

## RECENT LITERATURE ON LEPIDOPTERA

(Under the supervision of PETER F. BELLINGER)

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### B. SYSTEMATICS & NOMENCLATURE

- Agenjo, R., "Consideraciones sobre el estudio de las formulas cromosómicas en los lepidópteros y sobre todo en el complejo de formas del grupo *Plebejus (Lysandra) coridon* Poda con la descripción de tres nuevas subespecies" [in Spanish]. *Graellsia*, vol. 14: pp. 1-15, 1 pl. 1956. Describes as new *P. c. menendez-pelayoi* (La Florida, 450 m., Santander), "*P. c. albicans burgalesa*" (Villaverde, 870 m., Burgos), "*P. c. albicans esteponina*" (Estepona, 810 m., Burgos). Discusses use of chromosome number in classification in this group. Prefers to include *albicans* under *coridon* in spite of difference in haploid chromosome number. Figures all Spanish races in color. [P.B.]
- Agenjo, R., "Monografía del género *Narrago* Wlk. (Lep. Geom.)" [in Spanish]. *Eos*, vol. 32: pp. 7-56, 3 pls., 15 figs., 1 map. 1956. Describes as new *N. isabel* (Puebla de Don Fadrique, 1164 m., Granada). Redescribes genus & other 3 spp. in great detail; map shows records from all parts of Palearctic region. [P.B.]
- Agenjo, Ramón, "Antwort an Herrn G. Meyer betrifft: Übergänge in der Genitalarmatur van *Bryophilia algæ* (Fabricius, 1775) und ihrer forma *pallida* (Bethune Baker, 1894). (Lep., Phalæn.)" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 42: pp. 192-197, 1 pl. 1957. Describes and figures examples of ♂ genitalia transitional between these forms, which are regarded by Meyer as good spp. [P. B.]
- Agenjo, R., "Monografía de las especies españolas de la familia Lymantriidae Hampson, 1892, con especial referencia a las de interés forestal" [in Spanish]. *Graellsia*, vol. 15: pp. 5-143, 11 pls., 30 figs. 1957. Describes as new *Olene fascelina iberica* (Pineda de la Sierra, 1211 m., Burgos). Redescribes the 17 Spanish Lymantriidae in great detail; figures adults (in color), venation, & genitalia of both sexes. Keys to subfamilies, tribes, & Spanish spp. [P.B.]
- Alberti, Burchard, "Über die Stammesgeschichtliche Gliderung der Zygænidæ nebst Revision einiger Gruppen (Insecta, Lepidoptera)" [in German]. *Mitt. zool. Mus. Berlin*, vol. 30: pp. 115-480, 62 pls., 33 figs. 1954. An important partial revision and discussion of phylogeny in this family. Divides family into subfamilies Zygæniæ, Phaudiniæ, Charideinæ, Chalcosiinæ, Anomeotinæ, Himatopterinæ, & Procridinæ (the largest subfamily, including all American zygænidæ). Describes as new: (Zygæniæ) *EPIORNA* (type *procrocioides* Bltr.); *PRÆZYGÆNA* (subgenus of *Epizygæna*; type *myodes* Druce); (Chalcosiinæ) *Heteropan rubricollum* (Kuatun, Fukien Prov., China); *Chalcosiopsis melli* (Siu hang, 240 km. N. of Canton, China); (Anomeotinæ) *Staphylinochrous heringi* ("Span. Guinea, Nkolentangan"); (Procridinæ) *PRIMILLIBERIS* (subgenus of *Illiberis*; type *laeva* Pung.), *I. (P.) fumata* (Likiang, 2000 m., N. Yunnan), *I. (I.) hönei* (Likiang), *I. (I.) ellenæ* (A-tun-tse, 3000 m., N. Yunnan), *I. (Zama) inermis* (Hoengshan, Yunnan), *I. (Z.) paracybele* (Canton), *I. (Z.) shensiensis* (1700 m., S. Shensi); *SVENIA* (subgenus of *Illiberis*; type *ulmivora* Graeser), *I. (S.) paradistincta* (W. Tien-mu-shan, Chekiang Prov.); *HEDINA* (subgenus of *Illiberis*; type *tenuis* Butler), *I. (H.) serrata* (Li-kiang, 2000 m., N. Yunnan), *I. (H.) albiventris* (Tapaishan in Tsinling, S. Shensi, 1700 m.); *KUBLAIA* (subgenus of *Illiberis*; type *heringi* Draes.); *DUBERNARDIA* (type *djureuma* Obthr.); *Phacusa tonkinensis* (Saigon); *FUNERALIA* (monobasic), *F. transiens* (W. Tien-mu-shan, Chekiang Prov.); *Balataea (B.) uniformis* (Mien-shan, Shansi, 1500 m.), *B. (B.) angusta* (Mokanshan, Chekiang Prov.), *B. (B.) intermediata* (Lungtan near Nanking, Kiangsu Prov.), *B. (B.) elegans* (W. Tien-mu-shan, Chekiang Prov.); *PSEUDOSESIDIA* (subgenus of *Balataea*; monobasic), *B. (P.) ægeriaeformis* (200 km. N. of Canton); *ALLOBREMERIA* (monobasic), *A. plurilineata* (W. Tien-mu-shan, Chekiang Prov.); *Tasema viridescens* (Likiang, 3000 m., N. Yunnan); *Alloprocris spielhagenæ* (Likiang); *Clela (C.) cyanescens* (Man-ti-shan, near Canton), *C. (C.) yunnana* (Likiang, 2000 m.), *SUBCLELEA* (subgenus of *Clela*), & type *C. (S.) parabella* (W. Tien-mu-shan, 1600 m., Chekiang Prov.), *C. (S.) aurulenta bella* (W. Tien-mu-shan); *Metanyctes sachtlebeni* (Benito Region, Spanish Guinea); *ETHIOPROCRIS* (monobasic), *E. togoensis* ("Togo, Hinterland"), W.

Africa); *NEOBALATÆA*, & type *N. nigriventris* (Usambara, E. Africa); *MENELIKIA* (monobasic), *M. jordani*; *PRÆPROCRIS* (subgenus of *Rhagades*; monobasic), *R. (P.) pseudomærens* (Peking, N. China), *NAUFOCKIA* (subgenus of *Rhagades*; type *brandti* Alberti); *LUCASIA* (subgenus of *Procris*; type *cirtana* Luc.); *ROCCIA* (subgenus of *Procris*; type *budensis* Spr.), *P. (R.) staudingeri* (Eibes, Taurus, & Beirut), *P. (R.) ambigua schakuhensis* (Schakuh Mts., Persia); *PRAVIELA* (subgenus of *Procris*; type *anatolica* Naut.); *Malihaca brunnea* (Colima volcano); *Acoloithus totusniger* (Colima volcano); *Gonio procris* (?) *rubrojugulata* (Colima volcano). The revision of the Procridiæ is the most detailed, but the American forms are only briefly considered. The family Ratardidæ is also discussed with reference to its possible relationship to the Zygenidæ. The revision is based on a thorough restudy of structural characters, notably of the venation and genitalia, which are discussed at length. The zoogeography of the family is treated in some detail. In an introductory section the necessary distinction between phylogeny and its imperfect representation in systematics is well explained. The work concludes with a classification, to subgeneric level, of the family, and a list of the 25 (of 65) genera of Chalcosiinæ and the 23 (of 67) genera of Procridiæ which the author has not seen. More than 40 plates showing genitalia, 11 of venation, 1 of antennal structure, 1 of miscellaneous zygænid types, & 4 of Procridiæ are among the illustrations. A most impressive paper. [P. B.]

Alberti, Burchard, "Untersuchung bayrischer Populationen der *Zygaena purpuralis* Brünn.-Gruppe" [in German]. *Nachrichtenbl. bayer. Ent.*, vol. 6: pp. 49-54. 1957. Study of populations of *Z. purpuralis* & *Z. pimpinellæ* from various parts of central Europe supports their specific distinctness. [P. B.]

d'Almeida, R. Ferreira, "Espécies e subespécies novas de Ithomiidæ (Lepidoptera-Rhopalocera)" [in Portuguese]. *Bol. Mus. nac.*, Rio de Janeiro, Zool., no. 173: 17 pp., 12 figs. 1958. Describes as new *Napeogenes paruensis* (Maracaná, Rio Paru de Leste, Pará, Brazil), *N. sylphis acreana* (near Vila Taumaturgo, Rio Juruá, Acre, Brazil); *Hypothryis honesta acreana* (same locality), *H. meterus arpi* (Itaituba, Tapajoz, Pará, Brazil); *Callithomia travassosi* (Dumba, Rio Araguaia, Mato Grosso, Brazil), *C. juruaensis* (near Vila Taumaturgo, Rio Juruá, Acre, Brazil); *Hypoleria plisthenes* (Carmo do Rio Claro, Minas Gerais, Brazil), *H. novaesi* (near Vila Taumaturgo, Rio Juruá, Acre, Brazil), *H. mulveriana* (Fordlândia, Rio Tapajos, Pará, Brazil); *Heterosais edessa covella* (Cojimies, Manabi, Ecuador). Two of the new spp. are not compared with others. Transfers *exornata* Haensch to *Hypoleria*. [P. B.]

Amsel, H. G., "Eine neue *Dysmasia*-Art aus Portugal (Lepidoptera: Tineidæ)" [in German]. *Beitr. naturkundl. Forsch. Südwestdeutschland*, vol. 14: pp. 130-131, 2 figs. 1955. Describes as new *D. lusitanella* (Singeverga). [P. B.]

Amsel, H. G., "Irakische Kleinschmetterlinge" [in German]. *Beitr. naturkundl. Forsch. Südwestdeutschland*, vol. 14: pp. 119-129, 1 pl., 15 figs. 1955. Describes as new: (Pyralidæ) *ANEPHOPTERYX*, & type *A. designella* (Tuba desert); *IRAKIA*, & type *I. pallens* (Quraitya, near Basra); *Dattinia mesopotamica* (Basra); (Tortricidae) *TORTRICOMORPHA*, & type *T. shaqlawana* (Shaqlawa); *Cnephasia kurdistana* (Shaqlawa); (Coleophoridae) *Colephora kurdistanella* (Shaqlawa). Annotated list of 90 spp., with some descriptive notes; 25 spp. (including above) are new to Iraq. [P. B.]

Amsel, Hans-Georg, "Kleinschmetterlinge vom mittleren Jordantal" [in German]. *Beitr. naturkundl. Forsch. Südwestdeutschland*, vol. 15: pp. 56-62, 1 pl., 6 figs. 1956. Describes as new: (Pyralidæ) *ANACTENIA*, & type *A. daganialis* (Dagania); *Dattinia theopoldi* (Zerqua River Colony); (Ethmiidæ) *Ethmia wursteri* (Zerqua River Colony). Annotated list of 64 spp. [P. B.]

Amsel, H. G., "Microlepidoptera venezolana I, II" [in German; Spanish & English summaries]. *Bol. Ent. venezolana*, vol. 10: pp. 1-336, 1 pl.; [2] pp., 110 pls. "1954" [1956, 1957]. Describes as new: (Pyralidæ, Craminæ) *NOVOCRAMBUS* (type *Crambus pygmaeus*); *CHIOPSIS* (*ACHILO* substituted in part II), & type *C. (i.e. A.) lignella*; (*Phycitinæ*) *Pseudodivona?* *albonigrella*; *AMYEOLOS* (type *Myelois venipars*); *Sematoneura minimella* (?Maracay); *Salebria?* *distinctella* (Caracas, Los Venados); *Oryctometopia venezuelensis*; *PRÆCOMOTIA*, & type *P. minimella*; (Endotrichinæ), *MICRONIX*, & type *M. nivealis*; (Pyralinæ) *Herculia venezuelensis* (Caracas, Los Venados); (Epipschiinae) *Macalla hyalinalis*, *M. asymmetrica*, *M. symmetrica*; *Phidotricha venezuelensis*; *ACCIDIPTA*, & type *A. major*; *Tioga?* *neotropica*; *Jocara venezuelensis* (Rancho Grande), *J. lutosalis*; *Aræopaschia goan-*

*toides*; *Arnatula?* *lativalva*; (Chrysauginae) *MICRORCA*, & type *M. bistrialis*; *PHRACHMOPSIS* (type *Hyperparachma butyropsis*), *P. congrualis* (Caracas, Los Venados); *VOGLIA*, & type *V. monotona*; *AHYLOSTICTA*, & type *A. affinalis*; *MICROSAUGE*, & type *M. bistrialis*; *MARTINODES*, & type *M. saccularis*; *BISIN-USIA* (type *Caphys palmipes*); *Thylacophora bilinealis* (Caracas, Los Venados); *UNGULOPSIS*, & type *U. jubatalis*; *Carcha undulatalis* (?Maracay); *Lepidomys costipunctata*; *LOPHOPEUROPSIS*, & type *L. flavostrialis*; *EPIPARACHMA*, & type *A. notabilis*; *QUADRISCHISTIS*, & type *Q. bistrialis*; *NEOCAPHYS*, & type *N. purpuralis* (Caracas, Los Venados); *Galasodes*, & type *G. nervosella*; *DISTORTIA*, & type *D. minimalis*; (*Schenobiinae*) *Schænobius latignathosius* *S. microforficellus*; (*Pyraustinæ*) *AUREOPTERYX* (type *Aulacodes calistoalis*); *COSMOPTEROSIS* (type *Aulacodes thetysalis*); *FALX* (*FALCIMORPHA* substituted in Part II), & type *F. sinuosalis* (?Maracay); *CLARKEIA* (*CLARKEOIDES* substituted in Part II) (type *Neurophyseta sabulalis*); *Scybalista tripunctalis*, *S?* *ochrofusalis*, *S?* *argentipunctalis*; *ZENAMORPHA* (type *Ischnurges discophorialis*; *NONAZOCHIS* (type *Azochis gripusalis*) *ASPARAGMA* (type *Anarmodia nebulosalis*); *ENNOMOSIA*, & type *E. geometridalis*; *COMPACTA* (type *Polygrammodes hirtalis*); *VINCULARIA* (*VINCULOPSIS* substituted in Part II), & type *V. venezuelensis*; *Leucochroma formosalis*; *LEUCOCHROMODES* (type *Leucochroma melusinalis*); *BICILIA*, & type *B. vogli*, *B. fuscalis*; *CHILOCROMA*, & type *C. calamochrella*; *BOCCHOROPSIS* (type *Bocchoris pharaxalis*); *CORE-MÄTA* (type *Bocchoris stigmatalis*); *BITALCULINA*, & type *B. argentipunctalis*; *Samea atrichonalis* (?Maracay); *Hileithia?* *costipunctalis* (Rancho Grande); *Leucinodes minimalis*, *L. pusilla*; *Eulepte vogli*; *PRÆACROSPILA* (type *Pilocrocis melanoprocis*); *ASTURODES* (type *Astura fimbriauralis*); *Salbiomorpha munroalis* (Caracas, Berg Avila), *S?* *minimalis*, *S. interruptalis*; *CERATOCILIA* (type *Pilocrocis liberalis*); *Ceratoclasis avitalis* (Caracas, Berg Avila); *Pterygisis?* *forsteri*; *Herpetogramma grisealis* (?Maracay); *ARASCHNOPSIS* (type *Lamprosema (Endotricha) subulalis*); *EUVALVA* (type *Lamprosema stenialis*); *Syallepta molestalis*, *S. intermedia*, *S. silacealis* (Caracas, Berg Avila), *S?* *venezuelensis*; *TRICHOGNATHOS* (type *Syallepta chronalis*), *T. bipunctalis*; *MARTINIA* (*MICROMARTINIA* substituted in Part II) (type *Syallepta mnemusalis*); *ATEGUMIA* (type *Syallepta matutinalis*); *ANTIERCTA* (type *Ercta ornatalis*); *COREMATARIA* (type *Pilocrocis infuscalis*); *APILOCROCIS* (type *Pilocrocis microbathra*); *PALPUSSIA* (type *Pilocrocis terminalis*), *P. squamipes*; *MARACAYIA* (type *Pilocrocis chlorialis*); *Omiodes martini*, *O. alboanalis*, *O. cervinalis*; *Phostria monotona*, *P?* *marginalis*, *P. memmialoides*; *PRÆPHOSTRIA*, & type *P. syalleptalis*, *P. flavalis*; *Desmia clarkei* (Caracas, Berg Avila), *D. decemmaculalis* (Caracas, Los Venados), *D. octomaculalis* (Rancho Grande); *SACCULOSIA* (type *Desmia isaralis*); *GLYPHOIDES?* *confiniodes* (Rancho Grande); *Diaphania subtilalis*, *D?* *fenestralis*; *Loxostege mancaloides* (Caracas, Los Venados), *L. saccularis*, *L. spinalis*, *L. macrospinalis* (?Maracay), *L. trispinalis*, *L?* *minimalis*; *LOXOMORPHA*, & type *L. citrinalis*; *PLANTEGUMIA*, & type *P. venezuelensis*; *Pyrausta bicornutalis* (Caracas, Berg Avila), *P. monotonigra* (?Maracay), *P. clarkei*; *PYRAUSTOPSIS* (type *Pyrausta tæniolalis*); *PORTENTOMORPHA* (type *Botys incalis*) and tribe *PORTENTOMORPHINI*; *PSEUDOPYRAUSTA* (type *Blepharomastix acutangulalis*); tribe *LINEODINI*; *Lineodes formosalis*, *L. venezuelensis*, *L. caracasia* (Caracas, Berg Avila); *LATIVALVA*, & type *L. pseudosmithii*; tribe *LATIVALVINI*; *Lativalva monotona*; tribe *DICHOGAMINI*; *ALATUNCUSIA* (type *Lygropia gilvicostalis*), & tribe *ALATUNCUSINI*; *MUNROEIA* (*MUNROEODES* substituted in Part II), & type *M. transparentalis*; *TRICHOVALVA*, & type *T. ledereri* (?Venezuela); *ÆNIGMA* (*ÆNIGMODES* substituted in Part II) (type *Homophysa pentascia*). (Tortricidæ) *Amorbia maracayana*. (Glyphipterygidae) *Tortyra caracasiae* (Caracas, Los Venados). (Cryptolechiidae) *Stemoma clarkei*, *S. badiella* (Caracas, Los Venados), *S. indistincta*, *S. monotona*, *S. vogli* (?Maracay), *S. cacaeциlla*; *Antæotricha forsteri* (?Maracay), *A. venezuelensis*, *A. martini*; *Timocratica?* *albella* (Caracas, Los Venados). (Tineidæ) *CERVITINEA*, & type *C. venezuelensis* (?Maracay); *Tiquadra nubilella*. Type locality of all new spp. is Maracay unless some other locality is named. Also names a "form" of *Dichogama redtenbacheri*. Sinks *Pachyzancla* & *Macrobotys* to *Herpetogramma*. Regards *Nymphulinae* & *Scopariinae* as inseparable from *Pyraustinæ*. Discusses venation, genitalia & relationships in Pyralidæ. Paper deals with 447 spp. (some not exactly determined), of which 398 are Pyralidæ; adults and ♂ genitalia of most are figured. See review in *Lepid. News*, vol. 12, p. 55. [P.B.]

