

RECENT LITERATURE ON LEPIDOPTERA

(Under the supervision of PETER F. BELLINGER)

For explanatory note, see preceding issues of the *News*.

A. GENERAL

Schuler, J. E., Friedrich Schnack, & Josef Bijok, *Fliegende Kleinodien. Ein farbiges Falterbuch*. [in German]. 194 pp., 42 col. pls. Stuttgart: Seewald & Schuler. 1955. Magnificent color plates of spectacular Lepidoptera; with a brief account of the biology of Lepidoptera. [P.B.]

B. SYSTEMATICS AND NOMENCLATURE

International Commission on Zoological Nomenclature, "Opinion 282. Determination of the species to which the specific name *plexippus* Linnæus, 1758, as published in the combination *Papilio plexippus* (Class Insecta, Order Lepidoptera) shall be held to apply." *Opin. Decl. Intern. Comm.*, vol.6: pp.225-268, 1 pl. 1 Oct. 1954. The neotype of *plexippus* is selected as the specimen figured by Clark in *Proc. U. S. Natl. Mus.*, vol.90, pl.71, fig.1 (1941) (figure reproduced here); type locality is Kendall, N. Y.; *plexippus* is placed on the *Official List*. [P.B.]

International Commission on Zoological Nomenclature, "Opinion 286. Suppression, under the Plenary Powers, of the specific name *ajax* Linnæus, 1758, as published in the combination *Papilio ajax* (Class Insecta, Order Lepidoptera)." *Opin. Decl. Intern. Comm.*, vol.8: pp.29-48, 12 Oct. 1954. Placed on *Official Index: ajax, xanthus* Linn. (invalid original spelling for *xuthus*); *xuthus* is placed on the *Official List*. [P.B.]

International Commission on Zoological Nomenclature, "Opinion 382. Validation under the Plenary Powers of the generic name *Sicyonia* Milne Edwards (H.), 1830 (Class Crustacea, Order Decapoda) and action consequential thereto." *Opin. Decl. Intern. Comm.*, vol.12: pp.43-58, 24 Jan. 1956. Suppresses *Sicyonia* Hbn.; places on *Official List Heliconius* Kluk and its type *charithonia* Linn. (*Sicyonia* is a synonym of *Heliconius*); places on *Official Index: Sicyonia* Hbn., *Heliconius* Linn., *Heliconius* Latreille, *Heliconia* Godart, *Apostrophia* Hbn. [P.B.]

International Commission on Zoological Nomenclature, "Opinion 400. Validation under the Plenary Powers of the generic name *Melanargia* Meigen, 1828 (Class Insecta, Order Lepidoptera)." *Opin. Decl. Intern. Comm.*, vol.12: pp.419-432, 16 July 1956. *Agapetes* Billberg is suppressed for purposes of priority but not of homonymy; *Melanargia*, *galathea* Linn. (its type species) and *lachesis* Hbn. are placed on the *Official Lists*; *Arge* Hbn. is placed on the *Official Index*. [P.B.]

International Commission on Zoological Nomenclature, "The official record of proceedings of the International Commission on Zoological Nomenclature at their session held in Paris in July, 1948." *Bull. Zool. Nomencl.*, vol.4: 760 pp. 1950. Record of meetings and preliminary notice of decisions, including some of particular interest to lepidopterists. All decisions have been, or will be, published in the *Opinions*. [P.B.]

Janse, A. J. T., "The methods and aims of taxonomic study in entomology, with special reference to Lepidoptera." *So. African Journ. Sci.*, vol.25: pp.107-112, March 1949.

Kauffman, G., "*Reverdinus floccifer habiba* n.ssp. (Lepidopt. Hesperiiidae)" [in German]. *Mitt. Schweiz. Ent. Ges.*, vol.28: pp.288-290, 8 figs. Oct. 1955. Description of the new subspecies from Spanish Morocco. [P.V.]

Kiriakoff, S. G., "Recherches sur les organes tympaniques des lépidoptères en rapport avec la classification. IX. Arctiidae" [in French]. *Bull. & Ann. Soc. Ent. Belg.*, vol.88: pp.26-50, 7 figs. 29 Feb. 1952. Proposes the new higher categories ENDROSIDÆ; NYCTEMERINES, ARCTIINES (supertribes of Arctiinae); ARCTIINI, RHODOGASTRINI (tribes of Arctiines); CTENUCHINES, AMATINES (supertribes of Ctenuchinae). Describes tympanic organs of 26 spp.; removes *Atolmis* to lithosiids; regards *Diacrisia* and *Pericallia* as composite genera, and describes as new *SEYDELIA* (type *P. ellioti*). Remarks on the arctiid complex, justifying the new classification. [P.B.]

