occurred AFTER he got it, etc. Considering that we have over 900 members all over the world, the complaints are surprizingly few. Let's make them fewer!--Editor.

SPECIAL NOTICE

NEW MEMBERSHIP LIST

A new List of Members of The Lepidopterists' Society will be issued about 1 September, 1968. If you desire any changes in your present listing, please send them to the Secretary:

Dr. John C. Downey,
Department of Zoology,
Southern Illinois University,
Carbondale, Illinois, 62901, U. S. A.

If you have joined since the last list was issued (January 1967), please send Dr. Downey your correct address and also any collecting interests you may wish to have listed. You may indicate the groups you collect, as well as whether you wish to exchange, buy or sell. Here are three examples of such listings:

RHOP. MACRO. Variation, Behavior. Coll. Ex.

RHOP: Nearctic and palearctic, esp. Canadian and Arctic life zones. Also rare Indo-Australian Ornithoptera. Coll. Ex. Buy. Sell.

LEPID: esp. Papilio, Nymphalinae; Central European, Indonesian.
Coll. Ex. Buy.

Please try to keep the listing, exclusive of name and address, to not over two typed lines; and please use the following abbreviations:

LEPID	All Lepidoptera	esp.	especially
RHOP	Rhopalocera (butterflies)	Coll.	Collection
MACRO	Macroheterocera (moths)	Ex.	Exchange
MICRO	Microlepidoptera		

DO IT NOW! Next list will not appear for two years. Listings must reach Dr. Downey by 15 June, 1968.

NORTH AMERICAN ANNUAL SUMMARY FOR 1967

ZONE I: NEVADA, ARIZONA, CALIFORNIA.

Coordinator: Fred Thorne. Contributors: D. Bauer, R. Breedlove, K. Brown, H. Edgecomb, S. Ellis, J. Emmel, R. Funk, C. Goodpasture, G. Gorelick, Wm. Hedges, C. Henne, P. Herlan, Wm. Howe, K. Hughes, N. LaDue, J. Lane, R. Langston, R. Leuschner, B. Mather, P. Opler, J. Roberds, K. Roever, A. Rubbert, O. Shields, and R. Wielgus.

MIGRATIONS: 1967 was one of the poorest years on record. Tropical migrants were below normal in Arizona, notably large Pierids.

NEVADA: 1967 was a tip-top year for collecting in Nevada (Herlan), as the following records show. Many new state records are included.

MOTHS: *Nasusina minuta*, *Semiothisa colorata*, *Glaucina baea*, *Synglochis perumbraria*, all Mercury, Nye Co., 18 and 19 May (Mather, det. Rindge). *Hemileuca nevadensis* larvae, Washoe & Lyon Co., July and Aug., and *Coloradia pandora*, 27 Aug., Glenbrook, Douglas Co. (Bauer).

LIFE HISTORIES: *Hemileuca burnsi* larvae on *Dalea fremontii* var. *johnsonii*, Valley of Fire State Park, Clark Co., 11 May (B and H).

BUTTERFLIES: Note: B-Bauer, H-Herlan, L-Lane, ESE-Emmel, Shields, and Ellis, O-Opler. *Megathymus yuccae* ssp., Dead Mts., Clark Co., 7 Mar. (H). *Pseudocopa eunus*, Eagle Val., Ormsby Co., 19 July, (H). *Pholisora L. lena*, 12 mi. N Gerlach, Washoe Co. 10 July (B). *Pyrgus scriptura*, Logandale, Clark Co., 28 Sept. (H). *Parn. c. altaurus*, Marlette Pk., Carson R., Washoe Co., 26 July (H). *Pap. rudkini clarki*, Logandale, Clark Co., 28 Sept. (H). *P. multicaudata* and *Pieris napi* ssp., Jarbidge, Elko Co., 27-29 June (L). *Anth. cethura*, Beatty, and *c. caliente*, Amargosa Desert, both Nye Co., 24 Mar. (B). *A. pima*, Dead Mts., Clark Co., 7 Mar. (H). *A. lanceolata* and *Euch. h. hyantis*, Carson R., Washoe Co., 18 June (O). *Apod. m. mormo*, numerous records, Carson City-Reno area., 27 Aug.-14 Sept. (B and H) and *A. m. deserti*, Amargosa Desert, Nye Co., 17 Apr. (B). *Atlides halesus*, Kingsbury Grade, Douglas Co., 15 Oct. (B). *Call. affinis*, Jarbidge, Eldo Co., 27-29 June (L). *Lyc. editha*, *rudidus*, *nivalis*, *helooides*, 10 Aug. (ESE), and *cupreus*, 27-29 June (L), all near Jarbidge, Elko Co. *Pleb. shasta*, Ruby Mts., 11,000' Elko Co., 8 Aug. (ESE). *Phil. speciosa*, Amargosa Desert, Nye Co., 17 Apr. and near Lida, Esmeralda Co., 22 May (B). *Scol. p. daunia*, Angel L., Elko Co., 1 July (L). *Limenitis hybrid fridayi*, Powell Can., Waussuck R., Mineral Co., 11 Sept. (B). *Chlos. l. nigrescens*, Logandale, Clark Co., 28 Sept. (H). *Mel. neumogeni*, Amargosa Desert, 17 Apr. (B). *M. acastus*, near Reno, 17 June (O). *M. alma*, Meadow V., Lincoln Co., 4 May (B). *Euph. chalc. macglashanii*, W of Carson City, 18 June (O and H). *E. e. nr. hutchinsi*, Jarbidge, 27-29 June and *editha* ssp., Lamoille Can., Ruby Mts., 30 June (L). *Spey. atl. greyi*, Island L., Ruby Mts., 8 Aug. (ESE). *S. z. carolae*, Kyle Can., Spring Mts., Clark Co., 31 Aug. (late) (ES). *Coen. o. mono*, Corey Pk., Mineral Co., 13 July (H).

In Granite Range, Washoe Co. *Hesp. lindseyi*, *H. uncius macswaini*, *Euph. e. edithana*, *Spey. c. laura*, 4 July, and *Neom. ridingsii* 12 July (B and H).

Mt. Wheeler, White Pine Co. 11-12,000', *Euph. e. near nubigena* (smaller, flight later, higher el. than *lehmani*), *Colias eurytheme* and *philodice*, *Incis. eryphon*, *Pleb. shasta*, *Oen. chryxus*, 1 Aug. (ESE); and *O. chryxus*, *Euph. E. lehmani*, *Spey. e. uthaensis*, 30 July (B and H).

Santa Rosa Range, Humboldt Co., *Lim. hybrid fridayi*, 2 spec. where *lorquini* and *weidemeyerii* absent, *Neom. ridingsii*, *Pap. zelicaon*, *Pleb. shasta*, *Stry. saepium* and *californica*, 11 Aug. (ESE); *Spey. z. cynna* and *hybrid fridayi*, 9 Aug. (H).

Toiyabe Range, Kingston Can., Lander Co., *Euph. e. near monoensis*, *Phyc. mylitta*, *Inc. eryphon*, *Mit. siva*, 18 June; *Mel. acastus*, *Phil. enop. ancilla*, 2 July (L). *Pap. indra*, *P. brucei* larvae on *Artemisia dracunculul*, *Phyc. mylitta*, 5 Aug. (ESE). *Spey. e. utahensis*, 31 July (H). Big Cr., Lander Co., *Col. alex. emilia*, *Pleb. saep. gertschi*, 14 July (H) Bunkerhill Pk., *Spey. n. apacheana*, 5 Sept. (H). Jeff Can., 6500', Nye Co., *P. indra*, *Phyc. mylitta*, *Mel. palla*, 3 Aug. (ESE).

Mt. Jefferson, Toiyabe R., Nye Co., alpine tableland, 11,000', *Col. alexandra* and *eurytheme*, *Pleb. shasta* and *acmon*, *Nymph. milberti*, 4 Aug. (ESE); *Neom. r. stretchii*, 14 July (H).

ARIZONA: Dry, mild through Feb., spring was cold with season delayed 2-3 weeks. Summer rains early, season advanced and collecting was good to excellent. (Roever).

MOTHS: No reports.

BUTTERFLIES: R-Roever, F-Funk, H-Hughes, W-Wielgus.

Ag. neumogeni, Woods Can., 26 mi. S of Flagstaff, pupae in Agave parryi 10 Sept., em. 20-27 Sept.(F). A. baueri, N of Sunflower, Maricopa Co., 8 Sept.(W). Meg. yuccae ssp. ovipositing on Yucca sp., Whiteriver, Navajo Co., 6 May (R). M. streckeri, Winslow, Petrified Nat. Mon., Joseph City, all Navajo Co., 26 May, and Flagstaff, 25 June(R). Amblyscirtes cassius and fimbriata, Chiricahua Mts., 1 July, and A. eos, Nogales, 2 July(R). Ochlodes snowi, Bill Williams Mt., 20 Aug.(R). Polites s. chusca, Parker, 5 Sept.(R). P. draco 9300' White Mts., 28 May(R) and Kaibab Plat., 18 June(F). P. themistocles, Promontory Pt., Coconino Co., late Aug.(F). Hesp. uncus, Flagstaff, 4 and 25 June and Chino V., 20 Aug.(R). H. susanae, Promontory Pt. and Horseshoe Cienega, Apache Co., late Aug., and San Francisco Pks., 16 Sept.(F). H. woodgatei, Young, 8 Oct.; S Rim Grand Can., 8 Oct.(R). H. nevada 9300' White Mts., 28 May and H. juba, S of Jacobs L., 3 June(R)., also Kaibab Plat. 18 June(F). H. p. pahaska, Walnut Can. nr. Flagstaff, 2 July, and pahaska and viridis 7 Aug.(F). Yvretta carus, Nogales, 2 July(R). and W of Patagonia 31 Aug. and 3 Sept.(H). Piruna pirus, San Fran. Pks., early July, and P. polingi, Promontory Pt., late Aug.(F). Pyrgus xanthus, White Mts. 9300', 28 May(R) and Walnut Can., 23 Apr.(F). P. o. philetas, Madera Can., 1 Sept.(H). Erynnis scudderi, Chiricahua Mts., 1 July(F). E. persius, Coconino Co., Aug.(F). Straphylos ceos, Cottonwood, 9 July(F). Pap. bairdii, Flagstaff, San Fran. Pks., Mingus Mt. (larvae on Artemisia dracunculul) June-Aug. (R, F, and Rubbert). P. multicaudata, Chiricahua Mts., 1 July(W). N. menapia, July-Aug., Flagstaff(F). P. napi ssp., White Mts., 6 May and rapae, Cottonwood, 9 July (rapae rare in Ariz. R). Eur. boisduvaliana, Baboquivari Mts., 11 Oct.(R). Euch. hyantis Cochise Stronghold, 24 Feb.(R). Apod. m. mormo, Whiteriver, 28 May(R). Leph. nemesi, 5 mi. NW Black Canyon City, Yavapai Co., 28 Oct.(W). Emesis z. ares, Sycamore Can., Yavapai Co., 8 Apr.(F). and Patagonia, 2 Sept.(H). Hab. grunus, 22 June(R) and Hyp. crysalus, 15 July(W) both Oak Cr. Can. Inc. Iroides, Cochise Stronghold, 24 Feb.(Early, R), and I. eryphon, White Mts., 6 May (R) and Coconino Co., early June(F). Call. apama, Flagstaff, 4 June(R). Pleb. a. rustica, San Fran. Pks., early June (F). Phil. e. dammersi and rita, sympatric 8 mi. E of Fredonia, 30 Aug. (Emmel and Shields). Anaea andria, Cottonwood, Patagonia, Arivaca, Aug. Sept.(H), and sympatric with a single aidea, Madera Can., 17 Oct. 1966(Brown). Astero. c. montis, leilia and subpallida, Baboquivari Mt. 11 Oct.(R) and Arivaca, 3 Sept(H) and montis, Montezuma Well, 9 June (F). Lim. a. obsoleta, Wickenburg 11 June and Cottonwood 9 July(R), 29 July (Rubbert), Arivaca, 3 Sept.(H), and Oak Cr. Can., 19 Sept.(F). P. faunus, Ditch Camp, White Mts., 6 May(R). Mel. t. bolli, Whiteriver 6 May and fulvia, Superstition Mts., 23 Sept.(fall brood, R). Euph. c. hermosa, Sycamore Can., Yavapai Co., 8 Apr. and E. a. magdalena, White Mts., 29 Aug.(F). Spey. n. nitocris, White Mts. males only Aug. 20(W), very common 28-30 Aug.(F and H). S. m. luski, 8 mi. E of McNary, 20 Aug.(W). Eupt. r. cheneyorum, vic. Ruby, Santa Cruz Co. 3 Sept.(H). Par. xicaque, Chiricahua Mts., 1 July(R and W) and Huachuca Mts. 12 Aug.(F). Cerc. p. olympus, Oak Cr. Can., 14 July(F) and 29 July (Rubbert). Oen. a. daura, White Mts., 6 May, and San Fran. Pks., June(R and F).