- Amsel, H. G., "An index to 'A revision of the moths of the subfamily Pyraustinæ and family Pyralidæ' by Sir George Hampson, published in the Proceedings of the Zoological Society, London." *Proc. zool. Soc. London*, vol. 129: pp. 541-577. 1957. Index to last revision of family; separates available from Clerk of Publications of the Society. [P. B.]
- Amsel, H. G., "Pyraliden-Studien I (Lepidoptera: Pyralidæ)" [in German]. *Beitr. naturkundl. Forsch. Südwestdeutschland*, vol. 16: pp. 103-109, 1 pl., 4 figs. 1957. Describes as new: (Pyraustinæ) *Mecyna marioni* (Samarkand); (Pyralinæ) *PYRALOSIS* (type *Ulothricha terminalis*). Notes on *Pyralosis galactalis*, and on synonymy in *Mecyna*. [P. B.]
- Balogh, J., "A new subspecies of *Aricia allous* Hb. in Hungary." *Acta zool. Acad. Scient. hung.*, vol. 3: pp. 1-3. 1957. Describes as new *A. a. issekutzi* (Bükk Mt., Bályvány, 860 m.). [P. B.]
- Berger, L. A., "Clé pour la détermination des familles de macrolépidoptères et des groupes supérieurs de microlépidoptères (faune éthiopienne)" [in French]. *Lambillionea*, vol. 57: pp. 72-84. 1957 [1958]. Key for the determination of the families of Macrolepidoptera and higher groups of Microlepidoptera in the African fauna. Two new families are established: DUDGEONIDÆ (type genus: *Dudgeona*; cos-sids with an abdominal tympanal organ) and HIBRILDIDÆ (type genus: *Hibrildus*; differs from Pterothysanidæ in absence of the chætosema and position of Sc). The family Chrysotypidæ (Hampson, 1918, *Novit. zool.* 25: p. 385) is reestablished and separated from Thyrididae and Cossidae. The genus *Sabalia* belongs not to the Eupterotidae but to the Lemoniidae; this family, containing some palearctic spp., is also present in the Ethiopian region. These keys, based in part on the structure of the tympanic organ, will not be too easy to use. [P. V.]
- Berio, E., "Terzo contributo alla conoscenza del gen. *Ozarba* Wlk. (Lep. Noctuidæ)" [in Italian]. *Ann. Mus. civ. Stor. nat.*, Genoa, vol. 64: pp. 131-157, 98 figs. 1950. Describes as new *OZANA* (type *Metachrostis chinensis*); *FULVARBA* (type *Ozarba fulvescens*); *ARENARBA* (type *Ozarba arenacea*); *OBARZA* (type *Ozarba zernyi*). Lists 125 spp. examined, and arranges them in genera and species groups. Transfers *O. regula*, *O. pseudopunctigera*, & *O. pluristriata* to *Eustrotia*. Figures ♂ genitalia of many spp. [P. B.]
- Berio, E., "Contributo alla conoscenza di Noctuidæ. Poco note, diagnosi di nuove specie e note critiche" [in Italian]. *Doriania*, vol. 1, no. 34; 6 pp., 13 figs. 1953. Describes as new *Timora lancea* (Negrilli, Ethiopia); *Agrotis bialbifasciata* (Mogadiscio). Notes on spp. of *Timora*, *Vollega*, *Agrotis*, *Euxoa*; selects *Noctua lidia* as type of *Mesoeuxoa*. Type of *Agrotis* appears to be *exclamationis*. [P. B.]
- Berio, E., "Osservazioni su Noctuidæ del globo con descrizioni di nuove entità (Lepidoptera: Stictopterinæ, Euteliinæ, Nycteolineæ)" [in Italian; English summary]. *Ann. Mus. civ. Stor. nat.*, Genoa, vol. 69: pp. 75-86, 1 pl., 15 figs. 1957. Describes as new: (Stictopterinæ) *Lophoptera conspicua* (E. Madagascar, Anboise Road, Km. 57); *Odontodes uniformis* (Singapore); (Euteliinæ) *PARELIA* (monobasic), *P. albivirgula* (E. Madagascar, Ifanadiana district, near Ranomafana, 700 m.); *Eutelia* (?) *megacycla* (Kilimandjaro, Tanganyika); (Nycteolinae) *Gigantoceras fontainei* (Sankuru; Katako Kombe), *G. camerunica* (Bota, Kamerun), *G. viridis* (Lulua, Kapanza); *Characoma micropuncta* (Eala, Belgian Congo), *G. triangulum* (Kapanga, Belgian Congo); *Bryophilopsis simplex* (Elisabethville, Belgian Congo); *Symitha indicatella* (Kapanga); *Pardasena nolalana* (Katanga; Biano); *Megathripa nycteolla* (Kafakomba, Belgian Congo), *M. confusa* ("Kil. 311 da Kindu", Belgian Congo). *Gigantoceras* is transferred from Stictopterinæ. *Targallodes rufula*, *T. pyrosipa*, and *T. subrubens* (Euteliinæ) are distinct. Also names a "form" of *Stictoptera rhabdota* and an ab. of *Lophoptera methyalea*. [P. B.]
- Bernardi, G., "Note sur la taxonomie des genres *Belenois* Hb. et *Anaphæis* Hb. (Lep. Pieridae)" [in French]. *Rev. franç. Ent.*, vol. 20: pp. 47-53, 14 figs. 1953. Describes as new *PSEUDANAPHÆIS* (subgenus of *Belenois*; type *giæica* Godart). Discusses genitalia of *Belenois* spp. (all except *ogygia* were examined); concludes that *Anaphæis*, *Glycesta*, & *Pseudohuphina* are synonyms of *Belenois*. [P. B.]
- Bleszyński, S., "Studies on the Crambidæ. Part II. *Crambus radiellus tetricellus* n. ssp." *Bull. ent. Pologne*, vol. 25: pp. 161-164, 7 figs. 1956. New form from High Tatra Mts., in southern Poland. [J. M.]
- Bleszyński, S., "Studies on the Crambidæ. Part VIII. Notes on *Pediasia persella* (Toll)." *Bull. ent. Pologne*, vol. 25: pp. 161-164, 7 figs. 1956. The unknown ♀ of this sp. is described; figures of genitalia are given. [J. M.]

Bleszyński, S., "Studies on the Crambidæ. Part IX. Notes on the genus *Crambopsis* de Lattin." *Bull. ent. Pologne*, vol. 25: pp. 227-231, 7 figs. 1956. Describes as new *C. malacelloides* from Tasmania and St. Aignan; *C. m. javanicus* from Java. The genitalia are figured. [J. M.]

Bleszyński, Stanislaw, "Studies on the Crambidæ (Lepidoptera). Part XIV. Revision of the European species of the generic group *Crambus* F. s. l." [in English; Polish & Russian summaries]. *Acta zool. cracov.*, vol. 1: pp. 161-622, 66 pls. 1957. Describes as new *MESOCRAMBUS* (type *Crambus candiellus*); *METACRAMBUS* (type *C. caretellus*); *Catoptria pseudociliella* (N. Caucasus); *CHRYSOCRAMBUS* (type *Crambus cassentiniellus*); *CHRYSOCRAMBOIDES* (subgenus of *Chrysocrambus*; type *Phalæna craterella*); *NEOCRAMBUS* (type *Crambus wolfschlägeri*). Revision of the 121 European spp. of *Crambus* s. l., all but 6 of which have been studied by the author. In addition to the above new genera, the spp. are placed in *Crambus*, *Agriphila*, *Catoptria*, *Pediasia* (most spp. in these 4), *Crambopsis*, *Thisanotia*, *Xanthocrambus*, & *Calamotropha*. Genera and available spp. are redescribed. Previous classifications, problems of classification, and external and genital morphology are discussed at length. There is a key to genera but none to spp. [P. B.]

Bleszyński, Stanislaw, "Studies on the Crambidæ (Lepidoptera). Part XV. Notes on several species of the genus *Crambus* F." [in Polish, English summary]. *Bull. ent. Pologne*, vol. 26: pp. 89-92, 2 pls. 1957. *C. topiarius* from N. America is a good sp., not a ssp. of *C. hortuellus*. *C. labradoriensis* resembles very much *C. alienellus* from boreal Europe and the specific distinctness of *C. labradoriensis* is thus not quite obvious; *C. perrellus innotellus* and *C. pascuellus floridus* are distinct spp.; *C. carpenterellus* is a ssp. of *C. hamellus*, not a distinct sp. Genitalia are figured. [J. M.]

Boursin, Ch., "Eine neue *Allophyes* Tams aus Mittelchina (aus Dr. Höne's China-Ausbeuten) (Beiträge zur Kenntnis der 'Agrotidae-Trifinae', XCIII (93))." [in German]. *Zeitschr. wiener ent. Ges.*, vol. 42: pp. 103-106, 1 pl. 1957. Describes as new *A. heliocausta* (Tapai-shan in Tsinling, S. Shensi, China), *A. benedictina pseudasiatica* (Haifa, Palestine), *A. asiatica cypriaca* (Limasso, Cyprus). [P. B.]

Boursin, Ch., "Vorläufige Diagnosen einiger neuer Phalænidæ von der Kanaren nebst Beschreibung eines neuen Subgenus. (Beiträge zur Kenntnis des 'Agrotidae-Trifinae', XCVIII (97))" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 42: pp. 140-143. 1957. Describes as new *Triphæna noacki* (Arafo, 400 M., Teneriffe); *Bryonycta pineti opulenta* (Cumbre, 1000 m., Teneriffe); *NYCTOBRYA* (subgenus of *Cryphia*; type *C. simonyi*); also new "forms" of *T. noacki* & *Scotia trux*. [P. B.]

Boursin, Ch., "Trois nouveaux genres d'Asie antérieure de la sous-famille des Zenobiinæ (Lep. Noctuidæ)" [in French]. *Bull. mens. Soc. linn. Lyon*, vol. 27: pp. 4-6. 1958. Descriptions of three new genera in the subfamily Zenobiinæ from anterior Asia: *EREMOPHYSA* (type species: *Sidemia apothinea* Brandt); *ANAMECIA* (type species: *Catamecia deceptrix* Staudinger); *PARACENTROPUS* (type species: *Scythocentropus cyrus* Brandt). [P. V.]

Boursin, Ch., "Zwei neue Cuculliinæ aus Ostasien. Aus Dr. H. Höne's Ausbeuten. (Beiträge zur Kenntnis der 'Noctuidæ-Trifinae', XCVI, 96)" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 43: pp. 45-48, 1 pl. 1958. Describes as new *Isopodia hönei* (Kobe, Japan); *Telorta falcipennis* (Canton, China). [P. B.]

Bradley, J. Chester, "Draft of the revised English text of the Règles." *Bull. zool. Nomencl.*, vol. 14: pp. 7-285. 1957. See notice in *Lepid. News*, vol. 11: p. 170.

Bradley, J. D., "A new species of xylorictid moth bred from coffee in East Africa." *Bull. ent. Res.*, vol. 49: pp. 25-26, 4 figs. 1958. Describes as new *Odites semibrunnea* (Kiambu, Njuno Estate). [P. B.]

Brown, F. Martin, "Colorado butterflies. Part II. Danaidæ, Heliconiidæ, Nymphalidæ." *Proc. Denver Mus. nat. Hist.*, no. 4: pp. 33-112, 186 figs. 1955. Brief descriptions & notes on habits & distribution of 65 spp.; all are figured. [P. B.]

Brown, F. Martin, Donald Eff, & Bernard Rottger, "Colorado butterflies. Part III. Libytheidæ, Riodinidæ and Lycenidæ." *Proc. Denver Mus. nat. Hist.* no. 5: pp. 113-176, 148 figs. 1955. See review in *Lepid. News*, vol. 11: pp. 57-60.

Brown, F. M., "Statistics and taxonomy." *Lepid. News*, vol. 11: pp. 1-3. 1958.

Brown, F. M., "The type locality for *Ochlodes yuma*." *Lepid. News*, vol. 11: pp. 153-154. 1958.

Burdick, William N., "A new race of *OEneis chryxus* from the Olympic Mountains of Washington (Satyridæ)." *Lepid. News*, vol. 11: pp. 22-26, 1 pl., 2 figs. 1958. Describes as new *OE. c. valerata* (Hurricane Ridge, Clallam Co., Wash.).

- Butler, Robert B., & Charles V. Covell, jr., "Megathymus yuccae in North Carolina." *Lepid. News*, vol. 11: pp. 137-141, 8 figs. 1958.
- Cary, Margaret M., "A new species of *Phlegethonius* (Sphingidae) from Hispaniola." *Lepid. News*, vol. 11: pp. 107-112, 6 figs. 1958. Describes as new *P. johanni* (Savanne, Haïti).
- Clarke, J. F. Gates, "A new genus and two new species of Microlepidoptera from Japan (Gelechiidae)." *Ent. News*, vol. 69: pp. 1-5, 1 pl. 1958. Describes as new *PARALIDA* (monobasic), *P. triannulata* (Honshû, Kinki, Ikeda; reared from *Melia azedarach*); *Chelaria sapindivora* (Honshû, Kinki, Nisinomiya; reared from *Sapindus mukorossi*). [P. B.]
- Clench, Harry K., "Cossidae from Chile (Lepidoptera)." *Mitt. münchen ent. Ges.*, vol. 47: pp. 122-142, 3 pls. 1957. Describes as new *RHIZOCOSSUS*, & type *R. munroei* (Caramavida); *Givira leonera* (La Leonera, Rancagua); *Philanglaus penai* (Pichinachuel, 1100-1400 m.); *PHILIODORON*, & type *P. cinereum* (La Leonera, 1700 m.), *P. frater* (Buchen, 1300 m.). Descriptive notes on spp. of *Chilecomedia* (with notes on related genera) & *Acousmaticus*; discussion of *Givira-Langsдорfia* group, with generic key to part of this group. [P. B.]
- Clench, Harry K., "Synonymy of two African Euteliinae (Noctuidae)." *Lepid. News*, vol. 11: pp. 214-215. 1958.
- Comstock, John A., "On the early stage of the Lepidoptera (abstract)." *Lepid. News*, vol. 11: p. 4. 1958.
- Crosson du Cormier, A., P. Guérin, & H. de Lesse, "Une nouvelle forme de *Boloria* aux Alpes Pontiques" [in French]. *Lambillionea*, vol. 57: pp. 34-37. 1957. Description of a new subspecies of *Boloria* (Nymphalidae) from the Pontic Alps: *B. pales pontica* (Zigana Daglari, 2300 m.). It is unfortunate that three authors were necessary to describe only one subspecies; it does not facilitate the citation of the authors' names in the bibliographical citation. [P. V.]
- Daniel, Franz, "Berichtigung zu meinem Artikel: 'Untersuchung der Typen von *Endrosa pseudokuhlwaini* Borbr. (Lep.-Het.)'" [in German]. *Nachrichtenbl. bayer. Ent.* vol. 6: pp. 63-64. 1957. Regards *subalpina* & *melanomos* as spp. of *roscida*. [P. B.]
- Daniel, Franz, "Celama cicatricalis Tr. und *confusalis* HS. nebst ihren Formen. (Lep. Nolidae)" [in German]. *Nachrichtenbl. bayer. Ent.*, vol. 6: pp. 113-116, 4 figs. 1957. Describes as new *C. confusalis fumosensis* (Altenberger Wald, 600 m., Überetsch, S. Tyrol). Distinguishes spp. & describes variants. [P. B.]
- Daniel, Franz, "Pæciocampa populi L. und *Pæciocampa alpina* Frey" [in German]. *Nachrichtenbl. bayer. Ent.*, vol. 6: pp. 17-22. 1957. Distinguishes spp. & surveys races & variants of each. [P. B.]
- van Deurs, Wilhelm, "Sommerfugle. VII. Fjermøl" [in Danish]. *Danmarks Fauna*, no. 52: 56 pp., 6 pls., 55 figs. 1948. Handbook of Danish Pterophoridae & Orneodidae, with figs. of adults and some larvæ & ♂ genitalia. Keys to genera and spp., & to families of micros. Additions & corrections to Part VI (Pyralidae; 1944). [P. B.]
- Diakonoff, A., "A note on Microlepidoptera from South China (Lepidoptera: Tortricidae & Gelechiidae)" [in English; German & Russian summaries]. *Beitr. Ent.*, vol. 8: pp. 118-122, 1 pl. 1958. Describes as new *Cacæcia euroca*; notes on *Adoxophyes cyrtosema*, *Cacæcia micaceana*, & *Psorosticha zizyphi*. All from Canton, reared from *Citrus*. [P. B.]
- Dos Passos, Cyril F., & Lionel Paul Gray, "A new name for *Argynnis lais* Edwards (Lepidoptera Rhopalocera)." *Journ. New York ent. Soc.* vol. 63: pp. 95-96. "1955" [1956]. Proposes *helena*, new name, to replace *lais* Edw. which is preoccupied by *lais* Scudder. Full present name of insect is *Speyeria (Speyeria) atlantis helena*. [W. C.]
- Dufay, C., "Les espèces asiatiques du genre *Abrostola* O. (*Unca* auct.) (Lepidopt. Agrotidae). Contribution à l'étude des agrotidés quadrifinés 4" [in French]. *Bonner zool. Beitr.*, vol. 8: pp. 307-321, 2 pls. "1957" [1958]. Describes as new *A. proxima* (Li-kiang, N. Yunnan, 4000 m.), *A. major* (E. Tien-mu-shan, Chekiang), *A. obscura* (Li-kiang, N. Yunnan, 4000 m.), *A. dejearni* (Siao-Loû, W. Setchouen), *A. crinita* (Ta-tsien-Lou, W. Setchouen). Selects lectotype for *A. clarissa*, Sinks *A. swisharyonis* to *A. anophioides*; describes genitalia of latter & *A. abrostolina*. [P. B.]
- Dufrene, A., "Microlépidoptères de la faune belge (huitième note)" [in French]. *Bull. Inst. Roy. Sci. nat. Belg.*, vol. 33, no. 32; 16 pp., 3 figs. 1957. Notes on some Microlepidoptera of the Belgian fauna and description of *Elachista postremella* n. sp. (Elachistidae), Gilly and Watermael. [P. V.]