Kiriakoff, S. G., "Contribution à l'étude des lépidoptères hétérocères (3^e note). Zygænidæ nouveaux du Congo Belge" [in French]. *Bull. Inst. Roy. Sci. Nat. Belg.*, vol.30, no.42: 8 pp., 8 figs. Dec. 1954. Describes as new (Belgian Congo): *Arniocera rectifascia*, *A. vanstræleni*, *A. elliptica*, *A. inornata*; *Byblisia micanis*; *Pedoptila psalidoprocne*; *Semioptila hedydipna*, *S. macrodipteryx*. List of some other Zygænidæ from the same country. [P.V.]

- Kiriakoff, S. G., "Onderzoekingen over de Gehoororganen bij Vlinders met Betrekking tot de Classificatie. XI. Agaristidæ" [in Flemish, French summary]. *Verb. Kon. Vlaamse Akad. Wet. Lett. België*, no.47: 70 pp., 38 figs. 1954. It is a pity that this important paper on the study of the tympanal organ in the Agaristidæ was published in Flemish, a very little-known language. Many species are studied, with general considerations on the family following. Fortunately the French summary is extensive. [P.V.]
- Kiriakoff, S. G., "Contribution à l'étude des lépidoptères hétérocères (4^e note). Sur les Agaristidæ du Congo Belge" [in French]. *Bull. Inst. Roy. Sci. Nat. Belg.*, vol.31, no.69: 7 pp., 3 figs. Nov. 1955. Describes as new *CHARITOSEMIA* (type *geraldi* Kirby); *Ægocera jordani* (Belgian Congo); *Heraclia hornimani meridionalis* (Belgian Congo). [P.V.]
- Kiriakoff, S. G., "Le système phylogénétique: Principes et méthodes" [in French]. *Bull. & Ann. Soc. Ent. Belg.*, vol.91: pp.147-158. 30 June 1955. Account of phylogenetical principles and methods, with reference to the different publications of Henning. Opposition, according to the author, between the typological system and the phylogenetic system. Paleontology, geology, chorology, morphology, genetics, serology, and biochemistry are the basis of the phylogenetic system. The author defends his classification, published in 1948 and adopted, in large part, by Hennig. Many technical terms are employed or created. The divisions into suborders, infraorders, superlegions, sublegions and supercohorts might seem too numerous to many specialists. The important discovery of a tympanal organ in the Cossidæ is reported. [P.V.]
- Kiriakoff, S. G., "New genera and species of African Notodontidæ (Lepid.)." *Rev. Zool. Bot. Afric.*, vol.52: pp.36-348, 2 pls., 18 figs. 30 Dec. 1955. Describes as new *Brachychira argentina* (Sankuru), *B. subargentea* (Sankuru), *B. ligata* (Sankuru), *B. numenius* (Sankuru); *Cerasana rothschildi* (Sierra Leone), *C. eos* (Sankuru); *Overlaetia glaphyra* (N.W. Rhodesia); *DERIDDERA*, and type *D. margarethæ* (Sankuru); *Atrasana olivacea* (Angola); *IRIDOPLITIS*, and type *I. iridescens* (N.W. Rhodesia); *SIMESIA* (type *dasychiroides* Btl.), *S. orestes* (Angola), *S. pylades* ("German S.W. Africa"); *PROSPHOLITIS*, and type *P. aglaurus* (Nyasaland); *Catocbria postflava* (Natal); *Rigema amphiarus* (Gold Cost). [P.V.]