LIFE HISTORY: Melitaea fulvia reared from ova found on Castilleja integra, Flagstaff, in June(Funk).

CALIFORNIA: Jan. Feb. warm, Mar. Apr. May cold and wet delaying early summer flights a month; balance of year normal except for below average desert rains in winter and above average in summer.

MOTHS: Leuschner collected at Pinyon Crest, 4000', Riverside Co. Feb.-Nov. without finding a great deal new or interesting. Notable were Europhila pectinata (topo-types, Feb.), Pterotaeta sperryae (June); Oncocnemis benjamani, Glaucina magnifica, Cochisea sonomensis, and Synaxis formosa (Oct.), and a new Lithophane in Nov. At Tom's Place, Mono Co., an exceptional night, Sept. 2, yielded 350 macros and a more normal 100 Sept. 3, including 118 species (81 noctuids and 33 geometers). Exceptional were a series of male Apantesis nevadensis with jet black thorax, Amemoria unitaria, Stamnoctenis modocata, Catocala californica, stretchi and nevadensis, Euxoa 25 spp., Feltia evanidalis, Oncocnemis dunbari and cibalis, Eurois argni and Emmedonia demaculata. Goodpasture collected 115 geometers, ident. by Rindge, and reported by Mather, in the Providence Mts. and other arid areas 11 Feb. 6 Apr., including "some most interesting things", list on file with the season summary. Howe and Wielgus took Plataea personaria and Drasteria divergens 5 and 6 June and Langston took Epirrhoe plebeculata 21 Feb. at Alum Rock Park, Santa Clara Co. Langston took Annaphila decia and Adela trigrapha SW of Lake Berryessa, Napa Co., 16 Apr. and Litocala sexsignata, Leptartica californiae, and Dasyfodonia avuncularia on No. fork Stanislaus R., 1 and 2 July (late). LaDue took a single Annaphila casta at Plantation Sonoma Co. 8 May. Henne Caught Heliosea celejio near Pope Val., Napa Co. in May. Roberds found Arachnis picta in No. Redondo Beach again, not seen for 20 yrs.

LIFE HISTORIES: Henne has completed life histories of Annaphila casta and lithosina, Dasypoda l. luxuriosa, Lycomorpha regulus and Xanthothrix neumogeni.

BUTTERFLIES: Amblyscirtes vialis W of Downieville, Sierra Co., 17 June(Opler). Hesp. columbia, Posser Mt. nr. Alpine, San Diego Co. 7 and 19 May(Hedges). H. pahaska martini, New York Mts., San Bernardino Co. Sept. (Henne and Roever). H. h. tildeni, Del Puerto Can. 22 mi. W of Patterson, Stanislaus Co. 28 Aug.(LaDue). H. h. dodgei, Pt. San Pablo, Richmond, 16 Sept.(Langston). Carterocephalus p. mandon, Plantation, Sonoma Co. late May (LaDue). Erynnis icelus, Yuba Pass, Sierra Co. 17 June(Opler). Thorybes diversus, Kyburz, El Dorado Co. 27 June (LaDue). Parn. clodius, Bear Cr. Ranger Sta., Lake Co. 24 June (Opler). Pap. p. philenor, New York Mts.(Roever) and Scissors Crossing, San Diego

Co. (Thorne), both Sept. 4. P. rudkini, N. Y. Mts. 4 Sept. (Roever) and hundreds of larvae at Scissors Crossing 16 Sept. 8 Oct. (Breedlove, Hedges) and at Granite Pass N of Amboy 7 Oct. (Hedges). P. bairdii 260 larvae Barton Flats area 9-10 Sept. (Hedges and Thorne), 58 larvae 22 July (Rubbert), also larvae 9100' Onyx Pk. 6 Sept. (Emmel and Shields) all San Bern. Mts. Colias barbara, vic. Pendola Ranger Sta., Sta. Barb. Co. 9 Apr. (Lane). C. a. edwardsii, Hallelujah Jct. 17 June (Gorelick and Opler). C. o. chrysomelas W of Stronghold, Colusa Co. and near Hobergs, Lake Co. 24 June (Opler). C. eurydice colony near Redding weak (Edgecomb). Euch. hyantis, Amer. R. nr. Auburn 1 May, Lake Tahoe 26 June (LaDue) and sympatric with ausonides Hallelujah Jct. Lassen Co. 17 June (Opler), and N Fork Stanislaus R. 2 July (very late, Langston). Apod. m. marmo, small dark, DelPuerto Can., Stanislaus Co. 9 Sept. (Langston). M. spinetorum, Alum Rock Park, S. Clara Co. 28 Feb. (early! Gorelick). M. loki very common vic. Lake Mathews, Riverside Co. 5-19 Mar. (Gorelick, Hughes, Lane). Inc. f. fotis abundant Gilroy Can., Providence Mts. 23-25 Mar. (Hughes, Lane); I. f. windi, Sierra Butte, Sierra Co. 8 July (Opler); f. ssp. San Bruno Hills, San Mateo Co. 5-19 Mar. (Wielgus) and E of Ignacio, Marin Co. 30 Apr. (Opler). I. eryphon Dawson Saddle, San Gabriel Mts. L. A. Co. 4 July (Hughes). Gorelick extended the range of Call. viridis from Pt. Arena to 18 mi. N Ft. Bragg, but not into Humboldt Co., 9-12 June, and found dumetorum 1 mi. W Sattley, Sierra Co. 17 June. C. comstocki common Gilroy Can. (see fotis), also fall brood nr. Aguerreberry Pt., Death Val., And Horsethief Spr., Kingston R. (with Pleb. acmon!), San Bern. Co. 3-4 Sept. (Emmel & Shields). Stry. auretteorum common W of Williams, Colusa Co. (no date, Opler). S. avalona, Avalon, Catalina I., 9 August (Thorne). S. simaethis, 8 spec. Mason V., San Diego Co. 11-27 November (several collectors). Lyc. m. melissa NW of Mt. Shasta 8 and 15 August (LaDue). Pleb. neurona abundant 1 mi. NW Lake of the Woods (nr. Mt. Pinos) 18 August (second brood, Lane). Phil. e. bayensis, Contra Costa, Marin, and Solano Counties May June; and P. e. tildeni, topotypes, DelPuerto Can., Stanislaus Co. 9 September (Langston), and spring brood! 23 May (Gorelick). N. antiopa ab. hygiaea, N Redondo Beach 16 September (Roberds). Phyc. myllita Jawbone Can. N of Mojave 2 September (desert! Emmel & Shields). Euph. chalcedona ssp. with nubigena, Leavitt Pk., Mono Co. 29 August (Opler). E. e. editha abundant 11 mi. SE of Sta. Margarita, S. L. Obispo Co. 10 June (Rubbert), absent 17 June (Hughes). E. e. augusta abundant vic. Moonridge & Green Can., San Bern. Mts. 24 June - 1 July (Breedlove, Hedges, Rubbert). E. e. baroni nr. Bear Cr. Lake Co. 24 June (Opler). Spey. c. callippe, dark nominate, 3 mi. NE Vallejo, 11 June (Langston). S. z. myrtlae Pt. Reyes 8 - 9 June (Howe). Coen. c. eryngii NW Mt. Shasta 8 and 15 August (LaDue). Cer. silvestris below Auburn 11 September (second brood! LaDue). Oen. ivallda Mono Pass 31 August (late, Opler). O. n. iduna, Plantation, Sonoma Co. late May (LaDue). O. c. stanislaus, Sonora Pass 21 July (LaDue) and worn 29 August (Opler).

LIFE HISTORIES: Gorelick found Pleb. acmon larvae on Eriogonum l. latifolium, San Mateo Co., May. and Thorne found a larva of Hem. gyas, fed to maturity, on flowers of Eriog. wrightii membranaceum, Jacumba (myrmecophilous). Phil. e. dammersi was found in Lytle Can. 7000' 5 and 11 August (Hughes, Lane), associated with Eriog. l. pauciflorum; in the New York Mts. on E. wrightii trachygonum 10 September (Hughes, Henne); at Clarke Mt. and in the Kingston Range 4 and 5 September (Emmel and Shields), all San Bern. Co. Henne raised it on flowers of E. elongatum Whitewater Can., Riverside Co., and larvae were found on E. wrightii membranaceum, Warner Ranch, San Diego Co. (Hedges and Thorne).

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

Coordinator: E. J. Newcomer. Contributors: C. Durden, S. Jewett, B. Mather, E. Newcomer, J. Shepard, R. Woodley.

WEATHER: Season late, little collecting until late April; good after that, altho abnormally dry in summer west of Cascade Mts.

GENERAL: V. cardui, which was extremely common in this Zone in 1966, was apparently completely absent in 1967.

BRITISH COLUMBIA: Shepard has collected intensively in SE Brit. Col., but wants to delay reporting for another season.

WASHINGTON: Woodley, collecting along the Tucannon River, Blue Mts., Columbia Co., took P. phoebus, S. cybele and coronis, E. colon, M. palla, P. satyrus, S. titus, L. editha and P. saepiolus. Large numbers of moths have been taken in light traps operated in the Yakima Valley by the U. S. D. A. lab. for two summers. Some report may be made on these later when determinations have been made.

OREGON: Newcomer, collecting with Rod Davis and Sterling Mattoon, of California, in Harney Co., August 12 - 13, found Speyeria numerous. These have not all been determined but subspecies of coronis and hydaspe were plentiful at 5000 - 5500 feet in forests 20 mi. NE of Burns, as was mormonia erinna; and cynna and m. artonis at 6500 - 9000 feet in Steens Mts., 60 mi. S. of Burns.

S. Jewett reported Brephos infans oregonensis, Enchoria lacteata, Mesoleuca gratulata and Neodezia californiata abundant along Nehalem R., Clatsop Co., but most other species less numerous than in 1966, except for Malacosoma californicum pluviale, which was abundant, but larvae heavily parasitized.

IDAHO: Mather reported a geometrid, Entrepheia multivagata, at Clark Fork, October 2.