- Ehrlich, Paul R., "Systematics and subspecies." *Lepid. News*, vol. 11: pp. 155-158. 1958.
- Ehrlich, Paul R., "The higher systematics of the butterflies." *Lepid. News*, vol. 11: pp. 103-106. 1958.
- Ferguson, Douglas C., "Notes on Larentiinæ—new records and corrections (Lepidoptera: Geometridæ)." *Canad. Ent.*, vol. 90: pp. 42-43. 1958. *Hydria*, type *undulata*, has priority over *Calocalpe*. American record of *Thera variata* is a misdetermination of *Dysstroma* sp. *Lygris populata* (Alaska) & *Perizoma alchemillata* (Newfoundland) newly recorded from North America. [P. B.]
- Fragoso, Sergio, "Gênero *Cissura* Walker, 1854 (Lepidoptera, Heterocera, Arctiidæ)" [in Portuguese]. *Rev. brasil. Biol.*, vol. 12: pp. 411-416, 21 figs. 1952. Redescribes genus, & type *C. decora*. [P. B.]
- Fragoso, Sergio, "Sôbre *BERNATHONOMUS* (Lepidoptera, Heterocera, Arctiidæ)" [in Portuguese]. *Rev. brasil. Biol.*, vol. 13: pp. 179-189, 36 figs. 1953. Describes as new *BERNATHONOMUS* (type *piperita* H.-S.), and *B. minuta* (Salesópolis, Boracéia, São Paulo, Brazil); redescribes *B. piperita* & *Opharus procoides*. [P. B.]
- Freeman, T. N., "A new species of the genus *Aphania* (Olethreutidae)." *Lepid. News*, vol. 11: pp. 27-28, 4 figs. 1958. Describes as new *A. salicaceana* (Red Deer, Alberta).
- Freeman, T. N., "Presidential address to the Seventh Annual Meeting of the Lepidopterists' Society." *Lepid. News*, vol. 11: pp. 97-99. 1958.
- Freeman, T. N., "The Archipinae of North America (Lepidoptera: Tortricidæ)." *Canad. Ent.*, suppl. no. 7: 89 pp., 18 pls. (258 figs.). 1958. Describes as new *ARCHIPPUS* (type *Tortrix packardiana*). Redescribes genera and spp., with keys; figures adults and genitalia. The revision covers the spp. listed in McDunnough's Checklist under *Adoxophyes*, *Pandemis*, *Archips*, *Batodes*, and *Argyrotænia*, and many placed there in *Tortrix*; they are here redistributed among the above genera (except *Tortrix*), and *Choristoneura*, *Syndemis*, *Ptycholoma*, & *Clepsis*. *Tortrix baboquivariana* is a phalonidiid. [P. B.]
- v. Fuchs, W., "Tagfalter (Lep. Rhopal.)" [in German]. *Beitr. Fauna Perus*, vol 4: pp. 83-84. 1954. Briefly describes as new *Teriocolias yauta* (Cordillera, various localities); *Argyrophorus picota* (near Ayacucho, 4000-5000 m.); *Lymanopodia sivica* (above Sivia, 2500-3000 m.); also "vars." of *Papilio archidamus* & *Danaus gilippus*. [P. B.]
- Gillham, Nicholas W., "Subspecies versus geographic variation in Caribbean populations of *Anartia jatrophae* Johansson (Lepidoptera, Nymphalidæ)." *Amer. Mus. Novit.*, no. 1845: 22 pp., 5 figs. 1957. Sinks spp. *saturata*, *jamaicensis*, *luteopicta*, *guantanamo*, *semifusca*, & *intermedia* to *A. j. jatrophae*, after showing that divisions of populations based on wing length or on various pattern characters are discordant, and that recognizing subspecies obscures actual pattern of geographic variation. Study based on material used in revision by Munroe (1942) in which 3 of above spp. were named. [P. B.]
- Gozmány, L. A., "Notes on the generic group *Stomopteryx* Hein., and the descriptions of some new Microlepidoptera." *Acta zool. Acad. Scient. hung.*, vol. 3: pp. 107-135, 8 figs. 1957. Describes as new *S. hungaricella* (Budakeszi, Hárbsbokorhegy, Hungary); *Syncopacma montanata* (Retyezát Mts., Rumania), *S. incognitana* (Gumpoldskirchen, Austria; reared from *Onobrychis sativa*), *S. finlandica* (Kirkkonummä, Finland); *LIXODESSA* (type *Aproærema ochrofasciella*), *L. schönmanni* (Budakeszi, Hárbsbokorhegy, Hungary; reared from *Cytisus austriacus*); *IWARUNA* (monobasic), *I. heringi* (Pola, Istria; reared from *Bonjeania hirsuta*). Partial revision of European spp. of "*Stomopteryx*"; all but five of those seen are here placed in other genera, and others are transferred to this group of genera from *Anacampsis* etc. Also describes as new: *Xystophora parvulata* (Budakeszi, Hárbsbokorhegy, Hungary); *OROCINTRUS* (Cosmopterygidæ; monobasic), *O. perplexus* (Budakeszi, Hárbsbokorhegy); *Iosphricitis impugnata* (Chielana, Spain); *Pyroderces casaris* (Zengg, Croatia); *Hemimene quereti* (Budakeszi, Hárbsbokorhegy); *Elachista infamiliaris* (Budakeszi, Farkas-völgy). Sinks *Epermenia kroneella* to *E. petrusella*. Describes previously unknown male of *Pyroderces klimeschi*. [P. B.]
- Grey, L. P., "Warren's argynnid classification." *Lepid. News*, vol. 11: pp. 142-146, 2 pls. 1958.
- Hackman, Walter, "On some Microlepidoptera described by Embrik Strand." *Norsk ent. Tidsskr.*, vol. 9: pp. 227-229, 1 fig. 1955. Sinks *Nothris kalevalella* to *N. hoffmanniella*; *Phtorimæa fenicella* to *P. nordlandicolella*; *Coleophora aethiopiformis* to *C. fuscedinella*; notes on *Agonopteryx arctica*. [P. B.]
- Hannemann, Hans Joachim, "Anhang zur natürlichen Gruppierung der europäischen Arten der Gattung *Depressaria* s.l. (Lep. Oecoph.)" [in German]. *Mitt. zool. Mus.*

- Berlin, vol. 30: pp. 35-37, 2 figs. 1954. Redescribes "*D.*" *radiata*, a gelechiid (generic assignment uncertain). Sinks *D. quintana* to *D. gallicella*, and *Martyrhilda gozmanyi* to *M. preisseckeri*. [P. B.]
- Hardwick, David F., "Taxonomy, life history, and habits of the elliptoid-eyed species of *Schinia* (Lepidoptera: Noctuidæ), with notes on the Heliothidinæ." *Canad. Ent.*, suppl. no. 6: 116 pp., 24 pls. (194 figs.). 1958. Describes as new *S. villosa intermontana* (Mt. Hamilton, 6 mi. E. of Nicola L., British Columbia, 2,500 ft.), *S. v. conizæ* (Chihuahua, Mex.), *S. sueta sierræ* (Lassen Peak, 7,500 ft., Shasta Co., Calif.), *S. s. martini* (6 mi. S. of Vernon, British Columbia, 1,400 ft.). As used here *Schinia* includes the genera *Melicleptria*, *Alaria*, *Trypana*, *Rhodophora*, *Adonisea*, *Heliophanæ*, *Oxylos*, *Rhododipsa*, *Dasyphoudea*, *Pseudotamila*, *Eupanychis*, *Thyreion*, *Incita*, *Palada*, & *Chlorocleptria* (all new synomy), and *Heliononcha indiana*. The group which is redescribed here is probably not monophyletic; 19 spp. are included, of which *Melicleptria græfiana* could not be placed exactly since the "type" is apparently mislabelled. Life history and early stages are discussed at length and (for 7 spp.) described in great detail; adults and some larvæ and pupæ are figured in color. The author would include *Pyrrhia* and *Eutrichopsis* in this subfamily, but would transfer the *Grotella* group to the Acontiinæ. [P. B.]
- Herbulot, C., "Une nouvelle sousespèce de *Crocallis dardoinaria* Donzel" [in French]. *Lambillionea*, vol. 57: pp. 51-55, 4 maps. 1958. Description of a new ssp. of this geometrid: *C. d. atlantica* (W. France). Four maps show the distribution in France of 4 ssp. of Geometridæ: *C. d. dardoinaria*, *C. d. atlantica*; *Pachynemia t. tibiaria*, *P. t. pravieli*; *Ortholitha p. peribolata*, *O. p. culti*, *O. c. celnarria*, *O. c. gerardini*; and the distribution of ssp. of Lusitanian spp. on all sides of the Pyrenees Mts. [P.V.]
- Hering, Erich M., *Bestimmungstabellen der Blattminen von Europa einschliesslich des Mittelmeerbeckens und der Kanarischen Inseln*. Vol. I: *Pflanzengattungen A-L*; *Erzeuger Nr. I-3133* pp. (1)-648. Vol. II: *Pflanzengattungen M-Z*; *Erzeuger Nr. 3134-5551*: pp. (649)-1185. Vol. III: *Neubeschreibungen von Minen-Erzeugern; Systematische Übersicht der Wirtschaftsplanten und der Minen-Erzeuger; Abbildungen*: 221 pp., 725 figs.'s Gravenhage: Junk. 1956. Describes as new *Gnorimoschema philolycrii* (Andalusia). See review in *Lepid. News*, vol. II: pp. 177-178.
- Higgins, L. G., "Butterflies in Kurdistan." *Entomologist*, vol. 91: pp. 38-45. 1958. Describes as new *Polyommatus amandus gina* (Sersang); *Lysandra bellargus shakla* (Haji Omran, 5500 ft.). Records of 65 other spp.; 6 Lycænidæ & 3 Hesperiidæ new for Iraq. [P.B.]
- Holik, Otto & Leo Sheljuzhko, "Über die Zygænen-Fauna Osteuropas, Kleinasiens, Irans, Zentralasiens und Sibiriens (3. Fortsetzung)" [in German]. *Mitt. münchen Ent. Ges.*, vol. 47: pp. 143-185. 1957. Describes as new subgenus *HUEBNERIANA* of *Zygæna* (type *loniceræ*); *Z. (Thermophila) meliloti* spp. *estonica* (near Reval, Estonia), *teberdina* (Teberda, Caucasus), *tarkiana* (Okjuz-tau Mts., Temir-Chan-Shura, 2000 m.), *kozshubejii* (Novyj Atonj, Transcaucasia), *marirosica* (Daralagaz Mts., Armenia), *occido-sibirica* (Tobolsk region, W. Siberia); also names local population from E. Carpathian region, described by Caradja, *Z. m. caradjai*, without additional description & apparently without having seen specimens. Also names several "forms". [P.B.]
- Holst, Preben, "To nye danske sommerfugle: *Hydræcia nordstrami* Horke og *Perizoma hydrata* Tr." [in Danish]. *Ent. Meddelelser*, vol. 28: pp. 145-150, 18 figs. 1957. New Danish records; figures of adults, and of genitalia with those of other spp. for comparison. [P.B.]
- Hovanitz, William, "The role of genetics in the taxonomy of the Lepidoptera." *Lepid. News*, vol. 11: pp. 10-12. 1958.
- Howarth, T. G., "A revision of the genus *Neozephyrus* Sibatani and Ito (Lepidoptera: Lycenidæ)." *Bull. British Mus. (Nat. Hist.) Ent.*, vol. 5: pp. 233-272, 13 pls. 1957. Describes as new *N. sikkimensis* (Sikkim), *N. nigroapicalis* (Siao-lou), *N. marginatus* (Mo-Sy-Mien, Szechwan), *N. tytleri* (Manipur, N. India), *N. saundersi* (Chung thang, Sikkim), *N. yunnanensis* (Bahand, Yunnan), *N. chinensis* (Se-Pin-Lou-Chan, Ya Tcheou), *N. souleana augustimargo* (Tsekou, Yunnan), *N. disparatus* (Weisi, Yunnan), *N. d. pseudotaiwanus* (Mareppa, Formosa), *N. d. pseudoletha* (Khasia Hills, Assam), *N. d. interpositus* (Sikkim), *N. heleneæ* (Siao-lou), *N. bhutanensis* (Trongsa, 6,500 ft., Bhutan); *AUSTROZEPHYRUS* (type *Dipsas absolon* Hewitson). Transfers *watsoni*, *souleana*, *dubernandi*, & *syla* to *Neozephyrus* from *Thecla*, *duma* & *birupa* from *Dipsas*; *borneana* from *Thecla* and numerous spp.

- from *Zephyrus* to *Neozephyrus*. Redescribes spp.; gives keys to species and species groups, the latter including *Astrozephyrus* and *Teratozephyrus*. The last genus, with 14 spp., is not dealt with except for the new synonymy *tsangkie* (=*doni*). [P. B.]
- Howarth, T. G., *Neozephyrus watsoni* Evans: a correction." "Entomologist, vol. 91: p. 14. 1958. Name to be attributed to Howarth, 1957. [P. B.]
- Inoue, Hiroshi, "Notes on the scientific name of some moths (2)" [in Japanese]. *Trans. lep. Soc. Japan*, vol. 4: pp. 7-8. 1953. Synonymy and key for *Albara acuminata ogasaware* and *Betalbara manleyi* (Drepanidae). [T. I.]
- Inoue, Hiroshi, "Notes on some Japanese Larentiinae and Geometrinae (Geometridae)." *Tinea*, vol. 1: pp. 1-18, 1 pl., 21 figs. 1953. Describes as new 6 genera: *ECHTHROCOLLIX* (type *minuta* Butler), *HERBULOTIA* (type *agilata* Christoph), *PSEUDERANNIS* (type *lomozenia* Prout), *RAMOBIA* (type *basifuscaria* Leech), *NIPPPONALCIS* (type *rinosa* Butler), and *GYMNOCLEORA* (type *charon* Butler); 4 species: *Abraxas minax* (Honshu), *Ramobia mediodivisa* (Honshu), *Alcis silvicola* (Honshu, Kyushu), and *Aspitates obliquizonata* (Honshu); 3 subspecies: *Hydriomena caerulea insulata* (Honshu), *Racotis boarmiaria japonica* (Honshu, Kyushu), and *Gonodontis bidentata harutai* (Honshu). *A. minax* is a remarkable sibling species allied to the common *A. miranda*; *minax* is single-brooded while *miranda* is double-brooded; immature stages of the former unknown. [T. I.]
- Inoue, Hiroshi, "Synonymic notes on some moths from Japan and adjacent countries." *Boll. Lab. Zool. gen. agr.*, Portici, vol. 33: pp. 657-672. 1956. Numerous new synonyms, in Thyrididae, Zygænidæ, Heterogeneidæ, Geometridæ, Drepanidæ, Thyatiridæ, Lasiocampidæ, Lymantriidæ, Notodontidæ, Noctuidæ, & Arctiidæ. Describes as new *MUJIAOSHAKUA* (Geometridæ; type *Nemoria plana*). [P. B.]
- International Commission on Zoological Nomenclature, "Opinion 494. Validation under the Plenary Powers of the generic name *Diloba* Boisduval, 1840, and designation under the same Powers of a type species in harmony with established usage for the genus *Episema* Ochsenheimer, 1816 (Class Insecta, Order Lepidoptera)." *Opin. Decl. intern. Comm.*, vol. 17: pp. 267-286. 1957. *Diloba*, type *cæruleocephala*, *Episema*, type *glaucina* D. & S., *Dilobinae*, & *Episemidae* placed on *Official Lists*; *Heteromorpha* Hbn., *Episema* Cope & Jordan, & *trimacula* D. & S., placed on *Official Indexes*. [P. B.]
- International Commission on Zoological Nomenclature, "Direction 96. Determination of the relative priority to be accorded to certain specific names published in 1775 for taxa belonging to the Order Lepidoptera (Class Insecta)." *Opin. Decl. intern. Comm.*, vol. 19: pp. (i)-(xiv). 1958. Arising out of Opinion 516, *circé* Fabr. has priority over *proserpina* [D. & S.], *pandora* [D. & S.] over *maja* Cramer, *icarus* Rott. over *icarus* Cramer (all described in genus *Papilio*). Placed on *Official List*: *circé*, *pandora*, *icarus* Rott., *penelope* Schaufuss (oldest valid name for sp. named *icarus* by Cramer), *Brintesia* Fruhst. (type *proserpina* =*circé*), *Pandoriana* Warren type *maja*=*pandora*). Placed on *Official Index*: *icarus* Cramer. [P. B.]
- International Commission on Zoological Nomenclature, "Direction 99. Addition to the *Official List of Family-Group Names in Zoology* of the names of certain family-group taxa belonging to the Order Lepidoptera (Class Insecta), the names of the type genera of which have already been placed on the *Official List of Generic Names in Zoology*." *Opin. Decl. intern. Comm.*, vol. 1F: pp. 161-174. 1958. Morphidæ, Satyridæ, Coliadinae, Argynnidae, Apaturidæ, Danaidæ, Limenitidinae, Nymphalidæ, and Papilionidæ placed on *Official List*; invalid forms of these names placed on *Official Index*. [P. B.]
- International Commission on Zoological Nomenclature, "Opinion 500. Validation under the Plenary Powers of the spelling Pieridæ for the name of the family-group taxon having the genus *Pieris* Schrank, 1801 as its type genus (Class Insecta, Order Lepidoptera)." *Opin. Decl. intern. Comm.*, vol. 17: pp. 395-422. 1958. Pierides, Pieridina, and Pieridae are placed on *Official Index*. [P. B.]
- International Commission on Zoological Nomenclature, "Opinion 501. Validation under the Plenary Powers of the specific name *adippe* as published in the combination *Papilio adippe* in 1775 in the anonymous work by Denis & Schiffermüller commonly known as the *Wiener Verzeichniss* to be the specific name for the High Brown Fritillary and validation under the same Powers of a neotype for the foregoing nominal species (Class Insecta, Order Lepidoptera)." *Opin. Decl. intern. Comm.*, vol. 18: pp. 1-64, 3 pls., 1 fig. 1958. Suppresses, for purposes of Laws of Priority and Homonymy, *cydippe* L., 1761, and *adippe* L., 1767 (published in genus *Papilio*),

and later uses of these names prior to 1767 and 1775 respectively; suppresses, for purposes of law of priority only, *berecynthia* Poda, 1761. *Papilio adippe* [D. & S.], 1775 is to be treated as valid, and a neotype is designated (specimen from Mödling, near Vienna, in Vienna Museum). *Fabriciana* Reuss, 1920, *adippe* D. & S., *niobe* L., 1758, and *cyclippe* L., 1767 are placed on *Official Lists*. Distinction between spp. *adippe* and *niobe* is pointed out in an appendix, which also gives data on neotype; both spp. and their genitalia are figured. [P. B.]

International Commission on Zoological Nomenclature, "Opinion 503. Designation under the Plenary Powers of a type species in harmony with existing usage for the generic name *Cupido* Schrank, 1801 (Class Insecta, Order Lepidoptera) and matters incidental thereto." *Opin. Decl. intern. Comm.*, vol. 18: pp. 121-140. 1958. Type is *minimus* Fuessly, 1775. *Cupido*, *Everes*, *Maculinea*, *minimus*, *argiades*, & *arion* are placed on *Official Lists*, with *Everesi* & *Cupidinidi*; *puer* Schrank, *amyntas* D. & S., & *Cupididi* are placed on *Official Indexes*. [P. B.]