- Kiriakoff, S. G., "Sur le statut taxonomique d'*Erebia tyndarus* Esper" [in French]. *Lambillionea*, vol.55: pp.90-93. 25 Dec. 1955. Application of the taxa proposed by the author to the *E. tyndarus* complex. [P.V.]
- Kozhanchikov, I. V., "Insecta Lepidoptera. Bagworms (fam. Psychidæ)" [in Russian]. *Fauna SSSR*, n.s., no.62: 517 pp., 334 figs. Moscow: Akad. Nauk SSSR. 1956. Describes following as new (Psycheoidinæ): *EUMELASINA*, and type *E. ardua* (Guberlia R., SE Ural region), *E. pliginskii* (Sevastopol, Crimea), *E. arguta* (Ordubad, E. Transcaucasia); *MELAPSCHE*, and type *M. multivenosa* (Great Never, Amur R. region); *Fumea elongatella* (N. Caucasus), *F. ussuriensis* (S. Sikhote-Alin'); *PSEUDODIPLODOMA* (type *Diplodoma ragonoti*); *Taleporia caucasica* (Borzhom, Transcaucasia); *Solenobia albiflavella* (Huzar, SW foothills of Hissar Range, Central Asia); *Epichnopterix crimaëana* (Sevastopol); *Bijugis songarica* (R. Almatinka, Trans-Iliisk Ala-Tau, Central Asia), *B. subgrisea* (Iakovlevka, south shore, S. Sikhote-Alin'); *PSYCHIDOPSIS* (type *Bijugis alpherakii*). (Psychinæ): *Oiketicoides leoi* (near Stalinabad, Tadzhikistan), *O. demarcata* (Margelan, Bukhara, Central Asia), *O. squamopilosa* (Fergana & Zalaïsk Mts., Central Asia), *O. nigripilosa* (Anzob Pass, Hissar Mts., Central Asia), *O. heptapotamica* (Chu R. valley, Kirgizia, Central Asia), *O. theodori* (Ili R. valley, SE Kazakhstan), *O. simulans* (Ilanvartsevo, SE Ural region), *O. unicolorata* (Erevan, Armenia); *Acanthopsyche incana* (S. Ural region), *A. subatrata* (Vinogradovka, Dalni Vostok), *A. desertella* (Aram-Kungei, Zalaïsk Mts., Central Asia); *Amictoides borealis* (Dagestan, Caucasus), *A. minuta* (Araksa R. valley, Transcaucasia), *A. plotnikovi* (barren steppe, Samarkand), *A. eldarica* (Eldar Mts., Kuri R. valley), *A. acuta* (Kirovabad, Kuri R. valley), *A. acutipennis* (Darasham, Transcaucasia), *A. subgrisea* (Araksa R. valley, Transcaucasia); *Psyche brachycornis* (Kerch, E. Crimea); *Apteronia orientalis* (Araksa R. valley); *PTILAMICTA*, and type *P. erythropyga* (Ordubad, Transcaucasia). General account of morphology, biology, and distribution of family, and systematic revision of Russian species. See review in *Lepid. News*, vol.10: pp.177-178. [P.B.]
- de Lesse, H., "Une nouvelle formule chromosomique dans le groupe d'*Erebia tyndarus* Esp. (Lépidoptères Satyrinæ)" [in French]. *C. R. Acad. Sci. Paris*, vol.241: pp.1505-1507. Nov. 1955. A new chromosome number in the *E. tyndarus* group: *E. iranica* (n=51). Lectotypes are designated for *E. dromulus* and *E. cassioides*. [P.V.]
- Lorkovic, Z., & H. de Lesse, "Note supplémentaire sur le groupe d'*Erebia tyndarus* Esp." [in French]. *Lambillionea*, vol.55: pp.55-58. Nov. 1955. The authors consider *E.*