MONTANA: Durden, collecting in Beartooth Mt., region (Carbon, Stillwater and Park Cos.), reported following new records: Cercyonis phocus, Bear Creek, Nymphalis vau-album, Elk and Rosebud Lakes, Amblyscirtes aenus, E. Rosebud L., all in Carbon Co. High population of Speyeria, hydaspe and egleis albrighti more numerous than in 1966. Other spp. taken included Colias christina and alexandra, Er. magdalena, Bol. helena, selene, and less common: Col. p. skinneri, hagenii, Ereb. ethela, and others. In the Bull Mts. (Musselshell and Yellowstone Cos.) were Col. p. hagenii, philodice, Hesp. h. idaho, Ochlodes sylvanoides and Cerc. meadii, the latter new to this area.

ZONE III: ROCKY MT. AREA. ALBERTA, WYOMING, UTAH, COLORADO AND NEW MEXICO

Coordinator: Donald Eff. Contributors: C. Callaghan, P. Conway, C. Cushing, S. Ellis, J. Emmel, M. Fisher, D. Groothuis, R. Holland, J. Legge, R. Leuschner, B. Mather, J. Scott, O. Shields, R. Stanford, Wm. Swisher, K. Tidwell, M. Toliver and R. Woodley.

ALBERTA: Last year Alberta had plentiful moisture while the more southerly Rocky Mt. States were extremely dry. This year the reverse was true with Alberta having no moisture from mid-June to September according to Legge. Only one report of collecting in the Province, this from July 16-27 by Woodley who traveled the Kananaskis Hwy. between Coleman and Highwood Pass. He notes unusually warm weather which apparently caused the summer flights to be about a week earlier than normal. Plateau Mt. provided excellent collecting with particularly good results in Boloria astarte, Oeneis beanii, Colias nastes streckeri, and C. meadii elis. Others of interest taken would be Boloria alberta, Lycaena snowi and phlaeas and along the Kananaskis Hwy. Euphydryas gillettii, Colias alexandra, Boloria selene and eunomia. Many other species also recorded. For the moth collectors Mather sends notice that a specimen taken in July at Suffield by T.E. Kennedy was determined as Agroperpina lateritia by F. H. Rindge.

WYOMING: Groothuis, the only resident collector reporting, noted lousy weather. Conway, collecting in the Snow Range and SE Wyo. in the early part of July and Tom Davies and I collecting during mid-July had mostly favorable weather. Moisture and conditions were exactly right this year to create vistas of floriferous beauty heretofore unequalled in the Rocky Mts. Records, Choice Species, Extensions of Range, Relative Abundance. Groothuis reports two records new to Converse Co.; Callophrys apama homoperplexa and Pleb. shasta minnehaha. Davies and I also recorded minnehaha from South Pass in Fremont Co., a rather unlikely locality. Conway's best captures would appear to have been Pyrgus ruralis, nr. Centennial in Albany Co. and Hesperia comma colorado in Sybille Creek Canyon in Platte County. Noted also is the capture of Mitoura spinetorum nr. Centennial, a species which was scarce this year except in N. Mex. In two days, 26 species and subspecies were recorded, mostly the normal captures expected in this area. Davies and I found Anth. sara julia, Coen. haydeni, Oeneis jutta reducta, and Boloria kreimhild very common. Euphy. gillettii was scarce on Togwotee Pass, more plentiful in the Gros Ventre Mts. Euphy. editha hutchinsi was fairly plentiful, but in poor and worn condition on South Pass. Because of the lateness of the season all Speyeria except callippe were scarce, and just beginning to appear the last of July. Parn. clodius gallatinus was common at Granite Creek in Teton County. Boloria toddi locally common along the Buffalo River below Turpin Meadows. New and Choice Collecting Spots: Bear Tooth Pass and Plateau in Park Co., east of the NE Yellowstone Park entrance was intriguing, but unfortunately the Wyo. side clouded up before we could collect, but the Montana side yielded O. taygete edwardsii and melissa lucilla, Togwotee Pass as usual provided excellent collecting and Granite Creek south of Jackson, Wyo. from the sampling taken would appear to provide excellent possibilities.

UTAH: Season here, as in Colo. was poor. Deficient winter moisture followed by warm weather brought things out early. Then snow, cold and rain retarded collecting until by the first of July things were 2 to 4 weeks late. Records, Choice Species, Extensions of Range, Relative Abundance: Shields and Emmel report Ochlodes yuma near Park Hdqtrs. of Zion Nat'l. Park in late August. Callaghan extended the range of Lyc. melissa annetta when he found it in numbers near the head of Mill Creek Canyon in Salt Lake County. His capture of several Speyeria hyd. sakuntula near Beaver Mt. in Cache Co. near the Idaho and Wyo. borders was of interest. Especially interesting was his visit to the Deep Creek Mts. near the Nevada border where he enjoyed good collecting at the higher elevations for such things as Pleb. saepiolus and icarioides, Oeneis chryxus, Speyeria zerene ssp. and a particularly interesting callippe. Tidwell's most significant contribution this year was the recording of O. taygete edwardsii and melissa lucilla from Leidy Peak just west of the Flaming Gorge Reservoir in NE Utah. This is the same area where he has in the past, and again this year, taken such things as Erebia magdalena, Colias medii and Erebia callias, all comparative newcomers to Utah records. In the same vein is Callaghan's capture of Lycaena snowi on Bald Mt. in the Uintahs. Tidwell also found Speyeria nokomis in the Vernal area and there are other reports of sightings and captures in the vicinity of Tabiona and Neola. Swisher reports capture of Speyeria nokomis from the Glendale area in Kane Co. to augment an isolated report of two from the same area in past years. He also took Papilio bairdii there. Davies and I captured a number of specimens of a second brood of Melitaea acastus on July 9, near Jensen. Tidwell also found them slightly later along the Green River south of Jensen. As far as we know there is no previous record of a second brood for this species. New and Choice Collecting Spots: Callaghan's exploration of the Deep Creek Mts. and the results, coming on the heels of past discoveries in the Oquirrh, Stansbury and Cedar Mts., should awaken the pioneer spirit in others to explore isolated ranges in the Western part of this state, such as the Newfoundland Mts., Raft River Mts., etc.

MOTHS: One report by Leuschner, and that for late August. Zion Nat'l. Park had warm weather with temperatures to 100° in the day and near 70° at night producing good collecting with 145 specimens of 67 species of Macrolepidoptera in two nights. Best catches were Sphinx englehardti and Hemileuca neuwoegeni. The Arctiid, Cisthene angelus swarmed on the lights in town. In a single night at Bryce Canyon 117 specimens of 39 species were captured, mostly Noctuids. These contained 9 species of Euxoa and some good Oncocnemis: 30 sanina, 4 colorado and 1 mirificalis. At Ceder Breaks after rain and hail in the afternoon, 39 specimens, representing 20 species were taken in the first hour of darkness. There were 6 species of Euxoa, and some of the other better things were Eurois nigra (Noct.) and Lygris destinata (Geom) in an interesting form or race which may be new.

COLORADO: Season generally regarded from the worst ever (Ellis) to only fair. Definitely below normal, probably as the result of 1966 being one of the driest seasons on record. Conditions so arid on the plains of eastern Colo. that wheat did not germinate. Snowpack below normal in the mountains. Extremely mild weather brought on the early spring species well ahead of time, only to be followed by wet, cloudy and cool weather which lasted into July, and included one of the wettest periods on record. As a result the mountains of Wyo. and Colo. were so verdant that plentiful foodplants for the Lepidoptera larva should augur well for collecting in '68. Records, Choice Species, Extensions of Range, Relative Abundance: Some of the more interesting records include Anaea andria (Apr. 8) at the entrance to Two Mile Canyon just north of Boulder, taken by Fisher who also took Euptoieta claudia near Brainerd Lake in August, Heliopetes ericetorum in Unaweep Canyon by Ellis, this is a new state record and Ancyloxypha numitor by Stanford (Aug. 18) at Bonny Reservoir in Yuma County. A. numitor had only been recorded once previously, by Dr. H. Redeck from Two Buttes Reservoir in Baca County. Among the choicer species captured this year were Euptychia dorothea in El Paso County and Unaweep Canyon in Mesa County, (Fisher) Philotes spaldingi in Conejos Co., near Alamosa Reservoir (Scott), Megathymus texanus (July 14) 4 miles south of Portland in Fremont Co. (Scott), Ochlodes snowi near Rosita in Custer Co. (Scott), Polites mystic dacotah (July 15) taken near Sedalia in Douglas Co. (Stanford), and Atrytone logan (late July) on Rocky Flats, Boulder Co. (Stanford). Speyeria nokomis was taken in Unaweep Canyon by Stanford and Mike Fisher and the latter also took Strymon sylvinus. This last record is mainly interesting because it has not been recorded from Mesa Co. since Minor took it years ago. Included in records reflecting an extension of range we find Fisher taking Scol. piasus daunia and Hesperia pawnee montana nearly 50 miles east of the mountains at Sandstorm Ranch SE of Parker in Elbert Co., and Stinga morrisoni on the Fall River Road in Clear Creek Co. west of Idaho Springs, Amblyscirtes simius (Aug. 2) taken near Saguache, the first record for the San Luis Valley and Pyrgus scriptura, common in Pueblo and Fremont Counties, both taken by Scott, and Ellis taking Philotes rita (probably coloradensis) on the Western Slope for the first time. He also recorded Euphy. editha, not only from the Gothic area where it was found initially, but also as far south as 30 miles north of Mesa Verde. Scott notes that his captures of Chlosyne fulvia 6 miles south of Florence in Fremont Co. on July 5th indicate that there are three broods of this insect in Colo., not just two as previously thought. He indicated also the foodplant of Philotes spaldingi is probably Eriogonum racemosum. Speyeria c. meadii, Euphy. a. capella and Satyrium behrii crossi were abundant on Lookout Mt. nr. Golden in Jefferson Co., and Strymon falacer godarti on Cheyenne Mt. near Colorado Springs. All noted by M. Fisher, who also found Hesperia harpalus ochracea plentiful in the Estes Park region in Sept. I also found it swarming just north of there in the Poudre Canyon west of Ft. Collins. Polygonia zephyreus was fresh and common and the second brood of Euminois rigingsii was in evidence. Stanford notes that Euchloe a coloradensis, Phyciodes c. camillus, Coen. t. ochracea and Euphyes vestris were very common. He also notes that the peak period in terms of number of species was Aug. 1-10 when he took 84 species. This attests to the lateness of the season. New and Choice Collecting Spots: Vicinity of Shellings Springs and Alamosa Reservoir in Conejos Co., South Crestone Lake and Campground in Saguache Co., and Lookout Mt. and the Adjacent Clear Creek Canyon, and Golden Gate Canyon, all in Jefferson Co. as well as Red Rocks Park near Morrison. Stanford has also made some good catches and enjoyed good collecting in the vicinity of Sedalia. Conway has sent a detailed list of species collected showing also the date and place of capture. The list of species is about what would be expected with a few of the choicer items, such as Colias scudderii, Mitoura spinetorum, Lyc. nivalis browni, Pleb. acmon lutzii and O. uhleri reinthali but unfortunately there is no indication whether the capture was of a single specimen or a hundred. But the list of places collected is interesting and includes the famous Hall Valley, plus the vicinity of Alma and Four Mile Creek Canyon, all in Park Co., Stagecoach Meadows, Slate and Cement Creeks, vic. of Almont, creek east of Taylor Park and Cumberland Pass, all in Gunnison County. I know also that a creek just east of Taylor Park, near Tincup has proven to be an excellent collecting spot for Maurice Howard of Pueblo, Colo. who this year took much good material on Mosquito Pass near Leadville.