International Commission on Zoological Nomenclature, "Opinion 506. Grant under the Plenary Powers of precedence to the specific name *jurtina* Linnaeus, 1758, as published in the combination *Papilio jurtina*, over the name *janira* (a name published in the same work and on the same date) and suppression under the same Powers of the family-group name *Epinephelidi* Tutt, 1896 (Class Insecta, Order Lepidoptera)." *Opin. Decl. intern. Comm.*, vol. 18: pp. 177-196. 1958. Also placed on *Official Lists*: *Maniola* Schrank (type *lemur*=*jurtina*), *Erebia* (type *ligea*), *fortunata* Alphéraky, *ligea* L., *Maniolidi* Verity, *Erebinae*. Placed on *Official Indexes*: *Epigaea* Hbn., *lemur* Schrank, *Maniolidi* Reuter, *Epinephelidi*. [P. B.]

International Commission on Zoological Nomenclature, "Opinion 516. Determination under the Plenary Powers of the relative precedence to be assigned to certain works on the Order Lepidoptera (Class Insecta) published in 1775 by Pieter Cramer, Michael Denis & Ignaz Schiffermüller, Johann Christian Fabricius, Johann Casper Fuessley, and S. A. von Rottemburg respectively." *Opin. Decl. intern. Comm.*, vol. 19: pp. 1-44. 1958. Order of priority assigned is: Fabricius, von Rottemburg, Fuessley, Denis & Schiffermüller, Cramer. Dates of publication of work by Cramer, and its continuation by Stoll, are determined. [P. B.]

Jarvis, F. V. L., "Etude biologique comparée de *Colias australis* (Verity) et de *Colias hyale* (L.)" [in French; English summary]. *Lambrillinea*, vol. 55: pp. 27-34, 37-50, 3 pls. 1955. Careful comparison of all stages & instars of these 2 spp., based on offspring of ♀ ♀ from the same locality, reared under identical conditions except for foodplant. New discoveries are a species difference in certain scales, and the presence of functional androconia in both. [P. B.]

Jefferson, T. W., "The Brown Argus butterfly, *Aricia agestis* Schiff., in Great Britain." *Ent. Rec. & Journ. Var.*, vol. 70: pp. 117-122, 1 pl. 1958. Review of taxonomic history and theories of origin of British races. [P. B.]

Kiriaoff, S. G., "Une thyridéid nouvelle de la Côte d'Ivoire" [in French]. *Rev. franç. Ent.*, vol. 19: pp. 173-175. 1952. Describes as new *PARAPISIA* (subgenus of *Apisia*), & type *A. (P.) bourgognei* (Bingerville, Ivory Coast.) [P. B.]

Kirkwood, Carl W., "The status of two geometrid names." *Bull. southern Calif. Acad. Sci.*, vol. 56: pp. 167-168, 2 figs. 1957 [1958]. *Stenoporpia grisearia* (=*Glena pexata*). Figures type & ♂ genitalia of former. [P. B.]

Knabens, Nils, "Meddelelse om funn av *Rhyacia dahlii* Hb. i Norge (Lepid. Noct.)" [in Norwegian]. *Norsk ent. Tidsskr.*, vol. 8: pp. 124-125, 6 figs. 1950. Comparison of this sp. with *R. mendica* & *R. rubi* in habitus and ♂ genitalia; list of Norwegian records. [P. B.]

Knabens, Nils, "Notes on the Norwegian Lepidoptera (Noctuidæ, Geometridæ)." *Norsk ent. Tidsskr.*, vol. 8: pp. 203-206, 18 figs. 1951. Notes on identity of *Agrotis fatidica* (Norwegian specimen may be racially distinct) & *Polia furca colletti*. *Cosmia gilvago*, *Boarmia consonaria*, & *Cidaria otregiata* new for Norway. [P. B.]

de Lesse, H., "Contribution à l'étude du genre *Erebia* (3e note). Répartition dans les Pyrénées de *E. tyndarus* Esper et *E. cassiooides* Reiner et Hohenwarth" [in French]. *Vie et Milieu*, vol. 2: pp. 95-123, 2 pls., 3 maps. 1951. Reviews history of spp., discusses their relationships, and distinguishes them; describes general distribution; redefines French races, figuring ♂ genitalia; describes & discusses distribution in Pyrenees; speculates on nature of interspecific barriers. [P. B.]

de Lesse, H., "Contribution à l'étude du genre *Erebia* (4e note). Répartition de *E. pandrose* (Borkh.) et sa sous-espèce *sthenno* Grasli, dans les Pyrénées" [in French]. *Vie et Milieu*, vol. 1: pp. 267-277, 45 figs. 1951. Redescribes ssp., figuring ♀ genitalia, and describes general & local distribution. [P. B.]

- de Lesse, H., "Une nouvelle espèce d'*Erebia* pour la faune suisse" [in French]. *Lambillionea*, vol. 57: pp. 6-10, 2 figs. 1957. Description of new subspecies *E. nivalis warreniana* (Grindelwald, Switzerland) and note on the presence of *E. nivalis* in this country. [P. B.]
- de Lesse, H., "Description de deux nouvelles espèces d'*Agrodiætus* (Lep. Lycaenidae) séparées à la suite de la découverte de leurs formules chromosomiques" [in French]. *Lambillionea*, vol. 57: pp. 65-71, 4 figs. "1957" [1958]. Description of 2 new spp. in the genus *Agrodiætus* after the study of the number of chromosomes in some spp. of this genus. *A. aratensis* (E. Turkey, Hama Dagh, W. of Ararat, 2,500 m.) ( $n=13$ ) and *A. vanensis* (E. Turkey, Dogubayazit, 2,100 m.) ( $n=78$ ). [P. V.]
- Lorković, Zdravko, "Die Populationsanalyse zweier neuer stenochoren *Erebia*-Rassen aus Kroatien" [in German; English & Serbo-Croatian summaries]. *Biol. Glasnik*, Zagreb, vol. 8: pp. 53-76, 3 pls. 1955. Describes as new *E. stirius kleki* (Mt. Klek, 1100 m., W. Croatia); *E. gorge vagana* (Vaganski Vrh, 1650 m., Velebit Mts.). Describes distribution of spp.; discusses variation and distinctness of new spp. Concludes from the habitats of the new races (both confined to small areas at high altitude) that postglacial climates can hardly have been warmer than at present, or these races could not have survived. [P. B.]
- Lorković, Zdravko, "Semispecies a necessary new taxonomic category" [in Serbo-Croatian; English summary]. *Biol. Glasnik*, Zagreb, vol. 7: pp. 236-237. 1955. Gives examples (*Pieris napi* & *P. bryoniae*; *Colias philodice* & *C. eurytheme*; *Erebia calcarius* & *E. illyromacedonica*) of species pairs in which reproductive isolation is incomplete or locally variable; treats these as semispecies of the same species. [P. B.]
- Lorković, Zdravko, "Die Speziationstufe in der *Erebia tyndarus* Gruppe. I. Die morphologischen, ökologischen und chorologischen Merkmale der alpinen Formen *cassiooides*, *nivalis*, *tyndarus* und *calcarius*" [in German, Serbo-Croatian summary]. *Biol. Glasnik*, Zagreb, vol. 10: pp. 61-110, 6 pls., 8 figs. 1957. Compares and distinguishes these spp. on morphological and cytological grounds and assigns named races to the proper spp. Early stages are not distinguishable. Describes as new *E. cassiooides occimurina* (Gavarnie, 1400 m.), *E. c. occicarmenta* (Ariège, Siguer, 1800 m.); these are junior synonyms of *pseudomurina* & *pseudocarmenta* de Lesse, 1956, respectively. Discusses variability of characters; no single character, including ♂ genitalia, will allow certain separation of spp. Describes altitudinal, ecological, & geographic distribution. Species do not intergrade where they come in contact. Maintains that *cassiooides* applies to brighter, low-altitude form with more pointed wings occurring at type locality; other sp., with a higher altitudinal preference, is *nivalis*. [P. B.]
- Lucas, D., "Races nouvelles de zygènes du sud-ouest et du sud de la France" [in French]. *Bull. mens. Soc. linn. Lyon.*, vol. 27: pp. 67-68. 1958. Description of *Zygena filipendulae breillati* n. ssp. from western Pyrenees (near Bayonne) and *Z. trifolii dumetzi* n. ssp. from Hérault area. [P. V.]
- Maeki, Kodo, "A use of chromosome numbers in the study of taxonomy of the Lepidoptera and notes on the internal reproductive anatomy." *Lepid. News*, vol. 11: pp. 8-9. 1958.
- Marion, H., "Pyrales nouvelles d'Afrique tropicale" [in French]. *Bull. Inst. franç. Afrique noire (A)*, vol. 19: pp. 1197-1215, 14 figs., 1 pl. 1957. Description of new species of pyralids of tropical Africa: (Phycitidae, Phycitinae) *Syria fuscosparsella* (Dakar); *VILLIERSOIDES*, and type *V. rosalbella* (Dakar). *V. rosealella* (Dakar); *Prorophora grisealella* (Dakar); *Pectinigeria* (?) *purpurella* (Togo: Aledjo); *Heosphora atakorella* (Dahomey: Atakora Mts.); *Baroda pulverella* (Dakar) (Phycitidae, Anerastiinae); *Surattha albipunctella* (Dakar); *Mesolia monodella* (Dahomey: Atakora Mts.); *Culladia sordidella* (id.); *Charltonia villiersi* (id.) (Crambidae); *Saccada (Danaka) giovanetta* (Ivory Coast: Adiopodoumé) (Pyralidae); *Anarpia leucealis* (Dahomey: Atakora Mts.) (Pyraustidae, Scopariinae); *Noorda villiersi* (Dahomey: Atakora Mts.) (Pyraustidae, Evergestinae). The depository of the holotypes is not indicated in the paper; they are in the Paris Museum. [P. V.]
- Marion, H., "Classification et nomenclature des Pyraustidae d'Europe" [in French]. *Entomologiste*, vol. 13: pp. 75-87. "1957" [1958]. Very important and valuable paper on a new classification, after the study of the ♂ genitalia, of the European Pyraustidae. [P. V.]
- Martin, Edward L., "Notes on some new rice stem borers (Lepidoptera: Pyralidae), with the description of a new species of *Chilo* Zincken." *Bull. ent. Res.*, vol. 49:

- pp. 187-191, 1 pl., 8 figs. 1958. Describes as new *C. phaeosema* (Makaholi, S. Rhodesia). Notes on *Maliarpha separatella*, *Schænobius incertulas*, & *Scirpophaga chrysorrhoa*, with some new synonymy; figs. of genitalia of all. [P. B.]
- Mattoni, R. H. T., "The significance of the genitalia to taxonomic studies of the Lepidoptera." *Lepid. News*, vol. 11: pp. 5-7. 1958.
- Meier, Herbert, "Ein neues Subgenus und neue Arten aus der Gattung *Solenobia* Dup." (*Lep. Psych.*) [in German]. *Nachrichtenbl. bayer. Ent.*, vol. 6: pp. 55-61. 1957. Describes as new subgenus *SIEDERIA* (type *alpicolella*); *S. (Solenobia) charlottæ* (Mitterbach bei Knittelfeld, Obersteiermark), *S. (Solenobia) friulana* (Interneppo, Friaul, N. Italy); *S. (Brevantennia) styriaca* (Häuslberg bei Leoben, Obersteiermark). [P. B.]
- Meier, Herbert, "Zgæna cynaræ ssp. *tolmezzana*, n. ssp." [in German]. *Nachrichtenbl. bayer. Ent.*, vol. 6: pp. 84-87. 1957. Type locality: vicinity of Tolmezzo, Italy. Notes on other spp. [P. B.]
- Moeck, Arthur H., *Geographic variability in Speyeria. Commenis, records and description of a new subspecies*. 48 pp., 2 pls., 7 maps. Milwaukee Entomological Society. 1957. Describes as new *S. zerene gloriosa* (Illinois River Valley, 1100-1600 ft., Josephine Co., Oregon); type series ranges from typical *bremnerii* to typical *zerene*. Extended discussion of geographic and individual variation in 10 spp. of *Speyeria* in North America. [P. B.]
- Moucha, Josef, "Über *Papilio machaon* L. im Nahen Osten" [in German]. *Acta ent. Mus. nat. Pragæ*, vol. 31: pp. 167-170. 1957. The ssp. of eastern Mediterranean is ssp. *syriacus*. The name *palaestinensis* Eller is a nomen nudum. [J. M.]
- Moucha, Josef, & Dalibor Povolný, "Zur kritischen Revision der Gattung *Narraga* Wkr. (Lep. Geometridæ)" [in German; Czech summary]. *Acta Soc. ent. Cechoslov.*, vol. 54: pp. 217-234. 7 pls. 1957. As new are described *NARRAGULA* n. subgen., *Narraga tessularia kasyi* (Austria, Hungary), *N. fasciolaria danubialis* (Moravia, Hungary, and Yougoslavia), & *N. f. turkestanica* (Turkestan). All types are figured (imagines & genitalia). [J. M.]
- Munroe, Eugene, "Geshna primordialis Dyar, with description of two new genera and two new subspecies (Lepidoptera: Pyralidæ)." *Canad. Ent.*, vol. 88: pp. 126-128, 8 figs. 1956. Describes as new *ANAGESHNA* (type *primordialis*); *A. p. vividior* (Mer Bleue, near Ottawa, Ontario), *A. p. pallidior* (South Milford, Nova Scotia); *APOGESHNA* (type *Isopteryx stenialis*). [P. B.]
- Munroe, Eugene, "Restriction and revision of the genus *Diastictis* Hübner (Lepidoptera: Pyralidæ)." *Canad. Ent.*, vol. 88: pp. 208-228, 44 figs. 1956. Describes as new *D. pseudargyralis* (Stemper, Florida), *D. ventralis seamansi* (Lethbridge, Alberta), *D. holguinalis* (Holguin, Cuba), *D. albovittalis* (Puebla, Mexico), *D. viridescens* (Palmerlee, Arizona), *D. robustior* (Dewey L., Cherry Co., Nebraska), *D. sperryorum* (Sayre, Oklahoma). Redescribes the 4 spp. previously known. Key to spp. [P. B.]
- Munroe, E. G., "The genus *Orenaia* in North America, with the description of a new species (Lepidoptera: Pyralidæ)." *Canad. Ent.*, vol. 88: pp. 74-78, 6 figs. 1956. Describes as new *O. pallidivittalis* (Mt. Stephen, British Columbia, 7000 ft.). Sinks *Titanio subargentalis* to *O. trivialis*. [P. B.]
- Munroe, Eugene, "The North American species of *Diathrausta* Lederer (Lepidoptera: Pyralidæ)." *Canad. Ent.*, vol. 88: pp. 579-583, 7 figs. 1956. Describes as new *D. harlequinialis amaura* (Norway Bay, Quebec), *D. h. lauta* (Lake Placid, Florida). Descriptive notes on the 2 other spp. and on *D. reconditalis*. [P. B.]
- Munroe, Eugene, "Far-eastern Pyralidæ (Lepidoptera)." *Canad. Ent.*, vol. 90: pp. 249-254, 9 figs. 1958. Describes as new *SINOMPHISA* (type *Pionea* (?) *plagalis*); *PROTEUCLASTA* (type *Pyrausta* (?) *stötzneri*); *PYRA'DENA* (type *Adena mirifica*); *Dioryctria magnifica* (Tapaishan in Tsinling, S. Shensi, China). First of a series on duplicate material from the Höne collection, supplementing Caradjia's work on this collection. [P. B.]
- Munroe, Eugene, "Pycnarmon jaguaralis (Guenée) and an allied species (Lepidoptera: Pyralidæ)." *Canad. Ent.*, vol. 90: pp. 234-235, 5 figs. 1958. Describes as new *P. j. papualis* (Nomnagihe, Geelvink Bay, Dutch New Guinea), *P. decipiens* (Calumbogan, Mindanao, Philippines). [P. B.]
- Munroe, Eugene, "A revision of the genus *Epicorsia* Hübner (Lepidoptera: Pyralidæ)." *Canad. Ent.*, vol. 90: pp. 293-301, 10 figs. 1958. Describes as new *E. parambalis* (Paramba, Ecuador, 3500 ft.), *E. lucialis* (St. Lucia), *E. l. baezalis* (Baeza, E. Ecuador), *E. chiapalis* (La Granja, Chiapas, Mexico), *E. catarinalis* (Rio Vermelho, Sta. Catharina, Brazil). Transfers *cerata* from *Pyrausta* or *Botys*. Descriptive notes on 3 other spp. Discusses distribution. [P. B.]

Munroe, Eugene, "Some species of *Polygrammodes* Guenée (Lepidoptera: Pyralidæ)." *Canad. Ent.*, vol. 90: pp. 257-274, 34 figs. 1958. Describes as new *P. eaclealis* (Rio Vermelho, Sta. Catharina, Brazil); *P. pareaclealis* (Prov. del Sara, Bolivia), *P. obsoletalis* (Boracea, Salesopolis, S. P., Brazil), *P. flaviivenata* (El Limbo, Prov. Chapare, Dep. Cochabamba, Bolivia, 2000 m.), *P. obscuridiscalis* (Hyatanahan, Rio Purus, Brazil), *P. harlequinialis* (Santander del Sur, Alto Rio Opon, Colombia, 900-1050 m.), *P. fenestrata* (Mexico, Est. Vera Cruz), *P. hyalomaculata septentrionalis* (Alto Rio Opon, Santander del Sur, Colombia, 900-1050 m.), *P. hartigi* ("Finca "La Violeta", Soconuso, Chiapas, Mexico, 850 m.), *P. griseinotata* (Colombia), *P. klagesi* (Hyatanahan, Rio Purus, Brazil), *P. koepckeae* (Heda. Taulis, Peru, 6°50' S., 79°10' W.), *P. lichyi* (Massif da Naiguata, D. F., Venezuela, 720 m.), *P. spectabilis* (Prov. del Sara, Bolivia, 450 m.). *P. oxydalis* is a southerm ssp. of *P. flavidalis*. Sinks *P. basaralis* to *P. semirufa*. Note on *P. arpialis* and *P. runicalis*. [P. B.]

Obraztsov, Nikolaus, "Die Gattungen der Palaearktischen Tortricidae. I. Allgemeine Aufteilung der Familie und die Unterfamilien Tortricinae und Sparganothinae" [in German]. *Tijdschr. Ent.*, vol. 97: pp. 141-231; vol. 98: pp. 147-228; vol. 99: pp. 107-154; vol. 100: pp. 309-347; 366 figs. 1954-1957. Redefines family, subfamilies Tortricinae & Sparganothinae, and their tribes and palearctic genera. Tortricinae include the tribes Ceracini, Zacobriscini (no palearctic representative), Archipsini, Cnephasiini, & Tortricini; the Sparganothinae include, in this region, only *Sparganothis*. Gives keys to subfamilies, tribes, and genera. Proposes the following new genera (types in parentheses): Archipsini, *PARAPANDEMIS* (*Lozotenia chondrillana*); *CORNICACÆCIA* (*Tortrix lafauryana*); *CACÆCIMORPHA* (*Archips pronubana*); *PARASYNDEMIS* (*Tortrix histriionana*); *PTYCHOLOMOIDES* (*Coccyx ariferana*); *PSEUDAMELIA*, as subgenus of *Clepsis* (*Tortrix unicolorana*); *LOZOTÆNIODES* (*Tortrix cupressana*); *PSEUDEULIA* (*Archips asinana*); *PARACLEPSIS* (*Phalaena cinctana*); *PHILEDONIDES* (*Phalaena Tortrix prodromana*); *PSEUDARGYOTOZA* (*Pyralis conwagana*); Cnephasiini, *SYNOCHONEURA* (*Eulia ochriflavis*); *PROPIROMORPHA* (*Penthina rhodophana*). Gives a catalogue of the palearctic spp. of these subfamilies. Proposes *christophi* n. n. for *verbascana* Christoph (*Aphelia*); *staintoni* n. n. for *reticulata* Stainton (*Clepsis*); *heinemanni* n. n. for *monochromana* Heinemann (*Cnephasia*); *kenneli* n. n. for *obsoletana* Kennel (*Cnephasia*), *filiipjevi* n.n. for *grisea* Filipejiev (*Acleris*); emends *helenica* Obraztsov to *hellenica*. Describes as new *Aphelia* (*Zelotherses*) *paleana chrétienii* (Hautes Alpes). Also names several "forms". New names and entities, except genera, are proposed in an extended commentary on the catalogue. [P. B.]