- nivalis* (n=11) and *E. calcarius* (n=8) as good species. On the contrary, *E. tyndarus* (2n=20 in two massifs of the Alps) and *E. cassioides* (2n=20 in nine massifs of the Alps) have still the status of semispecies, their existence together being still unproved. [P.V.]
- Marion, H., "Pyrales nouvelles de Madagascar (Lep.)" [in French]. *Bull. Soc. Ent. France*, vol.60: pp.114-119, 6 figs. 15 Dec. 1955. Describes as new (all from Madagascar): *PERINETOIDES* (Galleriidae), and type *P. margaritalis*; *Doddiana cyanifusalis*; *BETSIMISARAKA* (Epipaschiinae) and type *B. viettealis*; *Peucela ignealis*; *ANTISINDRIS* (Pyralinae) and type *A. bipunctalis*; *Prosaris hepaticalis*, *P. percuprealis*. [P.V.]
- Marion, H., "Les *Coptobasoides* de Madagascar avec description de deux espèces nouvelles (Lep. Pyraustidae)" [in French]. *Nat. Malgache*, vol.7: pp.191-194, 3 figs. Feb. 1956. Study of this pyralid genus in Madagascar; describes as new *C. pauliani*, *C. latericalis* (both from E. Madagascar). [P.V.]
- Mere, R. M., "What next?" *Ent. Gaz.*, vol.6: pp.224-227, 2 figs. Oct. 1956. Speculation on future discoveries in the British fauna. Figures ♂ genitalia of *Cosymbia quercimontaria* and *C. punctaria*. [P.B.]
- Muñoz, Fernando de Zayas, & Pastor Alayo Dalmau, "La familia Sphingidae en Cuba (Lepidoptera: Heterocera). *Publ. Univ. de Oriente*. no.40: 85 pp., 16 pls., 1 col. fig. 1956. Lists the 59 recorded species, with synonymy, brief descriptions, known food-plants, and distribution; 58 spp. figured. [P.B.]
- Murray, Desmond, "The genitalia of some South African lycanids (Lepidoptera: Lycanidae)." *Journ. Ent. Soc. So. Afr.*, vol.10: pp.182-192, 2 pls., 2 figs. 31 March 1948. Briefly describes and figures ♂ genitalia of 45 spp. of *Iolais*, *Lachnocnema*, *Lycæna*, *Teriomima*, *Durbanina*, *Alæna*, *Pentila*, *Chlorosela*, *Spindasis*, *Dendorix* (sic!), *Axiocerces*, *Capy*, *Myrina*, *Hippolycaena*, *Leptomyrina*, *Aphaneus* (sic!), *Stugeta*, *Thestor*. Localities of specimens given. Notes on a few other spp., not available or doubtfully distinct. [P.B.]
- Obraztsov, N., "*Laspeyresia interruptana* (HS.) als selbständige Art (Lep. Tortr.)" [in German]. *Ent. Tidskr.*, vol.73: pp.33-37, 5 figs. 10 May 1952. Redescribes species and distinguishes it from *L. duplicana* and *L. illutana*. [P.B.]
- Orfila, Ricardo N., "Lepidópteros de Venezuela, nuevos o poco conocidos. — 1ª nota" [in Spanish]. *Bol. Ent. Venezol.*, vol.9: pp.45-49, 6 figs., 1 map. 1950. Describes as new *Evonyma norica lichyi* (Caracas); gives distribution of the 3 ssp. of this butterfly. [P.B.]
- Orfila, Ricardo N., "Notas sobre Lithosiidae (Lepid.) I. El género *Eudesmia* Hb. y un genero y especie nuevos" in Spanish. *Physis*, vol.20: pp.474-486, 2 figs. 1953. Describes as new *VIANANIA* (type *Cistbene argentinensis*); *V. aymara* (Cochabamba, Bolivia). Redescribes *Eudesmia* and spp. assigned to it and to *Vianania*. [P.B.]
- Orfila, Ricardo N., "Una nueva especie de *Apatelodes* (Lep. Eupteropt. [sic!])" [in Spanish]. *Natura*, Buenos Aires, vol.1: pp. 131-134, 3 figs. 1955. Describes as new *A. gaitotini* (Leandro N. Alem, Misiones, Argentina). [P.B.]
- Osthelder, Ludwig, *Die Schmetterlinge Südbayerns und der angrenzenden nördlichen Kalkalpen. II. Teil. Die Kleinschmetterlinge. 2. Heft. Glyphipterygidae bis Micropterygidae*. pp. 115-250, 3 figs. München, 1951. Describes as new: (*Gelechiidae*) *Gelechia danieli* (Ammergau Alps); (*Tineidae*) *Tinea submontana* (Kochel); figures ♂ genitalia. Annotated list. [See review in *Lepid. News*, vol.10: p.56]. [P.B.]
- Pactl, Jiří, "A propos de la nomenclature de deux genres de Microlépidoptères nuisibles aux essences forestières" [in French]. *Rev. franç. Lépid.*, vol.13: p.127. "Sept./Oct." [28 Dec.] 1951. Proposes *KENNELIOLA* n.n. for *Crobylophora* Kennel (Tortricidae); *EUCEDESTIS* n.g. (type *Cedestis gysselinella*) (Yponomeutidae). [P.B.]
- Pactl, Jiří, "A comment on the proposed solution of the *niobe/cydispe/adippe* problem (Class Insecta, Order Lepidoptera)." *Bull. Zool. Nomencl.*, vol.9: p.131. 30 Dec. 1952. Opposed to conservation of *adippe*; regards *phryxa* as the correct name for the High Brown Fritillary. [P.B.]
- Pactl, Jiří, "Dr. John G. Franclemont's proposal for the use of the Plenary Powers to suppress the generic name *Phalæna* Linnæus, 1758, and to validate, as from 1758, the terms employed by Linnæus for groups of that genus (Class Insecta, Order Lepidoptera): proposed addition of *Phalæna* Linnæus, 1758, to the *Official List of Generic Names in Zoology*." *Bull. Zool. Nomencl.*, vol.9: pp.147-148. 30 Dec. 1952. Regards Franclemont's proposal as unnecessary for most of the names involved, as these are generally accepted as valid from 1775, with the same types; requests have already been made to validate the doubtful cases (*Bombyx* and *Pyralis*) from the latter date. Regards type of *Phalæna* as different from type of *Noctua*. [P.B.]