NEW MEXICO: Apparently the weather was much like that of Colo. and Utah, except drier. Snowfall was about 1/3 normal last winter and total precipitation up to June 1st was less than half of normal. Records, Choice Species, Extensions of Range, Relative Abundance: Another colony of Callophrys mcfarlandi is reported by Cushing in the Valley of Fire State Park, about 12 airline miles from the one discovered by Holland and Toliver in '66. These two collectors also turned it up this year in the Manzano Mts. of Valencia Co., which is probably a new county record. In the same Manzano Mts., but in Torrance Co. they turned up a number of other interesting species, including Callipsyche behrii crossi which must be a new southern extension of range, and Coen. ochracea and Colias alexandra in the Capillo Peak area. C. alexandra is particularly interesting because it was common here, while it appears to be absent or extremely rare in all the other N.M. ranges north of here. Toliver added an excellent record in Erynnis meridianus, taken April 23rd. nr. Embudito Canyon in the Sandia Mts. of Bernalillo Co. Not only this is a new county record but is had only been taken at three

localities prior to this. Fisher, Holland and Toliver all mention above average number of M. spinetorum taken at various places in the state. Mitoura siva also seemed to be abundant. There was an unusual number of Colias caesonina in the Sandia Mts., as well as Libytheana bachmanni later on, in Sept. Speyeria nokomis is always news from this state and Toliver missed a "dead certain" shot from 3 feet at a sitting male near Bluewater Lake State Park in Valencia Co. on Aug. 29th. Scott also recorded nokomis from Questa in Taos Co. on Sept. 2nd. New and Choice Collecting Spots: Probably one of the most interesting facts to be included in the summary for this region this year is some detective work done by Holland and Toliver concerning a historic collecting spot which went unvisited for too many years after the turn of the century, namely Cockerell's Sapello Canyon type locality for Speyeria nekomis nigrocaerula. Holland found a little-known paper edited by Henry Skinner entitled "A List of the Insects of Beulah, New Mexico" which provided some definite details relative to the exact locality. From this information he and Toliver were able to locate the exact locality. They then visited the place several times in August, but without success. The locality is a meadow of about 30 acres which has been alternately farmed and grazed and it seems certain that nigrocaerula is extinct here. Some interesting things were taken here, however. The most notable would be Hypaurotis crysalus. The Manzano Mts. (primarily in Torrance Co.) proved to be an excellent area to collect and some 75 species were recorded. Some have already been mentioned, but others of interest would be Atlides halesus, Strymon titus, Neophasia menapia and numerous skippers, including a colony of Megathymus coloradensis in Hell Canyon.

ZONE IV: GREAT PLAINS, CANADA TO TEXAS IN THE PLAINS REGION

Coordinator: H. A. Freeman. Contributors: P. J. Conway, J. F. Doyle, III, H. A. Freeman, E. A. Froemel, A. C. Habegger, R. Heitzman, W. H. Howe, F. H. Karpuleon, R. O. Kendall, L. J. Paulissen, M. A. Rickard, J. H. Shepard, M. Toliver. Coverage for this report the best in many years.

GENERAL CONDITIONS: Reports variable, most collectors indicating average or below normal collecting, however several records that were very interesting were reported.

MANITOBA: Conway reported that a short trip to Manitoba during May produced the following results: Duck Mountain Provincial Park, May 27, season late, however the following species were collected: Polygonia satyrus, P. faunus, P. progne, Nymphalis milberti, Callophrys augustinus, Cleastrina argiolus. Sandilands Forest Reserve, 8 miles southeast Richer, May 28, collecting good with the following species being collected: Erebia discoidalis, N. milberti, Boloria toddi ammiralis, C. augustinus, C. henrici, C. polios (300 specimens collected), C. nippon, Everes comyntas valeriae, Glaucopsyche lygdamus couperi, C. argiolus, Euchloe ausonides mayi, Erynnis icelus.

SASKATCHEWAN: Shepard reported for N. Slope of Cyprus Hills, June 11, capture of the following four species: Boloria freija freija, Callophrys polios, Oeneis uhleri varuna, and Euchloe ausonides sub. sp. ?. The Boloria record represents a considerable extension of the known range of that species.

NEBRASKA: Froemel indicated that due to extremes of weather collecting was very poor around Columbus during the entire season with only about 150 moths and very few butterflies collected.

KANSAS: Habegger reported collecting the following interesting species in the vicinity of Lawrence: Pompeius verna, 2 males, June; Amblyscirtes vialis, 4 males, 1 female, April 16, May 7; Polygonia progne, 1 male, April; Feniseca tarquinius, 4 specimens, April; Limenitis astyanax, 1, September (slight record); Agraulis vanillae, emerged September 16, from pupa found in Lawrence. Heitzman reported collecting good during early April in eastern Kansas. Shawnee Mission Park in Johnson Co., was good as C. henrici was abundant, A. midea were numerous, E. o. rosa was back but still less than normal numbers; E. juvenalis, E. horatius, and E. brizo, were abundant, E. martialis scarce and E. baptisiae absent. F. tarquinius had a good spring as did hibernating A. andria. Papilio glaucus, B. philenor, and G. marcellus had good spring flights. Late spring, summer and fall collecting was affected by late spring adverse weather conditions. E. phaeton was absent again as were all June Strymon and S. idalia. Howe reported similar conditions for eastern Kansas. He reported the following: First appearing dates (Franklin Co.): Pieris protodice, Mar. 10; E. comyntas, Apr. 1; C. henrici, Apr. 5; G. marcellus, Apr. 6; P. glaucus, Apr. 6; B. philenor, Apr. 7; Actias luna, Apr. 8; E. brizo, Apr. 14; After the April 26 freeze no more Papilio appeared the rest of the season. Neither S. idalia nor S. cybele appeared at all. A 12 year old boy caught a female Thysania zenobia, August 9, Ottawa, and another boy, Thane Hodson, caught a Cocytius antaeus, August 15, at Ottawa. Hodson also collected E. imperialis, Catocala angusi lucetta, X. tersa, H. cingulata, and P. labruscae, at Ottawa.

OKLAHOMA: Paulissen reported that a University of Arkansas student collected a male Erebus odora in Cherokee County, October 12. M. Toliver made a June collecting trip to Oklahoma with the following results: June 7, Wichita Mountains Wildlife Refuge, Mt. Scott, 1 mile south of Meers, Lake Johnson, Comanche Co., E. rubricata, P. tharos, D. plexippus, and N. iole. Near Wagoner, Whitehorn Cove Resort, Fort Gibson Res., Wagoner Co., June 14: B. philenor, P. tharos, V. virginienensis, A. andria, C. cecrops, E. comyntas, C. caesonina, P. protodice, E. cymela, E. clarus, E. horatius, T. pylades, A. campestris, Catocala illecta, and C. epione.

TEXAS: Toliver collected in Palo Duro Canyon, 15-16 miles south of Claude, Armstrong Co., June 4, with the following results: E. claudia, A. celtis antonia, C. caesonia, E. nicippe, N. iole, H. isola, L. marina, B. exilis, M. gryneus castalis, H. viridis, H. uncas, A. logan lagus, A. nysa, A. aenus, A. eos, and A. simius. Karpoleon reported the following species from Cass and Bowie Counties: P. comma, June 3, Aug. 7; C. niphon, Mar. 17, 18; F. tarquinius, May 3, July 30, Aug. 9, Sept. 18; H. isola, Apr. 22; C. argiolus, May 30, July 22, Aug. 20; A. midea, Mar. 23, Apr. 9; P. sennae, July-October; E. funeralis, Mar. 17, May 22, Aug. 6; P. ocola, Aug. 6; A. logan, May 30, July 22; Sept. 3, and 4; and from Sam Houston State Park three species on Sept. 3: P. m-album, C. argiolus, and A. haesus. Rickard reported some very interesting species collected: C. henrici turneri, Mar. 5, Montgomery Co., and Houston, Mar. 15; C. niphon, Mar. 15, Houston; C. xami, Mar. 11, Edge Falls, Bourne Co.; Pholisora new species, Sept. 2, Brownsville; Poanes yehl (new state record), Sept. 23, Montgomery Co., near Spring; A. oslari, May 14, San Antonio. Range extension of P. oileus into Montgomery and Comal Counties. Larval food plant of Calephelis virginensis discovered to be thistle. He stated that 42 species of butterflies taken at Brownsville, Dec. 21, showed little serious damage to butterfly populations by Hurricane Beulah. Doyle reported the same general information for the Brownsville area, Dec. 21, and recorded the following species for that day: C. miserabilis, S. columella istapa, H. laviana, A. thraso, A. jatrophae, U. procne, P. oileus, C. georgina, A. louisa, P. maxima, E. lisa, C. elada, P. communis, C. nemesis, P. vesta, and E. sosybia. He also reported collecting very poor in the general vicinity of San Antonio due to extreme dryness during the spring, summer and fall. Species records: April 21, C. lineata, Brownwood; July 27, S. ceos, South Bexar Co.; July 30, T. pylades, Medina Co.; Aug. 13, S. ceos, Kendall Co.; Oct. 8, P. oileus, New Braunfels; Oct. 22, C. janais, Kendall Co. (new county record); Nov. 26, Ascalapha odorata, Bexar Co. Doyle also reported observing a large migration of Libythea bachmanni larvata in the Pharr-McAllen area during the summer. Kendall reports that weather conditions in the San Antonio area were not favorable for a good collecting season due in part to the very dry spring and summer and nothing new to report. Freeman reports collecting in the Dallas area about normal. In the Brownsville area during the first of June many species abundant and the most important catches were: 1 female, Lerodea dysaules, June 7, and two males, Phocides lilea, June 8. During the first and last of August, in the Rio Grande Valley, there was noted a decline in the number of species present.

ZONE V: CENTRAL REGION. MISSOURI TO WEST VIRGINIA, NORTH TO ONTARIO.

Coordinator: J. R. Heitzman. Contributors: R. A. Arnold, W. A. Bergman, A. Bolduc, J. L. Boughner, R. L. Bovee, R. Bracher, E. M. Brackney, P. J. Conway, C. V. Covell, B. Cutler, K. Dickson, J. Donahue, M. H. Doner, W. Edmonds, L. Elmleaf, N. Flagstad, C. B. Hansen, J. R. Heitzman, G. Helgeson, R. L. Huber, R. B. Janssen, V. Javorski, L. Johnson, K. Kerr, G. P. Korsmo, K. Laska, F. Leshner, R. Leuschner, S. A. Lindsay, W. Linscheld, L. MacDonald, L. L. Martin, J. H. Masters, B. Mather, E. Metzler, J. Muggli, T. McCabe, J. H. Newman, M. C. Nielsen, J. S. Nordin, P. D. Nordin, D. Oemick, N. Raab, J. B. Robb, J. Schrenk, W. Sieker, E. M. Shull, J. T. Sorensen, K. S. Tollefson, S. E. Tollefson, V. Warczynski, H. Willis.

GENERAL REMARKS. Lepidoptera population levels were up over nearly all of Zone V. Extremely poor weather conditions resulted in very poor collecting in a few localized areas. Much of the area experienced late spring freezing weather which altered later flight periods. D. plexippus was scarce or unreported over most of the zone: only two mass movements were observed. 1966 was apparently the peak year for V. cardui since numbers were back to normal or below in 1967.