Oiticica Filho, José, "Dirphia dalcryra, nova especie (Lepidoptera, Hemileucidae)" [in Portuguese]. *Rev. bras. Biol.*, vol. 13: pp. 381-388, 11 figs. 1953. Type locality: Serra Bocaina, Fazenda Lageado, São Paulo. [P. B.]

Oiticica Filho, José, "Nota sobre a fêmea de *Bathyphlebia eminens* (Dognin, 1891) (Lepidoptera, Citheroniinæ)" [in Portuguese]. *Rev. bras. Biol.*, vol. 13: pp. 271-274, 4 figs. 1953. Redescribes allotype. [P. B.]

Oiticica Filho, José, "Tipos de Saturnioidea no United States National Museum. 5—Gênero *Arsenura* Duncan, 1841. (Lepidoptera, Arsenurinae)" [in Portuguese]. *Arg. Mus. nac.*, Rio de Janeiro, vol. 43: pp. 9-57, 20 pls. 1957. Original descriptions of 6 spp. reproduced; types figured, including genitalia. [P. B.]

Oiticica Filho, José, "Tipos de Saturnioidea no United States National Museum. 6—Gênero *Titaea* Hübner, [1823]. (Lepidoptera, Arsenurinae)" [in Portuguese]. *Arg. Mus. nac.*, Rio de Janeiro, vol. 43: pp. 189-223, 14 pls. 1957. Original descriptions of 4 spp., reproduced; types figured, including genitalia. Follows Michener in removing these spp., with *T. orsinome*, type of *Titaea*, from *Dysdæmonia*. [P. B.]

Oiticica Filho, José, "Ithomisa umbrata, espécie nova (Lepidoptera, Hemileucidae)" [in Portuguese]. *Bol. Mus. nac.*, Rio de Janeiro, *Zool.*, no. 174: 17 pp., 5 pls. 1958. Type locality: Morro Assú, 2000 m., Serra dos Orgãos, Brazil. Notes on related genera and spp. [P. B.]

Oiticica Filho, José, "Tipos de Saturnioidea no United States National Museum. 10—Gênero *Grammopelta* Rothschild, 1907 (Lepidoptera, Arsenurinae)" [in Portuguese]. *Bol. Mus. nac.*, Rio de Janeiro, *Zool.*, no. 176: 13 pp., 4 pls. 1958. Taxonomic history and figures of type of *G. lineata*. [P. B.]

Oiticica Filho, José, "Tipos de Saturnioidea no United States National Museum. 7—Gênero *Copiopteryx* Duncan, 1841 (Lepidoptera, Arsenurinae)" [in Portuguese]. *Bol. Mus. nac.*, Rio de Janeiro, n. s., *Zool.*, no. 154: 15 pp., 5 pls. 1957. Figures of holotype and genitalia and summary of taxonomic history for *C. phippsi*. [P. B.]

- Oiticica Filho, José, "Tipos de Saturnioidea no United States National Museum. 8—Gênero *Loxolomia* Maasen, 1869 (Lepidoptera, Arsenurinæ)" [in Portuguese]. *Bol. Mus. nac.*, Rio de Janeiro, n.s., *Zool.*, no. 156; 15 pp., 5 pls. 1957. Data for *L. johnsoni*. [P. B.]
- Oiticica Filho, José, "Tipos de Saturnioidea no United States National Museum. 9—Gênero *Schausiella* Bouvier, 1930 (Lepidoptera, Adelociephalidae [sic!])" [in Portuguese]. *Bol. Mus. nac.*, Rio de Janeiro, n. s., *Zool.*, no. 161: 41 pp., 31 figs. 1957. Data for 5 spp. [P. B.]
- Okagaki, Hiromu, "The situation of the genus *Leptosia* Hübner in the supergeneric classification (Pieridæ)." *Ent. Rev. Japan.*, vol. 6: pp. 7-8, 1 fig. 1952. Transfers this genus from Pierini to Euchloini, as a result of examination of the ♂ genitalia. [T. I.]
- Okano, Masao, "A new species of *Saronaga* from Japan (Thyatiridæ)." *Ann. Rep. Gakugei Faculty, Iwate Univ.*, vol 4, pt. 2: pp. 29-30, 2 figs. 1952. Describes as new *S. japonica* (Morioka, Iwate Pref.). [T. I.]
- Okano, Masao, "Une nouvelle sous-espèce de *Coreana raphaelis* Oberthür de Japon (Lycaenidæ)" [in French; Japanese notes]. *Bull. Tohoku ent. Soc.*, vol. 2: pp. 47-48, 1 pl. 1953. Describes as new *C. r. yamamotoi* (Rikuchu, Honshu). Foodplant: *Fraxinus japonica*. [T. I.]
- Opheim, Magne, "Macro-lepidoptera from central Norway." *Norsk ent. Tidsskr.*, vol. 8: pp. 91-123, 9 figs. 1950. Discusses at length the pattern variation & variation in genitalia of "Hesperia" [i.e. *Pyrgus*] *centaurea*, and concludes that *freija* is merely a northern ssp. Annotated list of some 215 spp. (19 families of "macros"), and discussion of distribution of some spp. [P. B.]
- Opheim, Magne "Notes on the genus *Pyrgus* Hb. (Lep., Gryp.)." *Astarte*, no. 4: 13 pp., 6 figs. 1953. Notes on classification and genitalia of European spp., especially the 4 which occur in Scandinavia. Catalogue of *Pyrgus* spp. in Tromsø Museum. [P. B.]
- Pearson, Henry Richard, "Uma nova especie de *Dirphiopsis* Bouvier (Lepidoptera, Saturnidae [sic!], Hemileucinae)" [in Portuguese; English summary]. *Rev. bras. Biol.*, vol. 18: pp. 7-15, 32 figs. 1958. Describes as new *D. wanderbilti* (Lago Azul, 800 m., Parque Nacional do Itatiaia, Brazil). [P. B.]
- Petersen, Günther, "Kritische Bemerkungen über die Gattung *Cilicorneola* Zag. 1956 (Lepidoptera: Tineidae)" [in German; English & Russian summaries]. *Beitr. Ent.*, vol. 7: pp. 596-598. 1957. Sinks *Cilicorneola* to *Fermocelina* because type of former, stated to be *Tinea severella*, is, from Zagulajev's description, *F. inquinatella* (type of *Fermocelina*). Sinks *C. balchanella* to *F. panormitanella*. [P. B.]
- Petersen, Günther, "Zur systematischen Stellung zweier von L. Osthelder beschriebener Microlepidopteren. (Lepidoptera: Acrolepiidae, Psychidae)" [in German]. *Nachrichtenbl. bayer. Ent.*, vol. 6: pp. 62-63. 1957. Sinks *Melasina aequalis* to *M. lugubris*; *Tinea submontana* to *Acrolepia pygmaea*. [P. B.]
- Povolný, Dalibor, & Josef Moucha, "Kritische Bemerkungen zu einigen Geometridengattungen" [in German]. *Acta ent. Mus. nat. Pragæ*, vol. 31: pp. 125-143, 59 figs. 1957. These genera are discussed: *Fidonia*, *Athroolopha*, *Isturgia*, and *Bichroma*; subgenus *PSEUDOISTURGIA* (type *I. carbonaria*) is described as new. The genitalia and adults are figured. [J. M.]
- Razowski, Józef, "Two new palearctic species of the genus *Cnephasia* Curt. (Lepidoptera, Tortricidae)" [in English; Polish & Russian summaries]. *Acta zool. cracov.*, vol. 1: pp. 21-29, 3 pls. 1956. Describes as new *C. syriella* (Syria), *C. tolli* (Haifa, Palestine). [P. B.]
- Razowski, Józef, "Cnephasiinae of Poland (Lepidoptera, Tortricidae)" [in English; Polish & Russian summaries]. *Acta zool. cracov.*, vol. 1: pp. 117-159, 13 pls. 1957. Figures of adults & genitalia of type spp. of *Trachysmia*, *Doloploca*, *Exapate*, & *Tortricodes*, and of 17 spp. of *Cnephasia* including type spp. of 6 subgenera. Taxonomic notes on these categories. [P. B.]
- Razowski, Józef, "Polish species of the subfamily Tortricinae (Lep. Tortricidae)" [in Polish; English summary]. *Bull. ent. Pologne*, vol. 26: pp. 135-154, 5 pls. 1957. Discusses 34 spp. of the genera *Tortrix*, *Chrosis*, and *Acleris*. The ♂ and ♀ genitalia are figured. [J. M.]
- do Rego Barros, Alfredo Rei, "Fauna do Distrito Federal. XXXIII: Sobre o gênero *Ammalo* Walker, 1855 (Lepidoptera, Heterocera)" [in Portuguese]. *Rev. bras. Biol.*, vol. 15: pp. 223-237, 27 figs. 1955. Redescribes genus, & type *A. helops*. [P. B.]
- do Rego-Barros, Alfredo Rei, "Novo gênero e nova espécie de Arctiidæ de Itatiaia, Estado do Rio de Janeiro, Brazil (Lepidoptera—Heterocera)" [in Portuguese;

- English summary]. *Bol. Mus. nac.*, Rio de Janeiro, *Zool.*, no. 177: 6 pp., 9 figs. 1958. Describes as new *WANDERBILIA* (monobasic), *W. wanderbilti* (Aguilhas Ne-gras, Itatiaia). [P. B.]
- Reisser, Hans, "Beiträge zur Kenntnis der Sternrhinae (Lep. Geom.) III. Über *Prob-lepsis ocellata* Friy. und ihre ersten Stände" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 42: pp. 161-172. 1957. Reviews taxonomic history of species (type of genus). Describes early stages; reared on olive and *Ligustrum*. [P. B.]
- Rindge, Frederick H., "The genus *Oxydia* in the United States (Lepidoptera, Geometridæ)." *Amer. Mus. Novit.*, no. 1849: 18 pp., 12 figs. 1957. Redefines genus, which includes North American spp. usually placed in *Micrognathia*. Redescribes *O. vesulia transparens* & *O. cubana*, which occur in Florida; notes on *O. guenéei*, *O. nimbata*, *O. mundata*, & *O. masthala*; United States records of these 4 spp. are dubious. [P. B.]
- Rougeot, P. C., "Première capture de la femelle *Nudaurelia bouvieri* Le Moult (At-tacidae)" [in French]. *Rev. franç. Lépid.*, vol. 16: pp. 39-40. "1957" [1958]. First capture and description of the ♀ of this saturniid in Gaboon. [P. V.]
- Sabrosky, Curtis W., "On the question of a lectotype for *Megathymus aryxna* Dyar." *Lepid. News*, vol. 11: pp. 29-34. 1958.
- Sailor, Reece I., "Proposed additions to the list of common names of insects and other invertebrates approved by the Entomological Society of America." *Bull. ent. Soc. Amer.*, vol. 3: pp. 3-4. 1957. Includes 15 Lepidoptera. [P. B.]
- Saitoh, Kazuo, et al., "Some investigations on a lycaenid butterfly *Wagimo signata* Butler" [in Japanese; English summary]. *Chūhō*, no. 7: pp. 1-32, 7 pls. 1952. Distribution, variation of wing-markings, life-history, chromosomes, & ♂ genitalia are discussed. [T. I.]
- Saitoh, Kazuo, & Hironao Yamauchi, "Some investigations on a lycaenid butterfly, *Wagimo signata* Butler, (2) Supplementary notes" [in Japanese; English summary]. *New Entomologist*, vol. 3: pp. 15-17, 1 fig. 1953.
- Sanders, D. F., "Miscellaneous notes on Indian butterflies." *Journ. Bombay nat. Hist. Soc.*, vol. 52: pp. 803-830. 1955. *Mycalesis suavolens tytleri* & *Heliochorus brahma mogokae* stated to be new here, but not described. Notes on many spp., principally on distribution but with some remarks on biology & habits, & some descriptions. [P. B.]
- Schütze, Eduard, "Über *Eupithecia breviculata* Donz. und *extremata* F. insbesondere in Deutschland. Eupitheciens-Studien IX. (Lep. Geom.)" [in German]. *Nachrichtenbl. bayer. Ent.*, vol. 6: pp. 65-69, 4 figs. 1957. Figures ♂ & ♀ genitalia; notes on biology & distribution. [P. B.]
- Shirai, Tadaharu, "Illustrated moths in the Kansai district of Japan (1)" [in Japanese]. *Trans. lep. Soc. Japan*, vol. 3: pp. 25-28, 5 figs. 1953. *Ephesia rutha*, *E. connexa*, & *E. nubila* illustrated & described. [P. B.]
- Shirozu, Takashi, "New or little known butterflies from the northeastern Asia, with some synonymous notes. I." *Sieboldia*, vol. 1: pp. 11-37, 11 pls., 3 figs. 1952. Describes as new: *Polytremis pellucida asahinai* (Formosa); *Pelopidas assamensis reducta* (Formosa) (Hesperiidæ); *Pieris napi japonica* (Japan) (Pieridæ); *Neozephyrus taxila monticola* (Japan) (Lycaenidæ); *Dodona eugens esakii* (Formosa) (Riodinidæ); *Neptis ikedai* (Formosa), *N. cœnobia aino* (Japan); *Araschnia levana sachalinensis* (Sachalien); *Dichorragia nesimachus ishigakianus* (Loochoos) (Nymphalidæ); *Oeneis asamana sugitanii* (Japan) (Satyridæ). All figured in half-tone photos. [T. I.]
- Shirozu, Takashi, "New or little known butterflies from the north-eastern Asia, with some synonymous notes. II." *Sieboldia*, vol. 1: pp. 149-159, 1 pl., 1 fig. 1953. Describes as new: *Eurema esakii* (Formosa) (Pieridæ); *Maculinea euphemus matsu-murai* n. n. pro *jezoensis* Matsumura (Hokkaido); *Jamides bochus ishigakianus* (Ishigaki Is., Loochoos); *Nacaduba kurava septentrionalis* (S. Japan); & *Lycaedes argyrognomon shirahatai* (Yamagata Pref., N. Japan) (Lycaenidæ). [T. I.]
- Sieder, Leo, "Fünfte Vorarbeit über die Gattung *Solenobia* (Lep., Psychidæ-Talæporinae). I. *Sol. Brevant. saxatilis* war ein Irrtum. II. Spec. nov. *Sol. Brevant-tennia santicensis*" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 42: pp. 106-109, correction p. 180. 1957. Describes as new *S. (B.) santicensis* (Gailtal, Kärnten). *S. saxatilis* was based on ♀ of this sp. and ♂ of *S. alpicolella*, and is synonym of latter. [P. B.]
- van Someren, V. G. L., & T. H. E. Jackson, "The *Charaxes ethoecles-ethalion* complex (Lepidoptera: Nymphalidæ). Supplement No. 1." *Ann. Transvaal Mus.*, vol. 23: pp. 41-58, 2 pls., 1 map. 1957. Describes as new *C. ethalion alpinus* (Vumba Mts., S. Rhodesia), *C. viola diversiforma* (Katanga, Belgian Congo), *C. aubyni australis*