- Pactl, Jiří, "Proposed use of the Plenary Powers to designate a type species for *Sphinx* Linnæus, 1758 (Class Insecta, Order Lepidoptera) in harmony with accustomed usage." *Bull. Zool. Nomencl.*, vol.6: p.291. 29 Aug. 1952. Suggests designation of *ligustri* as type and rejection of Latreille's designation of *euphorbiæ*. [P.B.]
- Pactl, Jiří, "Proposed use of the Plenary Powers to designate for *Bombyx* Fabricius, 1775 (Class Insecta, Order Lepidoptera) a type species in harmony with current nomenclatorial usage." *Bull. Zool. Nomencl.*, vol.6: pp.313-314. 29 Aug. 1952. Suggests designation of *mori* as type. [P.B.]
- Pactl, Jiří, "Proposed use of the Plenary Powers to designate for *Pyrallis* Fabricius, 1775 (Class Insecta, Order Lepidoptera) a type species in harmony with current nomenclatorial usage." *Bull. Zool. Nomencl.*, vol.6: pp.314-315. 29 Aug. 1952. Suggests designation of *farinalis* as type. [P.B.]
- Pactl, Jiří, "Proposed use of the Plenary Powers to vary the type species of *Episema* Ochsenheimer, 1816, therapy maintain *Diloba* Boisduval, 1840, for use in its accustomed sense (Class Insecta, Order Lepidoptera)." *Bull. Zool. Nomencl.*, vol.6: pp.315-317. 29 Aug. 1952. Proposed designation of *glauca* as type for *Episema* and *cæruleocephala* as type for *Diloba*. [P.B.]
- Pactl, Jiří, "Proposed use of the Plenary Powers to validate the generic name *Melanargia* Meigen, 1828 (Class Insecta, Order Lepidoptera), by suppressing the name *Agapetes* Billberg, 1820." *Bull. Zool. Nomencl.*, vol.9: pp.211-222. 11 May 1954.
- Pactl, Jiří, & Jiří Šmelhaus, "Revision of the Hesperiidæ occurring in Czechoslovakia" [in Slovak, English summary]. *Prir. Sborník*, vol.3: pp.201-221, 8 figs. 1948. All species known from Czechoslovakia are given. The paper has an appendix in English (pp.218-220): Arguments against the acceptance of the *Systematisches Verzeichnis* names. The names published by Denis & Schiffermüller 1775 are discussed. [J.M.]
- dos Passos, Cyril F., "On the proposal that the trivial name *ajax* Linnæus, 1758 (as published in the binominal combination *Papilio ajax*) should be suppressed by the International Commission on Zoological Nomenclature under its Plenary Powers." *Bull. Zool. Nomencl.*, vol.2: pp.349-350. 28 Sept. 1951.
- dos Passos, Cyril F., "Application to the International Commission on Zoological Nomenclature to reconsider and rephrase in part their decision suspending the *Règles* concerning *Papilio plexippus* Linnæus, 1758, insofar as that decision refers to a figure in Holland's *Butterfly Book*." *Bull. Zool. Nomencl.*, vol.6: pp.278-283. 23 July 1952.
- dos Passos, Cyril F., "In support of the application to suspend the Rules to (a) validate seven generic names of Linnæus as of 1758, and designate their type species (b) suppress the generic name *Phalæna* Linnæus, 1758, give preference to its typical subgenus *Noctua*, declare *Noctuidæ* the correct name for the family, and (c) validate one generic name of Linnæus as of 1767 and designate its type species (Class Insecta, Order Lepidoptera)." *Bull. Zool. Nomencl.*, vol.9: pp.153-154. 30 Dec. 1952.
- dos Passos, Cyril F., & Ernest L. Bell, "Request for a ruling as to the specimen to be accepted as the lectotype of *Megathymus aryxna* Dyar, 1905 (Class Insecta, Order Lepidoptera)." *Bull. Zool. Nomencl.*, vol.11: pp.289-294. 30 Dec. 1955. Authors believe lectotype should be a specimen figured as *M. neumoegei* in *Biol. Centrali-Americana*; this would cause *aryxna* to fall to *neumoegei*. [P.B.]
- Pennington, K. M., "Two new species of Lycenidæ (Lepidoptera, Rhopalocera) from South Africa." *Journ. Ent. Soc. So. Afr.*, vol.10: pp.164-169, 1 pl. 31 March 1948. Describes as new *Cupido* (*Lepidochrysops*) *swanepoeli* (Sheba Mine, Barberton Distr., Transvaal); *Deudorix vansonii* (Hluhluwe, Zululand). [P.B.]
- Povolny, D., & J. Moucha, "Beitrag zur Kenntnis der Gattung *Psodos* Tr. in den Karpaten (Lepidoptera — Geometridæ)" [in German]. *Ent. Nachrbl.*, vol.7: pp.1-4, 2 figs. March 1955. Notes on Carpathian distribution of 6 spp. (4 with endemic spp.). Figures ♂ genitalia of *P. noricana carpathica* & *P. bentelii*. [P.B.]
- Povolny, Dalibor, & Josef Nosek, "On the phylogenetic relations in the Bistoninæ (Geometridæ), with special regard to *Pæcilopsis*." *Lepid. News*, vol.9: pp.199-202, 9 figs. 16 April 1956.
- Rabello, Ernesto Xavier, "Contribuição para o conhecimento dos Ctenuchidæ. VI. Gênero *Tipulodes* Boisduval, 1830 (Lepidoptera)" [in Portuguese, English abstract]. *Arg. Mus. Nac. Rio de Janeiro*, vol.42: pp.469-476, 3 pls. 1955. Redescribes generotype, *T. ima*, and repeats description of *T. rubriceps*. [P.B.]
- Roepke, W., "*Delias* in Nieuw-Guinea (Lep.)" [in Dutch]. *Ent. Berichten*, vol.15: p.495. 1 Oct. 1955.
- Roepke, W., "Notes and descriptions of Cossidæ from New Guinea (Lepidoptera: Heterocera)." *Trans. Roy. Ent. Soc. London*, vol.107: pp.281-288, 2 pls. 6 Dec. 1955. Describes as new: *Xyleutes mineus pallescens* (Hollandia), *X. cinerosa* (Humboldt Bay),