MISSOURI: By the first week of April butterflies were in full flight in the west-central portion of Missouri. By the first of May killing frosts and continuing rain brought a complete stop to collecting. The rest of the season was extremely poor for butterflies and only fair for moths. Summer drought further hindered collecting. Some spring notes: C. henrici, F. tarquinius, A. midea, H. metea, E. brizo, E. juvenalis were up in numbers. E.o. rosa and M. gryneus are making a slow comeback. Summer collecting was extremely poor, many species absent including all Strymon but melinus and cecrops. Speyeria and Limenitis species rare. From the central Ozarks south collecting was better, especially late in the season. C.c. rosa was again abundant as was P.s. eubule, E. lisa, N. iole, V. virginensis and P. l. coenia. Only a few H. leonardus were found this fall. A D. plexippus migration moved through Kansas City area Sept. 23-25 flying in a SSW direction at a leisurely pace, stopping to visit flowers and moist areas. Any late-blooming flower beds were completely covered. Most specimens were flying quite low, 2 to 10 feet above the ground, going around objects instead of over them. STATE RECORD: Leptotes cassius 22 Sept., Independence, Jackson Co., Mo. Laying eggs on butterbean flowers. Moth collecting was generally good in the Ozarks. In the Kansas City area the only good collecting was in wet areas along the Missouri River. Schinia species, Basilodes, Stiria and most flower-feeding species were rare. Papaipema species were common in September, Sphingids were scarce. Leucania rubripennis was absent in 1967. Some rare state captures were, Leuconycta lepidula, Schinia crenilinea, Amyna bullula, Eutelia pulcherrima and Apicia packardaria. Dickson and Heitzman had good luck with black light 8 August in the Rudolph Bennit Wildlife Area near Moberly. Several rare species were taken including Schinia gloriosa, Ozarba aerea, Catocala ulalume and many good micros.

KENTUCKY: Covell engaged in a county-by-county butterfly survey visited 13 counties and recorded 55 species. The catch included L. borealis, F. tarquinius, S. edwardsii (common), S. idalia and diana, A. cellus - the second Kentucky

record for T. lineola, L. portlandia and M. nycteis were common during August. In general butterflies were in good numbers. Heitzman found many H. tessellaris 8 July, 30 miles SW of Lexington at lights. Leuschner using black light east of Irvine, 27 July took 57 species of macros. Included were Eacles imperialis, A. io, 5 species of Apatela, 2 Catocala, 4 Plagodis, Semiothisa succosta and quadrinotaria, Hypagyrtis esther, Glennoides texanaria and Sterrhia punctofimbriata.

WEST VIRGINIA: Late June, early July, vicinity of Cranberry Glades in the Monongahela National Forest. Heitzman and Weems were hampered in collecting by many rainy days and cold nights. Butterflies were mostly uncommon with few species present. Only 3 species, P. mystic, H. sassacus and C. eurytheme were common. S. cybele and aphrodite (large dark races) were fresh but scarce. The best collecting was in meadows at about 3700 feet. Collecting in the Glades proper produced a few P. coras, P. origines, A. numitor, C. argiolus, C. philodice, E. phaeton, L. astyanax, N. antiopa and E. cymela. One surprising capture was E. m-album 1 July. On the few warm nights blacklight produced excellent results. Sphingids were common, mostly P. excaecatus and P. myops but C. undulosa, C. amyntor, C. juglandis and S. kalmiae. E. nubilis was abundant but only one Catocala, C. ilia was caught. Of Saturniids, T. polyphemus was rare and A. rubicunda was abundant. Notodonids, Geometridae and Noctuidae were extremely abundant. There was a dearth of micros. Lycia cognataria was abundant with at least 25% melanics. A peculiarity of the area was the many melanic specimens of different moth species, even extending to the butterflies where several very dark S. aphrodite and cybele were taken. Species of extreme abundance were, Peridea ferruginea and angulosa, Monodes versicolor, Mamestra latex, Phlogophora iris, Septis arctica, Peridroma plecta, Apatela species, Halisidota tessellaris, Pero species Hydriomena species, Hydria undulata, Venusia comptaria, Euchlaena amoenaria, Pseud, cymatophoroides and form expultrix and Oreta rosea. Rheumaptera hastata was common flying in the day on hill tops in Vaccinium and pine woods. Some choice moth collections were Plusia formosa, Oligia fractilinea, Panthea furcilla, Plusia ampla, Lepidula leuconycta, Bomolocha edictalis, Pyrrhia exprimens, Eurois oculata, Harrisimemna trisignata, Halisidota caryae, Haploa confusa and Pyrausta funebris.

IOWA: Conway collecting briefly 30 June at Pilot Knob State Park, Hancock Co., took E. clarus, S. falacer, M. nycteis and E. cymela.

INDIANA: Unseasonable cold spells during the summer were noted, causing bad effects on the Lepidoptera in some cases. Shull collected extensively in Wabash Co. and turned up many good records. STATE RECORD: Thymelicus lineola 22 June and 1 July north of Manchester. V. atalanta, V. cardui and E. claudia which are normally common were scarce. P. protodice is still uncommon, appearing only in September and October. S. idalia, S. diana, P.i.coenia, A. andria, P.s.eubule and L. bachmanii were absent. Hairstreaks were more abundant than usual. Good catches were C. titus, 22 June, 9 and 12 July, S. ontario, 20 June and 1 July, S. acadica, 9 and 12 July, S. liparops, 12 July. L. epixanthe was taken 9 and 12 July and L. helloides 20 August. Collecting was good into late October with 10 species on the 22nd including G. marcellus, P. interrogationis, P. comma and P. progne were taken the same day feeding on stale sap oozing from a wood-borer's hole in the trunk of a White Oak tree. Light captures included Sphinx chersis, 12 July, Catocala cara, 6 August, C. epione, 12 July and A. luna, 5 and 6 August. Bracher found everything scarce in the South Bend area with probable causes the cool summer weather, insecticides and herbicides. Only 2 D. plexippus were seen. A few P. glaucus and P. troilus were found but only 1 P. cresphontes. Robb collecting in Madison Co. 1 to 29 August notes P.p. asterias very common but all other Papilio species down in numbers. L. archippus showed an increase. D. plexippus numbers up considerably from last year (one of only three observations from Zone 5 on noticeable numbers of Monarchs in 1967). P. troilus, P. glaucus, S. cybele and P. tharos were very common 27 August in the La Porte area. Leuschner with black light in late July near Madison took 71 species of moths. E. imperialis, A. luna, T. polyphemus, A. bicolor, 3 species of Sphingids, Caenurgia chloropha, Mocis texana, Metarranthus, Homuraria, Anacamptodes defectaria, Sterrhia punctifimbriata were included.

ILLINOIS: Late spring cold and summer rain hampered collecting at least in the northern areas of the state. The season was generally considered the poorest in many years. Conway collecting in Perryton Township, Mercer Co. records 45 species of butterflies but most early species were entirely absent. Better catches were A. vialis, May, June and August. A. clyton, 13 Aug., P. progne, 12 Aug., S. idalia, 22 July and M.i. carlota, May, July and Aug. Arnold has observed a tremendous increase and spreading of T. lineola. They were swarming by the thousands at Palo Park, 16-22 June. Several of the form pallida were also taken. Because of spring cold the first brood of L.p. americana was absent and those of the 2nd brood rare. Colias and Pieris species were delayed by 2 to 4 weeks and then in reduced numbers. Strymon and Speyeria were 2 to 3 weeks late and down in numbers. Only a few migrating D. plexippus were seen in August. Arnold collecting further south in Logan Co., 11 August found collecting nearly normal. D. plexippus fairly common, P.p. asterias, P. rapae, P. tharos and P. coras and P. catullus were very common. Johnson collecting Illinois Beach State Park, Lake Co., 17-22 August took P. asterias, E. clarus, S. edwardsii, S. acadica and C. titus. Oemick found many F. tarquinius near River Trails Nature Center in Northbrook, 7-18 Sept. and many larvae feeding on aphids on Smilax hispida, 12-26 Sept. same locale. N. milberti was found 25 Sept. south of Barrington and a pupa discovered in a curled up raspberry leaf at Volo Bog near Volo, 8 Sept. Leuschner found extremely poor black light collecting 2 August in Cook Co.

OHIO: Martin collecting in northern Ohio found early spring flight periods normal. A cool wet May delayed late spring species about 2 weeks. Summer and fall flight periods were normal. An increase in most species was evident but most are still below normal levels. Exceptions were V. atalanta, V. virginensis and V. cardui (all absent). Only 10 D. plexippus were seen. Several good collections for the Wellington area were E. dukesi, B. philoner, E. lisa and L.p. anhedon. Webs of E. phaeton larvae were found in late summer here and 5th instar larvae of C. promethea 22 July. One good collecting spot was the Resthaven Wildlife Area in Erie Co. An area of varied habitat including virgin prairie. A fine 2nd brood of M. nycteis was taken here 12 Aug. along with E. conspicua, L. thoe. County records E. dion (18 July) Lorain Co., E. icelus (21 May) Portage Co., S. acadica (9 July) Champaign Co., (22 July) Lorain Co., F. tarquinius (18 Aug.) Portage Co.

MINNESOTA: In spite of a very cold spring and cool dry summer, 1967 was a remarkable year marred only by the scarcity of fall species. 30 collectors reports coordinated by Huber give the most complete coverage of any state in Zone 5. The report covers all species of butterflies (124), Sphingidae (25), and Catocala (14) captured in 1967. An amazing total of 3 State and 340 county records were accumulated. GENERAL COMMENTS: Most of the fall species such as P. communis, C. cesonia, C. eurytheme, N. iole, E. claudia and Vanessa species were extremely scarce, P.1. coenia was entirely absent. 3 southern stragglers were captured, H. isola, E. mexicana and A. vanilla. Many species thought to be rare were uncovered by diligent collecting and in some cases proved to be locally common insects. NEW STATE RECORDS: Pyrgus centaurae. McNair, Lake Co. (27 May) by Huber and Leshner, (30 May) by Brackney. (3 June) Masters, (4 June) Huber and Bergman and ragged examples (17 June) by Bolduc. Colias gigantea. An astounding record. 1 male taken in a Willow area near McNair in Lake Co. (2 August) by Bergman. (Further collecting and host plant data are needed to definitely substantiate this record). Boloria frigga. Roseau, Roseau Co. (15 June) by Flagstad, Becker Co. Big Twin Lake (17 June) by McCabe, St. Louis Co. (17 and 18 June) by Masters and Conway. Solano State Forest, Aitkin Co. (20 June) Masters. The following are but a few of the noteworthy records in the report. A. samoset, taken in June in four new counties, Aitkin, Carlton, Roseau, Lake of the Woods. A. hiana two new Co. records, Winona and Wabasa. E. dion, two new county records, Aitkin and Kanabee. E. conspicua (July) Winona and Goodhue are new county records. P. viator (12 Aug.) Nicollet county and A. arogos (7 July) Chippewa Co. are new records. Only a single A. campestris was taken in 1967 after being common in 65 and 66. H. ottoe was collected by Huber (10 July) in Lincoln Co. H. dacotae is reported from 4 counties in July. E. martialis and horatius (June) are new Washington Co. records. T. bathyllus was found in two new counties, Wabasha and Goodhue. A E. mexicanus was taken 10 July in Clay Co. by McCabe (fourth state record). A single N. iole was found after numerous records the past two years. E. ausonides was common near Roseau in June. S. caryaevorus was taken in July in Houston and Hennepin Counties. The latter a county record. C. polios. 4 new county records, (May) Hubbard, Beltrami, Roseau and Lake of the Woods. C. niphon 4 new counties, Hubbard, Beltrami, Roseau and Lake of the Woods. E. amyntula albrighti (June) 3 new counties. Lake, Beltrami, Roseau. A single L. bachmanii record is in direct contrast to many 1966 records. P. batesii. Quite a few records including three new counties. Itasca, Lake and Roseau. M. harrisii was taken in Polk and Roseau counties for new records. 6 species of Boloria were captured, selene, toddi, frigga, freiija, titania and eunomia. The third state capture of A. vanilla was recorded (18 Sept) St. Paul by Masters. O.u. varuna was taken for the third straight year near Fulton in Clay Co. O. jutta taken in 2 new counties, Koochiching and Lake. Choice Sphingids captured were S. canadensis, S. luscitiosa and several records for S. abbotti which seems to be increasing in numbers in several states. Conway found excellent collecting in St. Louis Co. Ash River Trail, here P.g. canadensis was swarming by the hundreds at mud puddles along the road. S. liparops nr. fletcheri was taken near McNair, Lake Co. (July).