- (Nyamkowa Mt., N. Nyasaland), *C. a. ecketti* (Ngong, Kenya), *C. marieps* (Mariepskop, Transvaal), *C. karkloof* (Karkloof, Natal), *C. berkeleyi* (Ngong, Kenya); also numerous "forms" of these and other spp. Describes rearing technique; rearing from known ♀ ♀ important in this confusing group. [P. B.]
- van Son, G., "Descriptions of new Rhodesian *Mycalesis* (Lepidoptera-Satyridae)." *Ann. Transvaal Mus.*, vol. 22: pp. 33-35, 1 pl., 3 figs. 1952. Describes as new *M. (Monotrichitis) cottrelli* (Ipongo, N. Rhodesia), *M. c. harti* (Sinoia, S. Rhodesia). [P. B.]
- van Son, G., "A revision of the subspecies and forms of *Charaxes citharon* Felder and *Charaxes xiphares* (Cramer)." *Ann. Transvaal Mus.*, vol. 22: pp. 219-230, 4 pls., 1 fig. 1953. Describes as new *C. c. nairobicus* (Nairobi, Kenya), *C. x. penningtoni* (Champagne Castle, Natal), *C. x. burgessi* (Ruhiza Forest, Kigezi, Uganda); also several "forms". Redescribes named sspp. & "forms" & figures all but one. [P. B.]
- van Son, G., *The butterflies of Southern Africa. Part. II. Nymphalidae: Danainae and Satyrinae.* ix + 166 pp., 37 col. pls., 220 figs. Pretoria: Transvaal Museum (Memoir no. 8). 1955. Describes as new (Satyrinæ): *PARALETHE* (type *Satyrus dendrophilus*), *P. dendrophilus albina* (Port St. Johns, Pondoland); *DINGANA* (type *Leptoneura dingana*), *D. bowkeri clarki* (Somerset East, Cape Prov.), *D. b. bella* (Richmond, Cape Prov.); *MINTHA* (type *Dira mintha*); *CASSUS* (type *Papilio cassus*); *Pseudonympha magoides* (Kastrol Nek, Wakkerstroom District, Transvaal), *P. variii* (Greytown, Natal), *P. swanepoeli* (Woodbush Village, Pietersburg District, Transvaal), *P. cyclops* (Butler North, Umtali District, S. Rhodesia); *CASSIONYMPHA* (type *Satyrus cassius*); *NEITA* (type *Pseudonympha neita*); *STYGIONYMPHA* (type *Pseudonympha vigilans*), *S. wicografi* (Mountain Inn, Louis Trichardt, N. Transvaal); *Ypthima gazana* (Odzani, Umtali District, S. Rhodesia), *Y. cataracte* (Victoria Falls), *Y. antennata* (Munnik, N. Transvaal); *YPTHIMOMORPHA* (type *Ypthima itonia*); *MASHUNA* (type *Ypthima mashuna*); also some "forms". Proposes *hübneri* n. n. for *Melampias hyperbia* Hübner. All categories from subfamily to "form", inclusive, are thoroughly described and keyed. All spp. but one, all sspp., and most "forms" are figured, both surfaces of each specimen being shown. Text figures show genitalia and other structures. Known life histories are fully described; those of 30 spp. (of the 72 known from this area) are illustrated in color and in great detail, on 31 superb plates by Mr. G. C. Clark. This is one of the finest books on Lepidoptera which has appeared recently. [P. B.]
- van Son, G., "New South African butterflies." *Ann. Transvaal Mus.*, vol. 22: pp. 503-509, 2 pls., 4 figs. 1956. Describes as new *Papilio echeriooides chirindanus* (Mt. Selinda, S. Rhodesia); *Crudaria capensis* (Uniondale Road, Cape Prov.); *Lepidochrysops badhami* (6 mi. E. of Springbok, Little Namaqualand); also ♀ "forms" of *Papilio dardanus cenea* & *Colotis eunoma*. [P. B.]
- Stallings, Don B., & J. R. Turner, "A review of the Megathymidae of Mexico, with a synopsis of the classification of the family." *Lepid. News.*, vol. 11: pp. 113-137, 8 pls. 1958. Describes as new *M. remingtoni* (6000 ft., Highway 85, S. of Jacala, Hidalgo, Klm. 250), *M. estelleæ* (400 ft., 56 mi. SW of Reynosa), *M. beulahæ* (5700 ft., near Ixmiquilpan, Hidalgo), *M. juliae* (6300 ft., N. of Zarca, Durango, Highway 45, Klm. 1317), *M. hazelæ* (2300 ft., near Chilpancingo, Guerrero, Highway 95, Klm. 235), *M. yuccæ wilsonorum* (Victoria, Tamaulipas).
- Stempffer, H., "Contribution à l'étude des Lycénidæ de la faune éthiopienne" [in French]. *Bull. Inst. franç. Afrique noire (A)*, vol. 19: pp. 209-227. 1957. Notes on some spp. of African Lycénidæ and descriptions of new spp.: *Ornipholidotos bitjeensis* (Cameroon: Bitje Ja River), *O. terensis* (Uganda: SE Buddu); *Deudorix (Hypokopelates) nyanzana* (Uganda: Entebbe), *D. (Pilodeudoxis) diyllus orientalis* (Entebbe); *Anthene (Triclema) maessenii* (Togo: Kpandu); *Lepidochrysops nigeria* (Nigeria: Oshodi). [P. V.]
- Storace, Luciano, "Descrizione di una nuova forma di *Pentila peucetia* Hew. dell'Africa orientale" [in Italian]. *Ann. Mus. civ. Stor. nat.*, Genoa, vol. 63: pp. 77-78, 2 figs. 1947. Describes as new *P. p. orientalis* (Oltregiuba (Jubaland), Ola Vagèr). [P. B.]
- Storace, Luciano, "Descrizione di nuove forme di Pieridæ dell'Africa orientale" [in Italian]. *Ann. Mus. civ. Stor. nat.*, Genoa, vol. 63: pp. 263-265. 1948. Describes as new *Glycestha creona benadirensis* (Zona di Afgoi, Benadir, S. Somaliland); *Colotis phisadia somalica* (Dolo, Juba Valley, etc.). Also names "abs." of the latter & of *C. eris*, and a "form" of *G. gidica*. [P. B.]
- Storace, Luciano, "Spedizione zoologica del Marchese Severio Patrizi nel Basso Giuba e nell'Oltregiuba, VI-VIII-1934. Lepidotteri diurni" [in Italian]. *Ann. Mus. civ.*

- Stor. nat.*, Genoa, vol. 64: pp. 12-29. 1949. Describes as new *Colotis chrysonome patrizii*; *Terias hecabe continua*; *Charaxes etesipe pairizii*; *Acræa anemosa macrosticta* (all from Ola Vagèr); also names a "form" of *Colotis danae*. Annotated list of 56 spp. [P. B.]
- Storace, Luciano, "La sottospecies abissina di *Euchrysops mauensis* Bethune-Baker (Lepidoptera: Lycaenidae)" [in Italian]. *Doriana*, vol. 1, no. 7: 2 pp. 1950. Describes as new *E. m. abyssiniae* (Bahrdär, L. Tana.). [P. B.]
- Storace, Luciano, "Osservazioni su alcuni specie di Charaxidinae (Lepidoptera, Nymphalidae)" [in Italian]. *Doriana*, vol. 1, no. 2: 8 pp. 1950. Notes on identity, variation, & distribution of 2 spp. of *Euxanthe* & 12 spp. of *Charaxes*. [P. B.]
- Storace, Luciano, "Ropaloceri dell'Africa orientale. I-II (Lepidoptera, Diurna)" [in Italian]. *Doriana*, vol. 1, no. 38: 8 pp. 1953. Notes on spp. of *Belenois*, *Dixiea*, *Colotis*, *Hamanumida*, *Pseudacraea*, *Catacroptera*, & *Precis*. [P. B.]
- Storace, Luciano, "Su alcune Lycaenidae abissine del Museo di Genova (Lepidoptera)" [in Italian]. *Doriana*, vol. 1, no. 35: 4 pp. 1953. Records of 7 spp. from Abyssinia, with some descriptive notes; names a "form" of *Catachrysops nandensis*. [P. B.]
- Strympl, Alis, "Vinte e seis anos caçando *Agrias* na Amazônia" [in Portuguese]. *Bol. Mus. paraense Emílio Goeldi*, vol. 10: pp. 185-209. 1949. Translations of papers (1941 and earlier) by Le Moul & by Fassl describing new *Agrias* and a few other butterflies, mainly collected by Strympl. [P. B.]
- Takahashi, Mayumi, "On the life-history of *Apatura mikuni* Wileman (Nymphalidae), and its distribution in Shizuoka Pref." [in Japanese]. *New Entomologist*, vol. 1, no. 2: pp. 7-15, 6 figs., 1 map. 1951. Foodplants: *Salix* spp. Eggs of *mikuni* produced *ilia substituta* and vice versa. Same results were obtained by K. Hayashi in Tokyo (materials from Shizuoka), and A. Takahashi et al. in Nagoya, at the time independently. *Mikuni* should be sunk as a form of *substituta*. [T. I.]
- Tilden, J. W., "Taxonomic history and distribution of *Ochlodes yuma* (Hesperiidae)." *Lepid. News*, vol. 11: pp. 151-152. 1958.
- Tite, G. E., "New African Lycaenidae (Lep.)" *Entomologist*, vol. 91: pp. 115-118, 144, 10 figs. 1958. Describes as new *Phylaria heritsia intermedia* (Mabera Forest, Kyagwe, Mulange, Uganda, 4000 ft.); *Uranothauma cuneatum* (Bom M'singa, Nr. Magazine Hill, Escarpment, 5000 ft.). Reduces *P. virgo* and *P. chibinotana* to sspp. of *P. heritsia*. [P. B.]
- Toll, S., "Etude de quelques Coleophoridae d'Afrique du Nord et de leurs genitalia (Lep.)" [in French]. *Entomologiste*, vol. 12: pp. 97-109, 48 figs.; pp. 121-129, figs. 49-78; vol. 13: pp. 95-105, figs. 79-111. 1956-1958. Descriptions of new species of Coleophoridae from French North Africa: [1956] *Coleophora xanthochlora* (Tunisia: El Guern), *C. fuscinervella* (Tunisia: Nefta), *C. viettella* (Nefta) *C. amiculella* (Tunisia: Tozeur), *C. micronotella* (Tozeur), *C. fatmella* (Tunisia: Chabbia) *C. sabuletella* (Algeria: Sidi Maclouf), *C. juscostraminella* (Tunisia), *C. microeucera* (Tunisia: Metlaoui), *C. berlandella* (S. Algeria: Djebel d'Ougarta), *C. tozeurensis* (Tunisia: Tozeur). [1957] *C. haplopennella* (Tunisia: El Golea), *C. trizonella* (Tunisia: Metlaoi), *C. cygnipennella* (Tunisia), *C. atrilinnea* (Tunisia: Saadana), *C. kahaourella* (Tunisia: Zizara), *C. zizarella* (Zizara), *C. pauperculella* (Tunisia: Golea), *C. sarehma* (Tunisia). [1958] *C. nurmahal* (Tunisia: Tozeur), *C. icarella* (Tozeur) *C. areniphila* (Tunisia: Laghouat), *C. exasperatella* (Tunisia: Marlain), *C. hysricella* (Tunisia: Langhouat), *C. fuscopictella* (Tunisia), *C. alphitonella* (Tunisia: Tozeur), *C. vernalia* (Tunisia: Marlain), & *C. argentariella africana* (Tunisia: Tozeur). [P. V.]
- Toll, S., "Polish species of the genus *Hemimene* Hb. (Tortricidae)" [in Polish; English & Russian summaries]. *Bull. ent. Pologne*, vol. 24: pp. 5-70. 6 figs. 1956. Describes all 21 spp. living in Poland and gives their distribution. Imagines & genitalia are figured. [J. M.]
- Toll, S., "Studies on species of the family Coleophoridae II" [in Polish; English & Russian summaries]. *Bull. ent. Pologne*, vol. 24: pp. 139-145, 8 figs. 1956. *Coleophora hackmani* n. sp. from Poland. Gives this synonymous note: *C. ciconiella* H. S., Wocke=syn. *C. tritici* Lind, Sorhagen, Hofman etc.; *C. silenella* H. S., Nolcken, Heinemann-Wocke, etc.=syn. *C. ciconiella* H. S., partim. [J. M.]
- Toll, Sergiusz, "Drei neue Tortricidae aus Polen (Lepidoptera)" [in German; Polish & Russian summaries]. *Ann. Zool.*, Warsaw, vol. 16: pp. 349-359, 2 pls. 1957. Describes as new *Argyroloce szmyti* (Rozdzialy, near Poznán; reared from *Lidum palustre*); *Semasia* (*Zeiraphera*) *paludiphila* (Czarny Dunajec, Kreis Nowy Targ). Redescribes *Tortrix lindebergi*. Comparative notes on *A. lediana*, *A. rufana*, *S. lerneana*, *T. rolandriana*, & *T. unicolorana*. [P. B.]

- Toll, S., "Nepticula nowakowskii spec. nova aus Polen" [in German]. *Zeitschr. wiener entl. Ges.*, vol. 42: pp. 199-201, 4 figs. 1957. Type locality: "Kampinowska-Heide, Dorf Cybulice"; reared from *Peucedanum cervaria*. [P. B.]
- Toll, Sergiusz, "Studien über die Genitalien einiger Coleophoriden. XIV. Lepidoptera" [in German; Polish & Russian summaries]. *Acta zool. cracov.*, vol. 2: pp. 119-149, 9 pls. 1957. Describes as new *Coleophora didyma* (Tschkalov (Orenburg), E. European Russia), *C. stachi* (Krasnoarmiejsk (Sarepta)), *C. paraspumosella* (same locality). *C. alnifoliae* a good sp., not a form of *C. milvipennis*; 5 keys are given to distinguish last 2 spp. and *C. badiipenella* & *C. limosipenella*. Importance of dorsal paired sclerotized spots on abdomen in classification of *Coleophora* spp. is discussed. [P. B.]
- Toll, Sergiusz, & Roman J. Wojtusiak, "Revision of the palaearctic forms of the genus *Paratalanta* Meyr. (Lepidoptera, Pyralidae)" [in English; Polish & Russian summaries]. *Acta zool. cracov.*, vol. 2: pp. 279-311, 4 pls, 1 map. 1957. Describes as new *P. stachialis* (Hsiaoling, Kirin, Manchuria); discusses genus at length & re-describes other spp. (*P. ussurialis*, *P. c. cultralis*, & *P. c. amurensis*). [P. B.]
- de la Torre y Callejas, Salvador Luis, "ZELLERINA, nomen nova for *Stenoptycha* Zeller, 1863 (Pyralidae)." *Lepid. News*, vol. 11: p. 178. 1958.
- de Toulgoët, H., "Une nouvelle sous-espèce d'*Euphaedra* en Guinée Francaise (Lep. Nymphalidae)" [in French]. *Bull. Inst. franç. Afrique noire (A)*, vol. 19: pp. 870-874, 1 pl. 1957. Description of *E. themis laboureana*, a new subspecies from French Guinea (Tondon, cercle de Dubrek). [P. V.]
- Travassos, Lauro, "Contribuição ao conhecimento dos Arctiidæ. XX. Gênero *Idalus* Walker, 1855" [in Portuguese]. *Rev. bras. Biol.*, vol. 9: pp. 469-474, 16 figs. 1949. Redescribes genus and type species, *I. admirabilis*. [P. B.]
- Travassos, Lauro, "Contribuição ao conhecimento dos Arctiidæ. XXII. Ainda sobre as espécies do gênero *Bertholdia* Schaus, 1896" [in Portuguese]. *Rev. bras. Biol.*, vol. 10: pp. 447-464, 40 figs. 1950. Describes as new *B. pseudofumida* (Juquía, Poço Grande, São Paulo, Brazil), *B. almeidai* (Terezópolis, Soberbo, 1000 m., Est. do Rio, Brazil). List of spp. of genus, with descriptive & other notes on 8 spp. [P. B.]
- Travassos, Lauro, "Contribuição ao conhecimento dos Arctiidæ. XXVII. Redescrição de três espécies do gênero *Rhipha* incluídas por Seitz no gênero *Idalus* (Lepidoptera, Heterocera)" [in Portuguese]. *Rev. bras. Biol.*, vol. 12: pp. 49-57, 26 figs. 1952. Redescribes *R. dares*, *R. xanthia*, & *R. flavoplagiata*; new generic assignment. [P. B.]
- Travassos, Lauro, "Contribuição ao conhecimento dos Arctiidæ. XXVIII. (Lepidoptera, Heterocera)" [in Portuguese]. *Rev. bras. Biol.*, vol. 12: pp. 151-160, 32 figs. 1952. Redescribes *Galethalea*, & type species, *G. pica*. [P. B.]
- Travassos, Lauro, "Contribuição ao conhecimento dos Arctiidæ. XXIX. Gênero *Nelphæ* H.-Schaeffer, 1858" [in Portuguese]. *Rev. bras. Biol.*, vol. 12: pp. 325-330, 20 figs. 1952. Redescribes genus, and type species, *N. confinis*. [P. B.]
- Travassos, Lauro, "Contribuição ao conhecimento dos Arctiidæ. XXX. Espécies do gênero *Nelphæ* H.-Schaeffer, 1855" [in Portuguese]. *Rev. bras. Biol.*, vol. 12: pp. 369-384, 41 figs. 1952. Describes as new *N. arpi* (Ocoteque, SE Peru), *N. hagmanni* (S. Paulo de Olivença, Amazonas, Brazil). Transfers *setosa*, *rogersi*, *relegatum*, *moechleri*, *amazonum*, & *mara* to *Nelphæ* from *Eucereon*; gives synonymy of these spp. & *N. carolina*; redescribes *N. mara* and gives descriptive notes on several of the other spp. [P. B.]
- Travassos, Lauro, "Contribuição ao conhecimento dos Arctiidæ. XXXIV. (Lepidoptera, Heterocera)" [in Portuguese]. *Rev. bras. Biol.*, vol. 14: pp. 31-34, 10 figs. 1954. Describes as new *Ernassa gabriellæ* (Fazenda da Pedra, Ribeirão Preto, São Paulo, Brazil). [P. B.]
- Travassos, Lauro, "Contribuição ao conhecimento dos Arctiidæ. XXXV. (Lepidoptera, Heterocera)" [in Portuguese]. *Rev. bras. Biol.*, vol. 15: pp. 97-101, 10 figs. 1955. Describes as new *Rhipha gagarini* (Umuarama, 1750 m., Campos do Jordão, São Paulo, Brazil). [P. B.]
- Travassos, Lauro, "Contribuição ao conhecimento dos Arctiidæ. XXXI. *Cresera silvestri* n. sp. (Lepidoptera, Arctiidæ)" [in Portuguese]. *Boll. Lab. Zool. gen. agraria*, Portici, vol. 33: pp. 451-459, 7 figs. 1956. Type locality: Angra dos Reis (Jussaral), Est. do Rio, Brazil. [P. B.]
- Travassos, Lauro, "Contribuição ao conhecimento dos Arctiidæ. XXX. Anomalias cromáticas em *Phegoptera histrionica* H. Schaeffer, 1853 e correções ao trabalho anterior sobre o referido gênero" [in Portuguese]. *Bol. Mus. nac.*, Rio de Janeiro, n. s., *Zool.*, no. 165: 7 pp., 3 figs. 1957. Nomenclatorial notes on spp. of *Phegoptera*. Figures of color variants of *P. histrionica*. [P. B.]