- X. jordani* (Cyclops Mts.), *X. papuana* (Ampas), *X. elegans* (Mook Camp), *X. albicans* (Biak), *X. perdrax* (Ampas); *Dudgeonea nummata* (Hollandia); also one 'form'. Proposes *turneri* n.n. for *Xyleutes leucolopha* Turner nec Guérin. Revisional notes and redesignations of other *Xyleutes* and of *Zeuzera* spp. [P.B.]
- Slabý, Otto, "Ueber die Herkunft des Apollofalters (*Parnassius apollo* L.) in den Slowakischen Karpatengebirgen" [in Czech, Russian & German summaries]. *Biológia*. Bratislava, vol.9: pp.398-411. 1954. Discusses the phylogeny of *P. apollo* from Western Carpathians with remarks on the study by Issekutz, 1951. [J.M.]
- Slabý, Otto, "*Parnassius apollo* L. im Pieninengebiet" [in Czech, Russian & German summaries]. *Biológia*, Bratislava, vol.10: pp.179-188. 1955. Describes as new *P. a. frankenbergeri* (Pieniny Mts., Slovakia). Without figures. [J.M.]
- Stallings, Don B., & J. R. Turner, "On the question of the lectotype of *Megathymus aryxna* Dyar, 1905." *Bull. Zool. Nomencl.*, vol.11: pp.295-296. 30 Dec. 1955. Authors believe holotype should be a specimen in the U. S. National Museum labelled by Dyar as a cotype; this would retain *aryxna* for a species distinct from *M. neumoegei*. [P.B.]
- Stallings, Don B., & J. R. Turner, "Notes on *Megathymus ursus*, with description of a related new species (Megathymidae)." *Lepid. News*, vol.10: pp.1-8, 2 pls. 10 Aug. 1956. Describes as new *M. violæ* (Carlsbad Caverns National Park, N. Mex.).
- Swensson, Ingvar, "*Swammerdamia lapponica* Petersen i Sverige (Lep.)" [in Swedish, German summary]. *Ent. Tidskr.*, vol.75: pp.204-207, 1 fig. 30 Dec. 1954. Describes previously unknown ♀ of this species, new to Sweden; compares moth with *S. conspersella* & *S. compunctella*. [P.B.]
- Swanepoel, D. A., "A new species of *Cupido* (Lycænidae) from the Eastern Transvaal." *Journ. Ent. Soc. S. Africa*, vol.10: pp.193-195, 4 figs. 31 March 1948. Describes as new *C. (Lepidochrysops) irvingi* (Nelshoogte, Barberton, Transvaal). [P.B.]
- Travassos, Lauro, "Contribuição ao conhecimento dos Arctiidae XXXI. Sobre as espécies do gênero *Phegoptera* (Lepidoptera, Heterocera)" [in Portuguese]. *Arq. Mus. Nac. Rio de Janeiro*, vol.42: pp.621-643, 12 pls. 1955. Describes as new *P. pseudocatenata* (Salesopolis, S. Paulo, Brazil); *P. fusca* (Terezópolis, Est. do Rio, Brazil); *P. albescens* (Campos do Jordao, S. Paulo, Brazil); *P. pulchra* (Salesopolis); *P. diplopi* (Salesopolis). Proposes *P. drucei* n.n. for *superba* Druce 1911. Redescribes genus and available spp. [P.B.]
- Travassos F., Lauro, "MIRANDISCA, novo gênero para *Cosmosoma harpalyce* Schaus, 1892, com descrição do allotypus" [in Portuguese; English summary]. *Arq. Mus. Nac. Rio de Janeiro*, vol.42: pp.669-674, 3 pls. 1955. Proposes new genus and describes allotype of *M. harpalyce*. [P.B.]
- Viette, Pierre E. L., "Contribution à l'étude des Hepialidae (31ème note). Sur quelques spécimens du Tring Museum" [in French]. *Trans. Roy. Ent. Soc. London*, vol.107: pp.373-379, 6 figs. 6 Dec. 1955. Describes as new *Eudalaca jordani* (Mt. Moco, Luim-bale, Angola); *Gorgopsis libania angolensis* (Mt. Moco); *Paragorgopsis nigrovenosalis* (Aqua Suja, Minas Geraes, Brazil), *P. spitzi* (Ypiranga, São Paulo, Brazil), *P. jordani* (Theophilo Ottoni, San Jacintho Valley, Minas Geraes); *Xytraps pluriargenteus* (Alto da Serra, São Paulo); *Schaefferiana simplex* (Theophilo Ottoni). Figures ♂ genitalia of new spp. [P.B.]
- Viette, P., "Note de nomenclature: sur deux genres de Ch. Oberthür" [in French]. *Lambillionea*, vol.55: p.97. 25 Dec. 1955. A new name, *BOISDUVALODES*, is proposed for *Perrotia* Oberthür, 1922 (Zygænidæ), preoccupied by *Perrotia* Oberthür, 1916 (Hesperiidae). [P.V.]
- Viette, P., "Un nouveau cosside de Madagascar" [in French]. *Lambillionea*, vol.55: pp.98-99, 1 fig. 25 Dec. 1955. Describes as new *Pseudocossus boisduvalii* (central Madagascar) (Cossidae). [P.V.]
- Viette, P., "Position systématique et appareil stridulant de *Pemphigostola synemonistis* Strand, de Madagascar (Lep. Noctuidæ)" [in French]. *Bull. Soc. Ent. France*, vol.60: pp.176-179, 5 figs. 10 Feb. 1956. *P. synemonistis*, described as a castniid, is, in fact, a noctuid (Agaristinae). The stridulating organ, on the mesothoracic legs and anterior wing, is described. [P.V.]
- Vine Hall, J. H., "The British races of *Aricia agestis* Schiff. (Lep: Lycænidae)" *Ent. Gaz.*, vol.5: pp.3-8. 18 March 1954. Suggests that the supposed hybrid population between *A. a. agestis* and *A. a. artaxerxes* is a southern race of the latter, which is believed to be a relict, unlike the recent southern immigrant *agestis*. [P.B.]
- Warren, B. C. S., "A review of the classification of the subfamily Argynniinae (Lepidoptera: Nymphalidae). Part 2. Definition of the Asiatic genera." *Trans. Roy. Ent. Soc. London*, vol.107: pp.381-392, 4 pls. 6 Dec. 1955. Lists 13 genera in subfamily, defines *Childrena*, *Damora*, and *Argyreus*, and emends definition of *Argyronome* and *Argynnis*. Lists