WISCONSIN: Boughner records several good captures from southern Douglas Co. C. inornata, 5 July (only a few state records), M. harrisii, 7 and 17 July (rare), P. batesii, 5 - 21 July, P. satyrus, 17 - 18 July (abundant), M.i. carlota, 1 July (the first captures in 11 years of collecting in that area). Crotte Brook Trail in S. Douglas Co. is an area where L. astyanax and L. arthemis meet and hybrids occur. Boughner notes many artemis here bore astyanax characteristics. Johnson collecting in Forest Co. 15 - 22 July found S. cybele, S. atlantis and B. selene common. L. archippus, L. arthemis, N.v.j-album, N. milberti were down in numbers from 1966. Conway collecting near Lynxville, Crawford Co. 31 May took P. hobomok, E. icelus, P. tharos and P. comma. Sieker had good luck with moths but found it a poor year for butterflies, probably due to excessive rain in early and late summer. Neshkora and Washara Cos. 25-27 May. E. olympia was common and several G. lygdamus were caught. Many Noctuids and Geometrids were taken in light traps plus C. undulos and S. cerisyi. Several M. gryneus were taken 20 May and 4 July in Dane Co. Saturnids, A. luna, T. polyphemus (Door Co) and cecropia (Dane Co) were common, 29 of the latter attracted one evening to females. Baileys Harbor, Door Co. was good for Noctuids, Notodonids, Geometrids and micros. Some Sphinx also. S. cerisyi, S. geminatus, C. undulosa, S. canadensis, P. myops and P. excaecatus. Catocala grynea, semirelecta, unijuga, ultronia were taken also. Ferry Bluff, Sauk Co. was good for Catocala but not as good as 1966. Species taken, cerogamia, concupens, meskei, ilia, amestris, epione, micronympha, abbreviatella, serena, subnata, neogamia, cara and paleogama. In the madison area two excellent catches were Catocala luciana and C. clintoni. Masters took P. virginensis in maple forest Vilas Co. (first state record); Boloria freiija in sphagnum bog, Oneida Co. (first state record); Erebia discoidalis in acid bogs in Lincoln, Oneida and Vilas Cos. (only one previous state record).

MICHIGAN: An extremely long cold winter with record snowfall set the collecting season back as much as 3 weeks. Heavy rainfall occurred from late summer well into fall limiting the flight of many butterflies but Nielsen still records 80 species. Moths suffered little ill effect from the weather and were especially numerous all during the season lasting into late fall. STATE RECORDS: Septis commoda (2 July) Roscommon Co. leg. Nielsen. Phaecasiophora confixana (26 May) Berrien Co. leg. Donahue. Eucosma pulveratana (14 July) Newaygo Co. by Donahue. Acronieta parallela (27 July) Oceana Co. leg. Metzler. Paectes abrostoloides (27 June) Oceana Co. Metzler. Phytometra ernestina (24 July) Allegan Co. Metzler. Sudariophora acutalis, Berrien Co. by MacDonald. Autographa pseudogamma (3 July) Iron Co. leg. Elmleaf. Anytus profunda (3 Sept.) Roscommon Co. by Warczynski. Interesting records. T. lineola taken in 4 new counties and found swarming in south central counties during late June. H. metea females were observed ovipositing on Andropogon scoparius in Allegan Co, a new southwestern location and county. H. ottoe was taken 15-15 July in Newaygo Co. prairies. I. niphon still flying in Jack Pine, 2 July in Oscoda and Roscommon Co's. O. jutta was still emerging 14 June in Schoolcraft Co. D. plexippus was rare (2 only), N. milberti extremely numerous in 1967. In Roscommon Co. Sphinx canadensis, luscitiosa, gordius, drupiferarum and kalmiae were taken. H. gracilis numerous in Roscommon and Oscoda Co's 1-2 July. S. abbotti, 3 fresh males from Ingham Co. (2 June). A. funeralis and radcliffei 1 July from Roscommon Co. Chersotis juncta, Marquette Co. (2nd state record), Papaipema harrisi reared from larvae boring in Angelica and Cow Parsnip. Catocala minuta reared from two pupae found in burlap bags placed at the base of honey locust trees. (this is an interesting new method of collecting Catocala pupae and should prove valuable for getting those rare species). Acrolophus moro 14 Oct. Ingham Co (second state record). All previous records by Nielsen. Epanth deflorata by MacDonald from Berrien Co. Brachionycha borealis, found swarming by Warczynski, 15 April in Roscommon Co. Merelenche dollii, 2 June Arenac Co. by Warczynski (2nd state record). Pholus labruscae, 1 caught by an MSU student, the second state capture, taken 2 Nov. in East Lansing. Masters collected P. virginensis in Gogebic and Ontonagon Cos. late May which extends the range 200 miles west in the upper Peninsula of Mich. Boloria freija was also taken in Ontonagon Co. The second Mich. record and 200 miles west of the first. Conway made 2 trips to the Wakelee Bog in Cass Co. 24-25 June and 15-16 July. 41 species of butterflies were taken. Several are new county records. P. origines, P. themistocles, L. archippus, M. harrisi, a hybrid L. arthemis X astyanax was caught. Choice captures; E. dion, E. conspicua, P. massasoit, A. lyciades, L. muticum, S. acadica, S. liparops, E. phaeton and E. mitchellii, Heitzman collecting in N.E. lower peninsula 19-27 June had fair luck in spite of poor weather. 40 species of butterflies were taken. Fine series of H. sassacus, P. mystic, C. niphon, P. batesii and a long series of L. arthemis X astyanax showing great range of variation were collected. A single I. henrici was caught 20 June in Presque Isle Co. Many H. gracilis were taken especially in the pine barrens in Oscoda, Montmorency and Presque Isle Counties. Among many moth captures the best was probably S. luscitiosa at Black Lake Campground in Presque Isle Co.

ONTARIO: Lindsay notes an early spring with good weather prevailing in the Upper Ottawa Valley area. E. olympia taken 28 May - 4 June, Deep River to Stonecliff region is a north and easterly range extension from last years Killaloe captures. P.g. canadensis was abundant 3-9 June. Several broods of N. v.j-album, N. antiopa and N. milberti were present during the summer and fall. D. plexippus was rare. Point Pelee to Windsor area. S. cybele and S. aphrodite were common during July. A. celtis was abundant 28 June - 15 July, Point Pelee Nat. Park. P. troilus had a very poor year over the entire area. Edmonds collecting Point Pelee 15 August took 15 species of butterflies. Best captures were, S. hayhurstii, M. gryneus, P. cresphontes and L. bachmanii. 17 species were collected 22 July near Apsley, Peterborough Co. including T. lineola, C. titus, S. liparops, S. acadica, S. cybele, S. aphrodite, L. arthemis and C. pegala nephele. Only 9 D. plexippus were observed the entire season. Mather found Phigalia titea and Palaearctia merricata in Toronto, 31 March (despite snow and freezing weather).

ZONE VI: SOUTHEAST: ARKANSAS, LOUISIANA, TENNESSEE, MISSISSIPPI, ALABAMA, FLORIDA, GEORGIA, SOUTH CAROLINA, NORTH CAROLINA AND VIRGINIA.

Coordinator: Bryant Mather. Data were received for all ten of the states in the zone, from 17 contributors, three more than for 1966, as follows: Richard A. Arnold, Hinsdale, Ill.; Charles Bryson, Tupelo, Miss.; C. V. Covell, Jr., Louisville, Ky.; Christopher C. Curtis, Cambridge, Mass.; T. S. Dickel, Fort Walton Beach, Fla.; C. P. Kimball, Sarasota, Fla.; R. H. Leuschner, Gardena, Calif.; Bryant and Katharine Mather, Jackson, Miss.; Leo J. Paulissen, (and others), Fayetteville, Ark.; John Plomley, Hollywood, Fla.; Llewellyn Powell (and others), Richmond, Va.; George Rawson, Silver Spring, Md.; Edmund H. Sallee, Letohatchee, Ala.; G. B. Straley, Eggleston, Va.; J. Bolling Sullivan III, Durham, N. C.; John Symmes, Atlanta, Ga.; and Robert and Barbara Taylor, Tempe, Ariz.

ARKANSAS: Paulissen submitted the following combined report on behalf of a number of collectors: Fay Karpuleon, the first to collect extensively in the Texarkana, Miller County area turned up 4 new state butterfly records: A. alternata, C. hadros, L. cassius, and E. areolata. He also found G. lygdamus there in late March; 4 males and one female were collected by him and Paulissen, others were seen, and are the first to be taken in the state in many years. Karpuleon also collected P. m-album, S. liparops, E. dukesi, E. dion, and P. yehl there. On 21 October he took a black and white P. gorgone lacking all the normal orange-brown color. In NW Arkansas Paulissen reports the weather about normal to wet with butterfly collecting generally good. The most outstanding catch was Lethe creola by the Heitzmans and Paulissen in Wash-

ington County for the second state record. On 8 September Paulissen found L. creola, L. p. portlandia and L. p. anhedon flying together and collected all three within an hour in an area of only a few square yards. Paulissen found P. s. eubule in great abundance all season with a corresponding increase in the uncommon pale "albino" females and 7-8 collected. On 14 October a pale male eubule was taken. Migration seems to have come from the west which also appeared true for E. mexicana showing up in larger numbers than before recorded; a total of 19 were collected, about equal males and females; others seen. Only a few A. vanillae were seen. Other notable records for Washington County include 4 P. m-album, and an H. p. americana with tear-shaped black spots, several E. z. funeralis and a P. crespontes feeding at japonica flowers 14 March, suggesting overwintering. Heitzman collected A. linda at Blue Springs, Washington County and reported good moth collecting there in April. He recorded 63 different species of butterflies in Washington County on September 10, and reported that collecting at Eureka Springs was much poorer this year. Paulissen reports that saturnids, arctiids, sphingids and Catocalae were still quite down in numbers at lights and not a single tropical migrant seen. He did get 1 P. juanita and 1F hatch; 3 of Heitzman's pupae of juanita collected here in 1966 hatched. Dr. Redman at Little Rock and Karpoleon at Texarkana also report an abundance of P. s. eubule but Veryl Board at Batesville did not note any particular increase there. Board collected E. phaeton, L. muticum, F. tarquinius and A. cellus at Batesville for new state distribution records.