- Travassos Filho, Lauro, "Contribuição ao conhecimento dos Ctenuchidae (Lep.): VII—gênero *Dinia* Walker, 1854" [in Portuguese; English summary]. *Arg Zool. Est. São Paulo*, vol. 10: pp. 185-207, 48 figs. ?1957. Detailed redescription of type species, *D. eagrus*, and brief notes on *D. subapicalis*. [P. B.]
- Vári, L., "South African Lepidoptera. I. Descriptions of new leafmining Tineina." *Ann. Transvaal Mus.*, vol. 22: pp. 331-351, 2 pls., 50 figs. 1955. Describes as new: (Stigmellidae) *Stigmella lanceifoliella* (Pretoria; on *Rhus lancea*), *S. combretella* (Pretoria, Hennops R.; on *Combretum apiculatum*), *S. laanneivora* (Pretoria; on *Lannea discolor*), *S. tecomeriae* (Cape Town; on *Tecomeria capensis*), *S. gymnosporiae* (Pretoria; on *Gymnospora buxifolia*), *S. fagarivora* (Pretoria; on *Fagara magalismontana*), *S. royenicola* (Hennops R.; on *Royena lucida*), *S. oleivora* (Hennops R.; on *Olea chrysophylla*), *S. ochnicola* (Pretoria; on *Ochna pulchra*), *S. parinarella* (Pretoria; on *Parinari capense*), *S. celtifoliella* (Pretoria & Zoutpansberg; on *Celtis africana*), *S. rhynchosiella* (Pretoria; on *Rhynchosia nitens*). (Leucopterygidae) *Leucoptera clerodendrella* (Pretoria, Hennops R.; on *Clerodendron glabrum*), *L. loxaula* (Pretoria; on *Pavetta assimilis*), *L. parinaricola* (Pretoria; on *Parinari capense*), *L. pulchrincola* (Pretoria; on *Ochna pulchra*). Figures adults, genitalia, & mines. [P. B.]
- Viette, Pierre, "Lépidoptères rhopalocères de l'Océanie française" [in French]. *Faune de l'Empire français*, no. 13: 101 pp., 126 figs. 1950. Describes as new: (Pieridae) *Cepora perimale jeanneli* (New Hebrides); *Catopsilia gorgophone novacaledonia* (New Caledonia); (Nymphalidae) *Hypolimnas catalai* (New Caledonia); *Dole-schallia bisalitide denisi* (Isle of Pines). Briefly describes area (French Polynesia & Melanesia). Gives general account of butterfly morphology. Describes all higher categories, species, and subspecies known from area; gives keys down to species level. The number of species in the area is small: 8 Hesperiidae, 11 Pieridae, 4 Papilionidae, 15 Lycaenidae, 26 Nymphalidae. [P. B.]
- Viette, P., "Sur quelques noctuelles australiennes décrites par Guenée" [in French]. *Rev. franç. Ent.*, vol. 18: pp. 101-104, 5 figs. 1951. Describes genitalia of lectotypes of *Mamestra sepultrix* (♀), *Hadena expulsa* (♀), and *H. lutra* (♂), and removes latter two from synonymy under first; selects lectotype of *M. nigerrima* Gn. (=*H. extima* Wlk.). [P. B.]
- Viette, P., "Description d'un microlépidoptère spectaculaire de Madagascar (Lep. Ectophoridae)" [in French]. *Lambillionea*, vol. 56: pp. 2-5, 3 figs. 1956. Describes as new *BEFORONA*, & type *B. mirabilella* (near Perinet, Analamazoatra Forest, E. Madagascar). [P. B.]
- Viette, P., "Sphingides nouveaux ou peu connus de Madagascar (Lep.)" [in French]. *Lambillionea*, vol. 56: pp. 59-62, 3 figs. 1956. Describes as new *Polyptychus pauliani* (near Morondova, E. Madagascar), *P. integer* (Behara, extreme S. Madagascar); *Theretra orpheus megalasia* (near Perinet, Analamazoatra Forest, E. Madagascar). Records of 2 other spp. of *Polyptychus*, and key to the 5 Madagascar spp. [P. B.]
- Viette, Pierre E. L., "Tineoidea (s.l.) nouveaux ou peu connus de Madagascar (Lepidoptera)" [in French]. *Boll. Lab. Zool. gen. agraria*, Portici, vol. 33: pp. 460-472, 5 figs. 1956. Describes as new: (Scythrididae) *HAPLOSCYTHRIS*, & type *H. paulianella* (Behara, S. Madagascar); (Xylorictidae) *PSAROLITIA*, & type *P. albogriseella* (Fort Dauphin region, Andohahelo Massif, S. Madagascar); *Herbulotiana vadonella* (near Maroantsetra, Ambodivoangy Forest, NE Madagascar); *Exoditis boisduvaliella* (same locality); (Ectophoridae) *Tanyzancla oberthürella* (Ankarafantsika Massif, Bevazaha forest station, NE Madagascar); *Rhozale silvestriella* (Fort Dauphin region, Andohahelo Massif, S. Madagascar); (Gelechiidae) *Lecithocera lectithocerella* (same locality). Notes on *Sisyroxena* (Copromorphidae). [P. B.]
- Viette, P., "Contribution à l'étude des Cossidae (4<sup>e</sup> note). Nouvelles espèces de Madagascar" [in French]. *Lambillionea*, vol. 57: pp. 99-106, 3 figs. "1957" [1958]. Descriptions of new species of Cossidae from Madagascar: *Dudgeonea malagassa* (E. Madagascar, Perinet); *Duomitus lecerfi* (central Madagascar, Belanitra), *D. altitudinis* (central Madagascar, Ankaratra Mts.); *Cossus sakalava* (W. Madagascar, Ankrafantsika). [P. V.]
- Warren, B. C. S., "Notes on a recent paper on *Erebia tyndarus* and allied species by Dr. Z. Lorkovic." *Entomologist*, vol. 91: pp. 137-144. 1958. Criticism of Lorkovic (1957) mainly relating to value of "specific" and other characters, and to correct application of the name *cassioides*. [P. B.]
- Wolff, Niels L., "Laspeyresia andabatana nov. spec. (Lepidoptera, Eucosmidæ)." *Ent. Meddelelser*, vol. 28: pp. 23-26, 6 figs. 1957. Type locality; Vang, NW Bornholm, Denmark. [P. B.]

- Wolff, Niels L., "Trifurcula griseella nov. spec. (Lepidoptera, Nepticulidae)." *Ent. Meddelelser*, vol. 28: pp. 19-22, 2 figs. 1957. Type locality: Asserbo, Denmark. [P. B.]
- Wyatt, Colin W., "Observations on *Boloria distincta* (Nymphalidae)." *Lepid. News*, vol. 11: pp. 142-146, 2 pls. 1958.
- Zelný, Ján, "Pieris napi L. subsp. *fatraica* Stanek aus dem Gebirge der Kleinen Fatra" [in Slovak; Russian summary, description in German]. *Biologia*, Bratislava, vol. 11: pp. 548-558, 18 figs. 1956. As new is described "gen. æst. *slovaca*" from Mala Fatra Mts. in SW Slovakia. All results are confused; "ssp. *fatraica*" is in reality the dark *P. bryoniae*. [J. M.]
- Zelný, Ján, "Vorläufige Mitteilungen über *Pieris bryoniae* O. und *Pieris napi* L. aus der Kleinen Fatra" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 42: pp. 85-93, 1 pl. 1957. Describes local race of *P. bryoniae*. Modifies his description of *P. n. fatraica*. [P. B.]
- Zelný, Ján, "Zur Kenntnis von *Parnassius mnemosyne* (L.) in der Slowakei" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 42: pp. 116-127, 136-140, 1 pl., 1 map. 1957. Describes as new *P. m. veselyi* (Kralovsky Chlumec region, E. Slovakia). Describes variation and distribution of Slovakian races. [P. B.]
- Zukowsky, B., "Ægeriidæ, Cossidae und Hepialidæ (Lep.)" [in German]. *Beitr. Fauna Peru*, vol. 4: pp. 85-94. 1954. Describes as new: (Cossidae) *Miacora leucocraspedita* (Huaycahuacho, 3200 m.); *Givira hypomelaleuca* (Arequipa); *Langsdorfia xylodochæcilia* (Yauca Valley, near Ica); (Hepialidæ) *Triodia similis* (Rio Sondondo, 2400 m.). Annotated list of 24 ægeriids, 45 cossids, & 15 hepialids; brief general discussion of each family. [P. B.]

#### F. BIOLOGY & IMMATURE STAGES

- Abbot, Cyril E., "The story of *Hemaris*." *Audubon Mag.*, vol. 59: p. 117. 1957. Notes on biology. [P. B.]
- Acworth, Bernard, *Bird and butterfly mysteries*. 303 pp., 2 col. pls., 13 figs. New York: Philosophical Library. 1956. Awestruck account of butterfly biology, and startling explanations of phenomena such as mimicry and migration, by a resolute non-scientist. [P. B.]
- d'Aguilar, J., J. M. Legay, & C. Vago, "Parasitisme de *Ctenophorocera pavida* Meig. sur *Bombyx mori* L. (Dipt. Larvævoridæ)" [in French]. *Bull. Soc. ent. France*, vol. 58: pp. 23-25. 1953. Records parasite whose egg was presumably consumed by larva with foodplant; lists some other hosts, & known larvævorid parasites of *B. mori*. [P. B.]
- Aitken, R. F., "A limited note on the egg, larva and local distribution of *Apatura iris* (Linn.) (Lep. Nymphalidae)." *Ent. Gaz.*, vol. 6: pp. 215-216. 1955.
- Aiyar, G. Regna, "Studies on the bionomics of *Eupterote testacea*." *Proc. 33rd Indian Sci. Congr.*: p. 122. 1947. Abstract.
- Aiyar, G. Regna, "The Cardamon Lasiocampid, *Lenodora vittata* Wlk." *Proc. 33rd Indian Sci. Congr.*: pp. 122-123. 1947. Abstract.
- Alberti, Burchard, "Eine Bemerkenswerte Eizahl bei *Arctia hebe* L." [in German]. *Zeitschr. Lepid.*, vol. 1: p. 164. 1951. Reared ♀ laid 1651 eggs. [P. B.]
- Alberti, Burchard, "Ueber das Vorkommen von *Lælia cænosa* Hbn. am Müritzsee in Mecklenburg (Lymantriidæ)" [in German]. *Zeitschr. Lepid.*, vol. 1: pp. 123-126. 1951. Describes habitat and biology of a local sp. [P. B.]
- Allan, P. B. M., "A note on *Hyloicus pinastri* L." *Ent. Rec. & Journ. Var.*, vol. 63: pp. 86-87. 1951. Suggests that eggshell is eaten because it contains substance essential to larval development. [P. B.]
- Allan, P. B. M., "Moths and bats." *Ent. Rec. & Journ. Var.*, vol. 63: pp. 116-118. 1951. Lists some noctuids eaten by pipistrelle. [P. B.]
- Allan, P. B. M., "On pupal activity." *Ent. Rec. & Journ. Var.*, vol. 64: pp. 37-40. 1952. Farfetched explanation for activity of pupæ, and subsequent quiescent period just before eclosion. [P. B.]
- Allan, P. B. M., "Notes on life-histories, &c." *Ent. Rec. & Journ. Var.*, vol. 67: pp. 31-34, 61-62, 97-99, 129-130, 206-207. 1955. Miscellaneous notes on British Lepidoptera. [P. B.]
- Allen, M. Delia, & Ireson W. Selman, "The response of larvæ of the large White Butterfly (*Pieris brassicae* (L.)) to diets of mineral-deficient leaves." *Bull. ent. Res.*,

- vol. 48: pp. 229-242, 10 figs. 1957. Among effects observed were reduction in weight, growth rate, & survival, and delayed pupation; leaves with deficiencies in N, P, K, or Fe were used. [P. B.]
- Allen, Pamela, "Parasites from *Depressaria heracliana* (L.) (Lep., Oecophoridae)." *Ent. mo. Mag.*, vol. 91: p. 198. 1955. 119 Hymenoptera (2 spp.) reared from single larva. [P. B.]
- Ananthanarayanan, K. P., & E. V. Abraham, "The 'Slug' Caterpillar, *Parasa lepida* Cram., and its control." *Journ. Bombay nat. Hist. Soc.*, vol. 53: pp. 205-209, 1 pl. 1955. Figures stages; describes biology; records 5 parasites. Sp. polyphagous (food-plants include citrus, mango, castor). [P. B.]
- Ananthanarayanan, K. P., & S. Vengopal, "Notes on the bionomics and morphology of *Hyposidra successaria* Wlk, a geometrid pest on Daincha (*Sesbania aculeata*) in Coimbatore." *Journ. Bombay nat. Hist. Soc.*, vol. 51: pp. 789-793, 6 figs. 1953. Describes all stages. [P. B.]
- Andersen, Axel, "Sommerfuglene og blomsterne. En biologisk undersøgelse" [in Danish; English summary]. *Lepidoptera*, Copenhagen, 1947: pp. 42-51. Data on spp. of flowers visited by 29 spp. of Lepidoptera. [P. B.]
- Andersen, F. Søgaard, "Effects of crowding in *Endrosis sarcitrella*." *Oikos*, vol. 7: pp. 215-226. 1956. Increased density resulted in lower survival & adult weight, & reduced proportion of ♀♀. [P. B.]
- Andersen, K. Th., "Temperatur und Feuchtigkeit als Faktoren der Lebesdauer überwinternder Larven des Zünslers *Pyrausta nubilalis* Hübn. und Thigmotaxis, Phototaxis und Hygrophilie als ökologische Faktoren" [in German]. *Zeitschr. angew. Ent.*, vol. 33: pp. 162-168, 3 figs. 1951. Survival of unfed larvæ prolonged by high humidity; temperatures over 25° C. shorten life at medium humidity. Larvæ demonstrate thigmotaxis by coming to rest in pieces of glass tubing; this reaction was stronger than the negative phototaxis. [P. B.]
- Andersson, Hugo, "Halländska zoocedicer" [in Swedish; English summary]. *Opusc. ent.*, vol. 20: pp. 132-148. 1955. Records galls caused by *Epiblema tetraquetraena* (on *Alnus* & *Betula*), *Evetria resinella* (on *Pinus*), & *Laspeyresia servilleana* (on *Salix*) from S. Sweden. [P. B.]
- Androic, M., "Quelques données sur *Cnethocampa pityocampa* Sciff. et de la lutte contre lui" [in Serbocroatian; French summary]. *Annu. Inst. biol.*, Sarajevo, vol. 3: pp. 237-258, 8 figs. 1951. Notes on biology & control in Yugoslavia. [P. B.]
- Angus, T. A., "The aerobic bacteria associated with the Eastern Hemlock Looper *Lambdina fiscellaria* (Gn.)." *Canad. Journ. Zool.*, vol. 30: pp. 208-212. 1952. Bacteria isolated from various stages all appear to be adventitious. [P. B.]
- "An Old Moth Hunter" [P. B. M. Allan], "The hibernation of *Plusia festucae* Linn." *Ent. Rec. & Journ. Var.*, vol. 65: pp. 199-201. 1953. Summary of contradictory published data on wintering stage, & request for information. [P. B.]
- "An Old Moth Hunter" [P. B. M. Allan], "The mystery of the Golden Plusia." *Ent. Rec. & Journ. Var.*, vol. 67: pp. 23-27. 1955. Speculation on method of larval hibernation of *Polyochrisia moneta*, still unknown. [P. B.]
- "An Old Moth Hunter" [P. B. M. Allan], "Gentians and moths." *Ent. Rec. & Journ. Var.*, vol. 68: pp. 129-134. 1956. Foodplants of *Stenoptilia* spp. [P. B.]
- Anonymous, "Miracle in a tomato-worm." *Living Museum*, vol. 13: pp. 203, 206, 1 fig. 1951. Metamorphosis of *Phlegethonius*. [P. B.]
- Anonymous, "Natural camouflage." *Life*, vol. 31, no. 6: pp. 44-50, 12 figs. 1951. Figures of protective & warning coloration in larval & adult Lepidoptera. [P. B.]
- Anonymous, "When moths assemble." *Discovery*, vol. 18: pp. 184-185, 2 figs. 1957. Brief discussion of assembling of ♂♂ to ♀; figures of *Saturnia pavonia*. [P. B.]
- Aonuma, Kuninobu, "A brief note on [the life-history of] *Favonius yuasai* Shirôzu (Lycaenidae)" [in Japanese]. *New Entomologist*, vol. 1, nos. 3/4: pp. 27-28, 1 fig. 1952. Foodplant *Quercus*. [T. I.]
- Aonuma, Kuninobu, "On the foodplants of *Lycenides yarigadakeana* Mats. (Lycaenidae)" [in Japanese]. *New Entomologist*, vol. 1, nos. 3/4: pp. 28-30, 5 figs. *Astragalus* spp. & *Hedysarum* spp. [T. I.]
- Aoyagi, Masahiro, "Feeding habits of young larvæ of *Argynnis hyperbius* Johanssen (Nymphalidae)" [in Japanese]. *Insect Ecology*, vol. 3: pp. 33-35, 2 figs. 1950. Foodplants: *Viola* spp. [T. I.]
- Arbuthnot, K. D., & J. M. Wright, "Parasites of the European Corn Borer in Illinois." *Trans. Illinois Acad. Sci.*, vol. 44: pp. 222-234, 2 figs. 1952. Records of native and introduced parasites of *Pyrausta nubilalis*. [P. B.]

- von Archimowitsch, A., "Función de los insectos en el transporte del polen y polinización de la remolacha" [in Spanish; German summary]. *Bol. Real Soc. español Hist. nat., Sección biol.*, vol. 28: pp. 279-309. 1950. Records *Eurrhypara urticata* and *Erastria trabealis* pollinating turnips. [P. B.]
- Armstrong, Edward A., "Nidicoles and parasites of the wren." *Irish Naturalists' Journ.*, vol. 11: pp. 57-64. 1953. Record of wren catching *Sphinx ligustri*. [P. B.]
- Arnaud, Paul H., "The occurrence of *Salmacia longipulvilli* in the Hawaiian Islands (Diptera: Larvævoridæ)." *Ent. News*, vol. 68: pp. 259-263, 1 pl. 1957. Parasite of *Feltia subterranea* (new record) and *Agrotis orthogonia*; Hawaiian host unknown. [P. B.]
- Arthur, A. P., & H. C. Coppel, "Studies on dipterous parasites of the Spruce Budworm, *Choristoneura fumiferana* (Clem.) (Lepidoptera: Tortricidæ). I. *Sarcophaga aldrichi* Park. (Diptera: Sarcophagidæ)." *Canad. Journ. Zool.*, vol. 31: pp. 374-391, 21 figs. 1953. Describes early stages of this parasite, also recorded from other forest insects and capable of living on carrion. [P. B.]
- Atkins, E. L., Jr., M. H. Frost, Jr., L. D. Anderson, & A. S. Deal, "The 'Omnivorous Leaf Roller', *Platynota stultana* Wlshm., on cotton in California: nomenclature, life history, and bionomics (Lepidoptera, Tortricidae)." *Ann. ent. Soc. Amer.*, vol. 50: pp. 251-259, 6 figs. 1957. Describes all stages and life cycle; records parasites and predators. [P. B.]
- Atkinson, J. L., "Notes on breeding *Euplagia quadripunctaria* Poda." *Ent. Rec. & Journ. Var.*, vol. 65: pp. 309-310. 1953.
- Atwal, A. S., "Influence of temperature, photoperiod and food on the speed of development, longevity, fecundity and other qualities of the Diamond-back Moth *Plutella maculipennis* (Curtis) (Lepidoptera: Tineidæ)." *Austral. Journ. Zool.*, vol. 3: pp. 185-221, 4 figs. 1955. Quality of the larval food appeared to be the most important factor influencing larval and adult size, amount of silk produced by larvæ, longevity of adults, & male fertility in *P. maculipennis*. [I. C.]
- Aubert, Jacques-F., "Biologie de l'ichneumonide *Hemiteles melanarius* Grav. (Hym.)" [in French]. *Bull. Soc. ent. France*, vol. 59: pp. 137-140, 2 figs. "1954" [1955]. Parasite of *Pieris brassicae*; recorded from various other insects. [P. B.]
- Auersch, L., "Zur Kenntnis des Goldafters (*Euproctis chrysorrhœa* L.)" (Beitrag I) [in German]. *Beitr. Ent.*, vol. 5: pp. 96-126, 7 figs. 1955. Lists foodplants; describes biology; records numerous parasites & predators; discusses factors producing outbreaks. [P. B.]
- de Avila Perreira, Olga, "Contribuição ao conhecimento da ecologia e evolução de *Ecpanteria indecisa* Walker, 1855 (Lepidoptera, Arctiidæ)" [in Portuguese]. *Rev. brasil. Biol.*, vol. 17: pp. 211-218, 5 figs. 1957. Describes all stages & biology; foodplants *Senecio crassiflorus* & *Iresine portulacoides*. [P. B.]
- Baeta Neves, C. M., "II - contribuição para o conhecimento da entomofauna florestal indígena" [in Portuguese; French summary]. *Bol. Soc. portuguesa Ciênc. nat.*, vol. 15: pp. 69-90, 4 pls, 1 map. 1947. Biological & distributional notes on *Lithocolletus platani* (on *Platanus*), *Semasia minutana* (on *Populus*, *Ulmus*, & *Robinia*), *Evetria buolianae*, *Diorystria splendidella* (on *Pinus Pinaster*), *Lycia hirtaria* (on *Myrica* etc.), & *Thaumatopœa pityocampa* (on *Pseudotsuga* & *Pinus*). [P. B.]
- Baeta Neves, C. M., "Lista dos insectos da 'biocoenose do sobreiro (*Quercus suber* L.)'" [in Portuguese]. *Bol. Soc. portuguesa Ciênc. nat.*, vol. 18: pp. 33-46, 1 pl. 1950. List of spp. feeding on this oak, including 38 Lepidoptera (18 families). [P. B.]
- Baggolini, M., "Un nouveau parasite de la tordeuse orientale du pêcher (*Laspeyresia molesta* Busck): *Lissonota buolianæ* Hart. (Hym. Ichn.)" [in French]. *Mitt. schweiz. ent. Ges.*, vol. 25: pp. 260-262, 2 figs. 1952. New host record.
- Baker, B. R., "Hydræcia petasitis" (Doubl.) in Berkshire (Lep: Caradrinidæ)." *Ent. Gazette*, vol. 8: pp. 126-128, 2 figs. 1957. Describes & figures pupa. [P. B.]
- Bakkendorf, O., "Description of three species of *Tetrastichus* Haliday (Micro-Hym.), with a host list." *Ent. Meddelelser*, vol. 26: pp. 549-576, 57 figs. 1952. Lists known hosts of *Tetrastichus* spp., including *Neptis*, *Attacus*, and various moths (especially micros). [P. B.]
- Bakkendorf, O., "Notes on Icelandic and Greenlandic chalcidoideous Hymenoptera." *Ent. Meddelelser*, vol. 27: pp. 135-162, 44 figs. 1955. Includes records of *Cirrospilus vittatus* parasitic on mining insects, among them *Nepticula*, *Lyonetia*, & *Elachista*. [P. B.]
- Balfour-Browne, W. A. F., "The domestic affairs of caterpillars." *Proc. Roy. Philos. Soc. Glasgow*, vol. 73: pp. 85-86. 1948. Abstract.