- included spp. (except in *Speyeria*) and discusses genitalic variation. 39 photos of ♂ genitalia. [P.B.]
- Wightman, A. J., "*Nonagria neurica* Hb. fig.381 (*nec* fig.659-661) (*edelsteinii* Tutt)."
Ent. Gaz., vol.2: pp.243-246, 1 pl. Oct. 1951. Discusses nomenclatorial history, describes early stages; adult figured in color [P.B.]
- Wightman, A. J., "*Aporophylla lutulenta* Schiffermueller, 1775 and *A. lunebergensis* Freyer, 1848 (Lepidoptera: Agrotidae)." *Ent. Gaz.*, vol.6: pp.217-223. Oct. 1954. Taxonomic history, distinction between supposed spp., and summary of named forms. [P.B.]
- Wolff, Niels L., "Notes on the synonymy of some Tortricina (Lep.)." *Ent. Tidskr.*, vol.73: pp.53-64, 2 figs. 10 May 1952. Sinks *Tortrix ulmana* to *Olindia schumacherana*; *T. lithargyrana* and *Peronea fissurana* to *Acleris tripunctulana*; *Grapholitha æmulana* to *Eucosma latiorana*; *Pæcilochroma pomedoxana* to *Argyroplote porphyrana*. Maintains that *pascuana* is the correct spelling for *Cnephasia pasivana auctt.* Selects lectotype of *Acleris ferrugana*. Paper based on study of types in the British Museum, Copenhagen Museum, and Hungarian Museum collections. [P.B.]