LOUISIANA: B. Mather took H. cocropia and Lagoa ouspata in New Orleans on 25 April at the airport.

TENNESSEE: Leuschner took 80 specimens at Bean Station, near Morristown, on 26 July, regarding this as "So-So", these included Citheronia regalis, Catocala andromedae, and 13 species of Deltoids.

MISSISSIPPI: A blue taken on 27 July 1967 at Tupelo, Lee Co., by Charles Bryson was examined by Harry Clench at the Carnegie Museum and determined as Leptotes marina, male. Sofaras is know, it has not previously been taken in Mississippi, nor listed as probable; it becomes species #128 on the list of butterflies known from Mississippi. The occurrence of Speyeria cybele (Fabr) in Mississippi was recorded by Mather (J. Res Lep 5 (4) 253-254) based on a male taken at Oxford, Lafayette Co., by John L. Daniel on 10 June 1963, and became #127. New state records for moths included: Hemileuca maia Dru, East Tupelo, Lee Co., 20 October, coll. Polly Gore; det. and reported by Charles Bryson; Zale penna Morr., Jackson, Hinds Co., 6 June 1964 and 29 May 1965, coll. B. Mather; det A. E. Brower; Hydricomena pluriata meridianata McD Clinton, 15 March, coll. B. Mather det F. H. Rindge; Diatraea forbesellus (Fern) 7 June 1966, Handsboro, Harrison Co., coll: R. and B. Taylor det. Klats..

ALABAMA: Sallee, the only Lepidopterists Society member resident in Alabama, making his initial report for his area (Lowndes County and southern Montgomery County) for the period 30 August - 29 October found 33 species; E. hermes sosybia (3), E. gemma (3), Diplexippus, A. vanillae, E. claudia, Pitharos, P. interrogationis, V. atalanta, V. virginiensis, P. lavinia, L. archippus, L. a. astyanax, A. andria (ex pupa), A. clyton, A. celtis, L. bachmannii, A. halesus, S. m-album, S. melinus, S. cecrops, F. tarquinius, E. comyntas, L. argiolus, P. polyenes (ex larva on parsley), P. crespontes, P. toilus, C. eurytheme, C. (z). cesonia, P. sennae eubule, E. daira, E. nicippe, E. lisa, and P. rapae. He reports P. crespontes abundant in association with Zanthoxylum, swarms of E. hermes sosybia flying above grass in shade but few E. gemma. He notes tremendous fluctuations in past few years in spring populations of D. plexippus (extremely abundant in May 1964 and 1965, scarce in 1966 and virtually absent in 1967) but relatively constant southward moving fall populations. A. celtis is abundant in association with Celtis, A. clyton is rather rare, and L. bachmanni abundant at times. V. atalanta and S. m-album are rare. A. halesus is rather common from mid-August to mid-October but local near mistletoe. Two F. tarquinius taken 15 Sept. were the first he had taken in the area. P. sennae eubule is the most seen summer-fall period showing a constant SE migration from Aug. through Oct., during which period in good weather at least one can be seen virtually at all times. (He also took Xylophanes Tersa at Letohatchee on 8 Sept.)

Arnold collected on 29 March in Pickens Co., 6 mi NE of Gordo, in clover pastures surrounded by pine groves, temperature about 85F. Since, sofaras is known, this is the first report from this area, all species found are noted: Colias evrytheme and philodice (8), Everes comyntas (8), Anthocaris genutia midea (6 M, 4F), Phoebis sennae eubule (1), Erynnis sp (3), Pieris rapae (4), Eurema nicippe (1), Precis lavinia coenia (1), Vanessa virginensis (1), Graphium marcellus (1), Papilio troilus (5), Phyciodes sp (1), Strymon cecrops (common), Papilio glaucus (common, in tree tops). B. Mather took Metasiopsis ossulava at Montgomery on 8 April, at the airport.

FLORIDA: Plomley, reporting for Dade, Broward, and Munroe Counties, found the early part of the year poor due to drought but by June it had improved to be the best in several years. E. claudia was taken in Broward Co., in June, the first for several years. Geometridae were scarce. Alypia wittfeldi Edw, normally rare, was common. Two migrations of P. monustephileta were noted, one on 20 June in Broward Co., dispersed flight westward over an area about 2 mi wide, continued all day; other on 7 June in Everglades Nat'l. Park flying northward over about a mile width a few feet above ground, ended by a heavy rain. In Nov. and Dec. Heliconius charitonius tuckeri was abundant, Lephelisca virginensis was not uncommon in late Dec. Kimball submitted the following account of a remarkable migration as observed and reported by Dickel: "Yesterday, November 12, 1967, I witnessed a tremendous migration of butterflies along the

Gulf of Mexico. This migration was composed of the following species of butterflies: cloudless sulphurs, gulf fritillaries, snout butterflies, sleepy oranges, little sulphurs, and monarchs. The cloudless sulphurs were by far the most numerous. I would estimate that during the day 10,000 to 50,000 butterflies passed by. From my vantage point on the sand dunes about 20 miles east of Ft. Walton Beach in the direction of Panama City, Florida, I counted 50-100 cloudless sulphurs passing me per minute. They were all flying in the direction of Panama City. The wind was not a factor in the direction of their flight since it was blowing straight out into the Gulf. The butterflies seemed to be concentrated on a flight line just inside the peak of the sand dunes, perhaps taking advantage of air currents. The butterflies most numerous after the cloudless sulphurs were surprisingly enough snout butterflies. I counted over a hundred of these in the space of about two hours. Sometimes they would fly by in groups of two or three, at other times singly. Gulf fritillaries were also fairly abundant. There were a few monarchs but the main migration of monarchs occurred about three weeks ago when I counted thousands along the Gulf feeding. One other item of information. The migration ended yesterday about 3:45 P.M. There was no tapering off up to that point, but almost a complete stopping, with just a few scattered strays bringing up the rear. The sun was still way up; the temperature about 70 degrees. That is the letter exactly as I wrote it to the Department of Agriculture in Gainesville. Needless to say witnessing this migration was a thrilling experience. This past weekend I was hiking in this same area where the migration was seen. I saw six or seven question marks, or what I believed to be question marks, since I was unable to collect any due to their rapid flight. No snout butterflies were sighted." George Rawson, reporting for New Smyrna Beach, Volusia Co., stated that the eight species of papilio normally occurring in this area had pathetically declined in abundance, both specifically and numerically judging by observations made during July, August and early September. From 1955 to the Fall of 1967 he kept records from year to year of the species of Papilio captured and made notes on their relative abundance. These reveal a rather gradual falling off until now it is difficult to find more than a limited number. In general, the butterfly fauna seemed to be rather better than usual. On a Brazilian pepper tree, Schinus terebinthifolia, in full bloom in early September, Atlides halesus and Strymon m-album were exceptionally abundant. Ascia monuste, which in some years actually swarm in very large numbers, had declined to small numbers in desultory flight or feeding on the blossoms of Spanish needles, Bidens pilosa. Another species, Precis lavinia zonalis, which is also usually quite numerous during the Fall, was relatively uncommon. Asbolis capucensis seems to have become firmly established in Florida and is quite common at Hibiscus and other flowering plants. Leuschner collected for 30 nights (15-24 Feb., 1-21 May, 2-17 Jun., and 1-20 July) mostly in Orange Co., but also at Highland Hammock State Park near Sebring, at Kissimmee, at Lake Harney, and at Ocala. The totals of macro moths per night ranged from 8 to 99. On no date this year did he see as many as on some nights in late March last year. February was characterised by small numbers but excellent condition; May was good, June declined, July was very poor. On 6 May Isoparce cupressi and Lapara halicarniae were taken at Highland Hammock. In late May seven species of smaller Catocala including jair were taken. A Yrias near repenta from Cocoa Beach taken 3 June. Maybe a new state record. Leuschner's total species counts are: 132 Noctuids, 72 Geometridae, 54 other Macros. Covell reported results of collecting in Marion, Sarasota, Manatee, Collier, Monroe, and Dade Counties between 1-9 April. He found it especially dry at Key Largo but took 525 specimens representing 65 butterfly species and many moths. All of the species listed are shown as occurring in this area by Kimball (1965); two: Strymon acis bartrami and Marpesia petreus were new to Covell. B. and K. Mather in Orlando on 10-11 May took Synchlora denticulata Wlk; Cyclophora myrtaria Gn; Camptolina stellata Gn; and Eubaphe meridiana Sloss.

GEORGIA: J. Symmes took Hemaris thysbe Fabr at Auraria on 16 April. At Margret on 15-16 April, B. Mather took Pangrapta decoralis Hbn; Gueneria similaria Wlk; Metarranthis obfirmaria Hbn. At Sawanee on 18 April he took Dichorda iridaria Gn; Pero marmoratus Grossb and Lambdina pellucidaria G&R; At Dawsonville 15-16 April he took Lambdina pellucidaria G&R, Eupithecia miseulata Grt, Thyris lugubris Bdv; Melanolophia s. signataria Wlk (new state record) Iridopsis larvaria Gn; Ectropis crepuscularia Schiff; Hyperetis amicarica H-S; and Metarranthis obfirmaria Hbn. At Dalton on 16 April he took Eupithecia slossonata McD; At Woody Gap on 16 April he took Heliomata cycladata Grt, and at Gainesville on 17 April he took Anavitrinella pampinaria Gn.

SOUTH CAROLINA: Leuschner collecting at Rock Hill on 24 July too 52 specimens including Illice subjecta and Gyphia secta which were new to him. At Clemson on 17 April B. Mather took Crambus teterellus (Zinck).

NORTH CAROLINA: Leuschner stopped at Mt. Pisgah at 5000 ft on the Blue Ridge Parkway on 25 July, on a night when the fog was closing in when he stopped but rain didn't begin until morning. He took 183 specimens representing 78 species including Darapsa versicolor, Epizeuxis laurentii, and Eupithecia carolinensis. Sullivan reporting for the Durham area, noted C.g. gryneus in August and S.c. cybele and P. m-album in September. Curtis found collecting poor during the 3 nights (4-6 Aug.) he spent at Fontana Dam, taking only 42 moths. He believes collecting has declined steadily since 1962. He took angulifera and sepulchralis; coniferarum, pholus and amyntor; and Catocala ilia piatnx, residua, epione, andromedae, and amica; A elongympha and E nubilis. Butterflies were not common; of S diana he saw 1F and took 1M. Euptychia hermes sosybia, E. gemma, and E. cymela were taken in the proportions 13:2:2. L bachmannii was abundant especially at mud puddles. Powell took C.p. pegala in Hatteras.

VIRGINIA: Leuschner at Cumberland Gap on 27 July noted about 50 moths under the roof of the store across from the cave entrance, including Citheronia regalis, five species of Catocala, and a Sterrhia sp. Straley established the following county

records in Virginia, Hesperia metea, 3 May; Atrytonopsis hianna, 13 June; Incalia augustinus, 12 Apr., all taken at Eggleston, in Giles County; and Staphylus mazans hayhurstii, 3 Sept., taken at Burgess in Northumberland County. Two freshly emerged Strymon cecrops, which usually fly only in the fall, were taken at Eggleston on May 3. The diurnal moths Psychomorpha epimenis and Orthofidonia semiclarata were much more common than usual in Giles and Montgomery Counties in the early spring. An unusual moth for this area which was not spread and identified in time for last year's summary, was a Pholus fasciatus taken at a light in Pearisburg, Giles Co., 27 Oct. 1966. Llewellyn Powell, assisted by Morris and John Powell, collected in Westmoreland (W) and Goochland (G) Counties. They took specimens of 26 species, and made positive sight records of two others. Five species, previously taken, were not found in 1967: P. toilus, B. philenor, V. cardui, E. claudia, and P. interrogationis. Eight species were taken for the first time: E. c. cymela (G,W), C. p. pegala (G), A. c. celtis (W), S. c. falacer (G), C. cecrops (G), A. genutia (W), P. protodice (W), and A. lyciades (G). A. genutia was also taken in Henrico Co.