- Balogh, J., & G. Gere, "Über die Ernährungsbiologie und Luftstickstoffbindung der *Hyphantria*-Raupen" [in German]. *Acta biol. Acad. Scient. Hung.*, vol. 4: pp. 431-452, 3 figs. 1953. Analysis of amount of material consumed, amount incorporated into tissues, & amount of frass produced, during larval life. Larva gets some nitrogen directly from air, presumably through fixation by symbiotic microorganisms. [P. B.]
- Bank, G., "Tyria jacobæa L. op klein hoefblad. (Lep. Arctiidæ)" [in Dutch]. *Ent. Berichten*, vol. 14: p. 245, 1 fig. 1953. Figures larva on *Tussilago farfara*. [P. B.]
- Barbosa, A. J. S., 'Notas breves sobre a ocorrência, biología e métodos de control da 'lagarta dos amarilis' *Brithys panzeri* Cyr.' [in Portuguese; English summary]. *Rev. Fac. Cienc. Univ. Lisboa*, 2<sup>a</sup> Serie, C, vol. 1: pp. 281-290, 3 pls, 2 figs. 1951. Describes & figures all stages of African noctuid which bores in lilies. [P. B.]
- Barnes, D., & A. C. Hodson, "Low temperature tolerance of the European Corn Borer in relation to winter survival in Minnesota." *Journ. econ. Ent.*, vol. 49: pp. 19-24. 1956. Gradual increase in cold resistance of larvæ of *Pyrausta nubilalis* from September to December. [W. C.]
- Basu, A. C., "Extent of damage by the moth *Dichocrocis punctiferalis* Fb. to three strains of the castor plant." *Journ. Bombay nat. Hist. Soc.*, vol. 47: pp. 326-328. 1947.
- Basu, A. C., "Experiments on the pupa formation of *Prodenia litura* Fabr., (Lepidoptera: Noctuidæ) a pest of cauliflower in West Bengal." *Proc. zool. Soc. Bengal*, vol. 2: pp. 73-79. 1949. Larva must be below surface to pupate; soft, compact medium most favorable. [P. B.]
- Baudyš, Eduard, "Ein Beitrag zur Verbreitung der Zooecidien im Gebiete des Reichensteinener Gebirges" [in Czech; Russian & German summaries]. *Acta Rer. nat. Distr. Ostraviensis*, vol. 15: pp. 125-135. 1954. Lists some spp. of mining insects of the Rychlebské hory Mts. in Silesia. Some spp. of Lepidoptera are recorded with their foodplants. [J. M.]
- Baynes, E. S. A., "Egg-laying habits of *Nyssia zonaria* Schiff." *Ent. Rec. & Journ. Var.*, vol. 68: pp. 229-230. 1956. Eggs laid in crevices in driftwood, in sandy area. [P. B.]
- Bean, J. L., & H. O. Batzer, "Mean head width for Spruce Budworm larval instars in Minnesota and associated data." *Journ. econ. Ent.*, vol. 50: p. 499. 1957. Head width measurements for all instars. [W. C.]
- Beaufoy, S., *Butterfly lives*. 128 pp., 191 figs. London: Collins. 1947. See review in *Lepid. News*, vol. 3: p. 37.
- Beaumont, J. W. L., & R. Lal, "Penetration through the egg-shell of *Pieris brassicæ* (L.)." *Bull. Ent. Res.*, vol. 48: pp. 109-125, 1 fig. 1957. Describes structure of egg, properties of its membranes, and penetration of water and various toxic substances. [P. B.]
- Beck, Edwin G., "A comparison of two stem galls on *Solidago* induced by the larvæ of two different lepidopterous insects." *Proc. Tennessee Acad. Sci.*, vol. 27: p. 200. 1952 Abstract; *Gnorimoschema, Eucosma*.
- Beck Stanley Dwight, "Nutrition and growth of the European Corn Borer." *Univ. Wisconsin Summ. doct. Diss.*, vol. 11: pp. 136-137. 1951. Abstract.
- Beck, Stanley D., "Nutrition of the European Corn Borer, *Pyrausta nubilalis* (Hbn.). IV. Feeding reactions of first instar larvæ." *Ann. ent. Soc. Amer.*, vol. 49: pp. 399-405, 2 figs. 1956. Reactions of larvæ to chemicals and plant materials used as additives with the agar-base diet developed earlier by Beck. [P. B.]
- Beck, Stanley D., "The European Corn Borer, *Pyrausta nubilalis* (Hbn.), and its principal host plant. I. Orientation and feeding behaviour of the larva on the corn plant. II. The influence of nutritional factors on larval establishment and development on the corn plant." *Ann. Ent. Soc. Amer.*, vol. 49: pp. 552-558, 562-568. "1956" [1957]. Study of behaviour responses of young larva which determine feeding site, and of correlation of feeding behaviour and larval nutritional requirements. [P. B.]
- Beck, Stanley D., & J. F. Stauffer, "The European Corn Borer, *Pyrausta nubilalis* (Hbn.), and its principal host plant. III. Toxic factors influencing larval establishment." *Ann. ent. Soc. Amer.*, vol. 50: pp. 166-170, 3 figs. 1957. Reports unidentified substances in maize plants which are mildly toxic to larvæ. [P. B.]
- Beck, Stanley D., "The European Corn Borer, *Pyrausta nubilalis* (Hün.), and its principal host plant. IV. Larval saccharotropism and host plant resistance." *Ann. ent. Soc. Amer.*, vol. 50: pp. 247-250, 2 figs. 1957. Larval growth varies with sugar content of maize in absence of other variables; increase in sugar content reduces toxic effect of one of factors mentioned in preceding paper. [P. B.]
- Beck, Stanley D., "The European Corn Borer, *Pyrausta nubilalis* (Hün.), and its principal host plant — VI. Host plant resistance to larval establishment." *Journ.*

- Insect Physiol.*, vol. 1: pp. 158-177. 1957. Study of chemicals in corn plant which depress growth rate & increase mortality of larvæ. [P. B.]
- Beckner, Günther, "Frass von Lepidopteren im Kambium gesunder Kiefern in Mittel- und Nordamerika" [in German]. *Zeitschr. angew. Ent.*, vol. 34: pp. 170-177, 3 figs. 1952. Describes larva, pupa, and larval working of an unknown ægeriid mining in cambium of *Pinus* spp. in Guatemala; notes on other larvæ found in same layer, and on Lepidoptera (Ægeriidae, Pyralidæ) feeding on conifer cambium in North America. [P. B.]
- Beirne, Bryan P., "The habitat-distribution of the British maritime Lepidoptera." *Journ. Soc. Brit. Ent.*, vol. 3: pp. 121-133. 1950. Survey of British spp. with notes on probable causes of habitat limitation (most often: foodplant distribution). [P. B.]
- Beirne, Bryan P., "Insects found in foodstuffs and stored products in Ireland." *Ent. Gaz.*, vol. 3: pp. 81-84. 1952. Records 8 spp. of Microlepidoptera from wheat, and *Ephestia* spp. from various stored products. [P. B.]
- Beirne, Bryan P., "Ecology of British marsh and fen Lepidoptera." *Ent. Gaz.*, vol. 4: pp. 297-304. 1953. Regards occurrence of foodplant as dominant factor in localization of these spp.; fens and marshes were apparently never continuous in Britain, and a barrier of unsuitable country has evidently prevented northward spread of most species limited to these situations. [P. B.]
- Beirne, Bryan P., "Natural fluctuations in abundance of British Lepidoptera." *Ent. Gaz.*, vol. 6: pp. 21-52. 1955. Summary of seasons since 1864, and analysis of causes of fluctuations in Lepidoptera generally and in individual species; based on incomparably rich literature on this fauna. [P. B.]
- Bell, Max E., "Histology of the maize plant in relation to susceptibility to the European Corn Borer." *Iowa State Coll. Journ. Sci.*, vol. 31: pp. 9-17, 8 figs. 1956. *Pyrausta nubilalis* can only survive in plants which have reached flowering stage. Biochemical & histological differences between resistant & non-resistant strains apparently account for susceptibility. [P. B.]
- Belošel'skaya, Z. G., "Vishnyovaya pobegovaya mol' (*Argyresthia ephippella* F.) kak vreditel' vishni i slivy" [in Russian; Cherry Shoot Moth as an injurious insect on cherry and plum trees]. *Ent. Obozrenie*, vol. 32: pp. 86-92, 3 figs. 1952. Describes early stages, biology & control in Leningrad region. [N. O.]
- Benander, Per, "Några *Stigmella*-minor (Lep. Tineina)" [in Swedish]. *Opusc. Ent.*, vol. 15: pp. 97-110, 5 figs. 1950. Describes and figures mines of *Stigmella* spp. mining leaves of *Pyrus*, *Crataegus*, *Corylus*, *Carpinus*, *Ulmus*, *Betula*; gives keys to mines on each tree. *S. nitidella* & *S. desperatella* new for Sweden. Points out some probable misidentifications of mines. [P. B.]
- Benardeau, X., & Y. Montupet, "Observations sur les chenilles de *Cossus* (Lep. Cossidæ)" [in French]. *Bull. Soc. ent. France*, vol. 62: pp. 122-124. 1957. Observations on the larvæ of *Cossus cossus*. Galleries made in carrots by larvæ contain no *Penicillium* or *Mucor* outside of these larvæ even in favorable conditions for the development of mold. Dead bodies of the larvæ are never moldy. [P. V.]
- Berg, Wilhelm, "Frassbilder von Blattminieren an Obstbäumen und verwandten Ziergehölzen" [in German; English summary]. *Zeitschr. angew. Ent.*, vol. 39: pp. 20-27, 12 figs. 1956. Describes mines of Microlepidoptera attacking leaves of apple and other fruit trees, *Crataegus*, *Chænoneles*, and *Sorbus*; representatives of genera *Lyonetia*, *Stigmella*, *Lithocolletis*, *Callisto*, *Leucoptera*, *Recurvaria*, *Coleophora*, *Hyponeueta*. Figures some mines. [P. B.]
- Berger, L. A., "Nouvelles observations sur les moeurs d'*Augiades venata* Bremer-Grey" [in French]. *Lambillonea*, vol. 55: p. 83. 1955. New observations on the life-history of *A. venata*. [P. V.]
- Bergold, Gernot, "Fortschritte und Probleme auf dem Gebiete der Insektenviren" [in German]. *Zeitschr. angew. Ent.*, vol. 33: pp. 267-278, 3 figs. 1951. Summary of knowledge of insect viruses, especially those causing granuloses and polyhedroses of *Bombyx*, *Lymantria*, and other Lepidoptera. [P. B.]
- Bergold, G. H., & B. Flaschenträger, "The polyhedral virus of *Prodenia litura* (Fabr.) (Lepidoptera, Noctuidæ)." *Nature*, vol. 180: pp. 1046-1047, 2 figs. 1957.
- Bergold, G. H., & W. E. Ripper, "The polyhedral virus of *Heliothis armigera* (Hbn.) (Lepidoptera: Noctuidæ)." *Nature*, vol. 180: pp. 764-765, 2 figs. 1957.
- Betts, Monica, "The food of titmice in oak woodland." *Journ. Animal Ecol.*, vol. 24: pp. 282-323, 3 figs. 1955. Survey of food of 4 spp. of titmice over a year, including many Lepidoptera (determined, in part); with discussion of population size of *Oporophaga brumata* in the area and effects of bird predation on this species. [P. B.]

- Betts, Monica M., "A list of insects taken by titmice in the Forest of Dean (Gloucestershire)." *Ent. mo. Mag.*, vol. 92: pp. 68-71. 1956. Includes some 40 spp. of Lepidoptera (all stages) found in gizzards. [P. B.]
- Bieberdorf, G. A., "Life cycle studies on the Pecan Nut Casebearer, *Acrobasis caryae* Grote." *Proc Okla. Acad. Sci.*, vol. 29: pp. 32-35. 1950.
- de Biezanko, Ceslau M., Rubens E. Bertholdi, & Oswaldo Baucke, "Relação dos principais insetos prejudiciais observados nos arredores de Pelotas nas plantas cultivadas e selvagens" [in Portuguese]. *Agros*, vol. 2: pp. 156-213. 1949. Lists some 450 spp. of wild and cultivated plants of Rio Grande do Sul, Brazil, and insects that feed on them, including many Lepidoptera. Plants are arranged alphabetically by genus; there is no index of insects. Valuable for students in neotropical region generally. [P. B.]
- Biliotti, Émile, "Survie des larves endophages de tachinaires à une mort prématuée de leur hôte par maladie" [in French]. *C. R. Acad. Sci.*, Paris, vol. 240: pp. 1021-1023, 1 fig. 1955. Dipterous parasites of *Thaumatomæa*, *Malacosoma*, & *Plusia* survived epidemics in stocks of hosts, completing development on dead larvæ. [P. B.]
- Biliotti, Émile, "Vie endoparasitaire et diapause chez *Phryxe secunda* BB." [in French]. *C. R. Acad. Sci.*, Paris, vol. 240: pp. 915-916. 1955. Biology of this parasite of *Thaumatomæa*. [P. B.]
- Birchenough, R. F., "Foodplants of *Pseudaipois bicolorana* Fuess. (*prasinana* L.)." *Ent. Rec. & Journ. Var.*, vol. 66: p. 24. 1954. Oak acceptable; birch rejected. [P. B.]
- Bird, F. T., & Mary M. Whalen, "A nuclear and a cytoplasmic polyhedral virus of the Spruce Budworm." *Canad. Journ. Zool.*, vol. 32: pp. 82-86, 3 pls. 1954. Describes 2 diseases of *Choristoneura fumiferana*. [P. B.]
- Birkett, Neville L., "Moths and wasps." *Ent. Rec. & Journ. Var.*, vol. 64: pp. 242-243. 1952. *Vespa vulgaris* attacking moths in light trap. [P. B.]
- Birkett, Neville L., "Another note on *Calophasia lunula* Hufn." *Ent. Rec. & Journ. Var.*, vol. 68: pp. 273-274. 1956. Reared on *Linaria cymbalaria*. [P. B.]
- Blackie, J. E. H., "A further note on *Agapetes galathea*, L. (Lep. Satyridæ)." *Entomologist*, vol. 86: pp. 202-204. 1953. Notes on mites attacking butterflies, etc. [P. B.]
- Blair, K. G., "On the early stages of *Rhizedra lutosa* Hübn. (Lep., Caradrinidae)." *Ent. mo. Mag.*, vol. 87: pp. 131-133. 1951. Describes all stages and compares them with those of *Sedina buettneri* and some other noctuids; foodplant *Phragmites*. [P. B.]

#### G. PHYSIOLOGY AND BEHAVIOR

- Wojtczak, Anna B., "Studies on the biochemistry of the Waxmoth (*Galleria mellonella* L.). 15. Pyro- and polyphosphates of the excreta of larvæ and their enzymatic hydrolysis." *Acta Biol. experimentalis*, vol. 17: pp. 235-253, 5 figs. 1956.
- Wojtczak, Lech, "Studies on the respiratory enzymes of the Wax Moth (*Galleria mellonella* L.)" [in Polish; Russian & English summaries]. *Prace Soc. Scient. Lodzienensis, Sect. III*, no. 31: 46 pp. 1954.
- Wojtczak, L., "Activity of some respiratory enzymes during the development of Silk-worm, *Bombyx mori* L." *Acta Biol. experimentalis*, vol. 17: pp. 205-213. 1956. Measurement of respiratory rates of whole animals & homogenates and of phenol-oxidase & succinoxidase activity. [P. B.]
- Wulff, V. J., "Physiology of the compound eye." *Physiol. Revs.*, vol. 36: pp. 145-163. 1956. Review, covering arthropods in general. [P. B.]
- Wyatt, G. R., T. C. Lougheed, & S. S. Wyatt, "The chemistry of insect hemolymph. Organic constituents of the hemolymph of the Silkworm, *Bombyx mori*, and two other species." *Journ. gen. Physiol.*, vol. 39: pp. 853-868, 1 fig. 1956. Also *Galleria mellonella* and a sawfly.
- Zebe, Ernst, "Über die Stoffwechsel der Lepidopteren" [in German]. *Zeitschr. vergl. Physiol.*, vol. 36: pp. 290-317, 11 figs. 1954. Studies of Lepidoptera of several families show that fat metabolism is the most important energy source of adults, and that adults which feed convert carbohydrates to fats. [P. B.]
- Zielinska, Z. M., "Nitrogen metabolism of the Waxmoth larvæ (*Galleria mellonella*)" [in Polish; Russian & English summaries]. *Prace Soc. Scient. Lodzienensis, Sect. III*, no. 33: 23 pp., 1 fig. 1955.
- Ziegler-Günder, Irmgard, "Pterine: Pigment und Wirkstoffe im Tierreich" [in German; English summary]. *Biol. Reviews*, vol. 31: pp. 313-348, 1 pl, 6 figs. 1956. Survey of distribution, chemistry, & function of pigments, found in pierids, *Bombyx*, *Ephesia*, & many other animals. [P. B.]