ZONE VII: NORTHEAST: PENNSYLVANIA TO MAINE AND QUEBEC.

Coordinator, L. P. Grey. Contributors: S. Anthony, R. Arnold, A. E. Brower, C. Curtis, G. Ehle, R. W. Flowers, P. Grey, H. Hensel, J. P. Holmes, J. Keii, R. May, D. J. Schweitzer, A. Shapiro, G. Straley, D. Tilden, P. Ward, B. D. Williams III.

CANADA: Anthony's July 10-19 catch at Schefferville, Labrador, was lacking in some of the species Munroe and Hensel have publicized from there. The season evidently was early and Oe. jutta, taygete, and Boloria polaris, were worn when he arrived. B. eunomia tricoloris was by far the most abundant species at this time; he also located selene and titania, took a few Colias pelidne (scarce) and Pleb. aquilo. The most interesting find was a colony of Oe. melissa semplei hilltopping on Irony Mt. (2800') about 20 miles north of the town. Anthony thinks Munroe's melissa (1948) was misdetermined as assimilis; he cites the opinion of Dr. dos Passos that the subspecies of this area is semplei. At Sept Iles, Quebec, on the way up, Anthony took an Oe. chryxus and saw but did not capture P. brevicauda. G. lygdamus was noted swarming on vetch and it was observed that the ubiquitous rapae is established this far north. Tilden collected at a hitherto unvisited area in Quebec, around Dunany, which is about 7 miles north of Lachute. His list indicates a typical Canadian Zone ecology, being of species common in this sort of habitat. The record of Celerio gallii, 10-vii, seems noteworthy, this sphingid occurring very spottily and cyclically (heavily parasitized) in the Northeast. Tilden also sampled another Quebec region, in the Gatineau Hills at Danford Lake, turning up 2 Oe. chryxus in an open grassy woodlot. He also lists some common sphingids taken in this latter region. Grey managed to get about an hour free of rainclouds which hovered over Mt. Albert, Gaspé, almost continually through mid-July. Nothing more was learned about the micro-habitats, and only a few specimens netted. The Schickshocks still beg for research---and a helicopter. In New Brunswick, Hensel reports that his E. laeta colony produced again this year. For Nova Scotia Ward has filed a considerable report of diurnals taken by various collectors. He observed a continued buildup of Thy. lineola near Halifax. He also turned in a list of diurnals collected by Robert Jollata near Brudenell, King's County, P. E. I., of interest since relatively little has been published about the butterflies of this Province. Ward had one good rearing record, of the noctuid Exyra rolandiana, on Sarracenia purpurea.

MAINE: Schweitzer collected at Camden in late July, reporting diurnals spotty but mostly locally as common as last year. He recorded 13 sp. of Catocala, among other moths. Brower's field trips, as usual, provided a widespread and fairly intensive sampling of the length and breadth of the State, covering 50 days, 1928 miles of car travel, 78 miles afoot, 180 hours of time. For this: 928 individual diurnals seen, representing 43 species. But of 27 of these butterfly species 10 or less specimens were seen. This is his lowest count ever, partly occasioned by a very unfavorable year, low temperatures and much cloudy and rainy weather. Still, the counts were made at such times as butterflies normally would be flying, and by an unquestioned master of the collecting art. How fantastic that this much effort should turn up few individuals than one might expect to see in a single day in a good locality. Brower and Grey both notice the black swallowtail coming back a bit after a low of many years' duration. Grey's penchant for bog, mountain and pocket area specialties resulted in better collecting; these species seldom fail and were present in reasonable numbers as sunshine permitted. However, Brower's unhappy experiences seem fairly characteristic of the 1967 season, one which not only disappointed many collectors and summer vacationists, but bankrupted many farmers. At least the lowering water table has been restored.

NEW HAMPSHIRE: Anthony sampled Mt. Washington, July 26, finding melissa plentiful and not too worn-out for this late date. The titania was not seen at all. (Note by LPG: The day I was up the mountain wasn't seen either). Holmes had a pat from Lady Luck and picked up an Apantesis quenseli female, resting on the moss, 13-viii.

MASSACHUSETTS: Holmes, collecting mostly in Essex Co., vic. Cape Ann, send in an annotated list of diurnals, plus a few moths recorded. Highlights are a colony of Hesperia metea located at Rockport, vi-10, and H. leonardus at Ipswich in late Aug. - early Sept. Four examples of Call. henrici were found in late May at Essex, and F. tarquinius was taken at Topsfield, viii-7. N. j-album and L. portlandia were seen for the first time in this area. Flowers, at Lenox, took four species he had not run across before in Berkshire Co., viz: L. portlandia, vii-24; N. j-album, vii-20; Catocala tristis, viii-16; Podosesia syringae, viii-14.

CONNECTICUT: Williams, vic. Pomfret, states that black light collecting was down both in quantity and quality species, which he attributes to the cold, wet season. Saturniids held up quite well and on 15-vii he took his first female C. angulifera, a local record. He mentions a few other nocturnals of some interest, including Catocala meskei and amasia. An aberrant male io moth was a choice capture: the black HW ocelli completely occluded all the normal markings. Fore wings were normal, hind wings all black.

NEW YORK: Arnold collected in a lowland marsh near Oneonta, viii-2. He took 8 species of butterflies including a good catch of the Baltimore (this is a notably late date for it). From vic. Ray Brook, Keji's notes indicate two broods of Coenonympha tullia ssp. (flying Jun. 15-July 9, and again Aug. 23- Sept. 15). He wants to record Lyc. phylaeus ssp. and Ancyloxypha numitor, with the explanation that these common species are rarities in his area, not seen for many years. Keji found the season very poor, on the whole; hairstreaks were scarce, monarchs very low. Shapiro, headquartering now at Cornell, has filed an extensively annotated list of diurnals from central New York, covering Tompkins, Schuyler and Cortland Counties. In a region long collected by students and staff of the University entomology department, the area still evidently has not been too well covered for butterflies since Shapiro has turned up eight new records for Tompkins Co. alone! These are: P. faunus, P. coenia, L. astyanas, T. bathyllus, H. leonardus, H. phylaeus, P. viator and A. vialis. New or unusual records for Schuyler Co. include L. thoe, E. comyntas, H. leonardus and P. coras. Additional surprises were captures of A. clyton, E. ontario, E. lisa, P. protodice, E. martialis, P. origenes, E. bimaculata, A. hegon, B. philenor, and the locating of a new colony of M. gryneus. An added bonus was a hybrid Limenitis, the rare "arthechippus" which is supposed to be arthemis x archippus. One might note that the arthemis-astyanax tension zone also runs through here or nearby, as witness his records of both this year and of "proserpina" as well. Shapiro says he knows of only a half-dozen records of the arthechippus and wonders how many collectors ever have seen this hybrid? Members with data please contact him; he expects to publish a note on this in 1968. (Note by LPG: I took one of these at Passadumkeag, many years ago, of the second brood, in a roadside situation where both species were flying. It was mahogany-color, as I recall, resembling the Florida ssp. The specimen was in the Prescott Rogers collection the last I knew.) Of many moths taken by students and staff at Cornell, Shapiro mentions as noteworthy an early April record of Copipanoilis styracis cubilis, and two fall records of the tropical immigrant, Magusa orbifera, x-2 and x-6. Early spring species were scarce or absent; in fact, Spring was absent: he puts it that Winter ended May 31 and Summer began June 1, which is about the way the 1967 season went, in New England. Shapiro lists samples of the early and late records for moths, along with the exhaustive resume of the diurnals, providing a valuable paper to add to the summary files.

NEW JERSEY: May's notes, as usual, cover most of the diurnals he saw in the West Caldwell area, with dates and spot locality information. He mentions also a number of moth captures which he considers to be good local records. May's reports have been filed for a number of years and are becoming of cumulative interest---not especially extensive but more or less a "model norm" so to speak, and as local records go they will help to provide such benefits as realistically can be expected from this "summary" project. The antiquarians of the twenty-first century will be able to understand how it was at West Caldwell; these notes, like many of the others on file, have solid historical value despite the lack of earthshaking "rarities" to catch the eye. May gives an interesting account of one of his suburban hikes on which he saw "hundreds" of rapae (vi-26) swarming on thistles and yet greatly outnumbered by A. lineola. This is indicative of the tremendous explosion of this immigrant skipper. His data also show that this was no year at all for monarchs. He has some new area records, viz: C. harrisii, vi-1; Call. henrici, iv-29; he also saw M. nycteis, vi-26, and P. protodice, vii-19. One male io moth, seen at night in Troy Meadows, was the first since 1959. Curtis was collecting at Whitesbog, Pemberton Co., vii-18, and ran into a large colony of S. edwardsii, on scrub oak.

PENNSYLVANIA: Straley took E. conspicua vii-28, and T. lineola vi-28, in Longwood Gardens, Kennett Square, Chester Co. Schweitzer found lineola common at Chalfont, Bucks Co., vi-26. Schweitzer also reports some new State records, to wit, Taeniocampa alurnia, iv-1, and a couple specimens of Graptolitha hemina on the same date, plus hemina form lignicosta in a bait trap on x-21. He evidently goes after the spring and fall noctuids, which often get neglected, so he has good notes on Zale, etc, and observed that he reared four of these seasonal specialties on an ornamental flowering Prunus, viz, Epiglaea decliva, Metaxaglaea viatica, Chaetoglaea sericea and Eupsilia morrisoni. He has a very good list of 21 species of Catocala; he also evidences the 1967 invasion of Magusa orbifera with another (x-10) record to add to Shapiro's New York captures. Curtis took Lib. bachmanni within the city limits at Philadelphia. He found Catocala lower than normal, vic. Philadelphia, and likewise at Sumneytown, Bucks Co., but states that innubens was for the first time as common as amatrix. Ehle, reporting from Lancaster Co., joins the New England collectors in declaring the season keyed by abnormally cold and wet weather (but it did end the drought, so perhaps better times lie ahead?) Best recoveries in diurnals were staged by L. bachmanni and F. tarquinius; nymphalids as a whole were up a bit. C. argiolus ssp. flew all summer. Most skippers continued scarce, Colias unimproved, monarchs away down. This region has been through a relatively large short-term climate fluctuation; it will be interesting to see how populations react to the improved rainfall. Shapiro collected a bit in the Philadelphia area and has added a full page of records, mainly of diurnals, highlighted by an early (iv-29) observation of rapae and protodice, and a couple of good late records, of eurytheme in Montgomery Co., xi-26, and cardui at Camden x-22. He mentions that it snowed iv-27. For this Zone then, "everybody talks about the weather". True, every year usually is decried by somebody as "abnormal" or otherwise contrarywise weatherwise to the ideals desired by collectors. But it still is necessary to select the weather as the big news of the 1967 season. It was, indeed, cold, wet and miserable on average, and thus bound to reflect in field attempts to collect insects. The cyclic low of the monarch butterfly perhaps should be mentioned as another major feature of this dismal season.

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

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