F. BIOLOGY AND IMMATURE STAGES

- Foltin, Hans, "Etwas über das Aufsuchen der Psychiden-Säcke" [in German]. *Zeits. Wiener Ent. Ges.*, vol. 38: pp. 7-12. 1 March 1953. Directions for finding larval cases of Psychidae; describes appearance of cases of 13 spp., with biological notes. [P. B.]
- Foucart, G., "Le sphinx du quinquina *Celerio nerii* L." [in French]. *Bull. Agric. Congo Belge*, vol. 45: (*Bull. Inform. INEAC*, vol.3): pp.111-122, 1 fig. April 1954. Biology and control; describes all stages. [P. B.]
- Franz, Elli, "Das zierliche Puppengespinst der Motte *Trichostibas*" [in German]. *Natur und Volk*, vol. 85: pp. 115-118, 2 pls. 1 April 1955. Describes and figures network cocoon of this hyponomeutid from South America. [P. B.]
- Franz, Jost M., "Observations on collecting parasites of *Caccæcia bistrionana* (Froel.) (Lep., Tortricidae)." *Bull. Ent. Res.*, vol. 43: pp. 1-19, 3 pls., 2 figs. March 1952. Biology of host; list of hymenopterous parasites, and discussion of parasitism in different stages; biology of dominant parasite, with its alternate hosts. [P. B.]
- Franz, J., "Schlupfwespen als Helfer bei der Schädlingbekämpfung" [in German]. *Natur und Volk*, vol. 80: pp. 271-275, 1 pl., 4 figs. 15 Oct. 1952. Parasitization of caterpillars by chalcids and braconids. [P. B.]
- Freeman, John A., "Insect menace to stored products." *New Biology*, no. 4: pp. 48-73, 9 pls. 1948. Popular account, referring to *Ephestia*, *Plodia*, *Sitotroga*, etc. [P. B.]
- Freeman, J. A., "The inter-relation of insect attack on stored food and wood." *Trans. 9th Int. Congr. Ent.*, vol. 1: pp. 710-722, 1 fig. March 1953.
- Froeschner, Richard C., "Observations of predators of European Corn Borer eggs." *Proc. Iowa Acad. Sci.*, vol. 57: pp. 445-448. 1950.
- Frost, S. W., "The numerical relationships between phytophagous insects and their hosts." *Sci. Monthly*, vol. 79: pp. 10-12, 3 figs. July 1954. Points out that Lepidoptera include over 40% of phytophagous insect species; lists nos. of spp. and of phytophagous spp. for principal insect orders. [P. B.]
- Gillogly, G. M. & L. R., "*Trichogramma minutum* in Monarch Butterfly eggs." *Pan-Pacific Ent.*, vol. 29: pp. 111-120. 1953. Interesting observations on the parasitism of eggs of the Monarch by this tiny hymenopteron. [J. T.]
- Gomes, Jalmírez G., "Resposta olfativa nas relações entre hospedeiros e parasitos" [in Portuguese]. *Bol. Fitossanit.*, vol. 3: pp. 1-6. "1946" [1947]. Summary of information on olfactory recognition of hosts by parasites, mainly of Lepidoptera. [P. B.]
- Gonçalves, Cincinato R., "Males da carnaúba no Ceará e no Piauí" [in Portuguese]. *Bol. Fitossanit.*, vol. 3: pp. 145-170, 33 figs. "1946" [1947]. Insects attacking the palm *Copernicia cerifera*: records *Brassolis sophoræ*, *Opsiphanes inviræ*, *Sibine* sp., *Castnia* sp., and undetermined larvæ of Eucleidae and Arctiidae; describes and figures early stages of *Castnia* sp. [P. B.]
- Hering, E. M., "Probleme der Xenophobie und Xenophilie bei der Wirtswahl polyphagen Insekten" [in German]. *Trans. 9th Int. Congr. Ent.*, vol. 1: pp. 507-513, 1 fig. March 1953. Suggests new terms with regard to biology of phytophagous insects: "xenophoby" and "xenophily", illustrated with leaf-mining Microlepidoptera and Diptera. [A.D.]
- Langridge, D. F., "Wax moths in beehives." *Journ. Dept. Agric. Victoria*, vol. 50:

- pp. 545-548, 554, 5 figs. Dec. 1952. Biology and control of *Galleria* and *Achroia*. [P.B.]
- Petrova, N. A., "The oak measuring worm, a pest in forests of the Azerbaijan SSR" [in Russian]. *Lesnoe Khoziaistvo*, vol. 6, no. 4: p. 52. Apr. 1953. [Not seen.]
- Rose, A. H., & J. R. Blais, "A relation between April and May temperatures and spruce budworm larval emergence." *Canad. Ent.*, vol.86: pp.174-177, 1 fig. 28 May 1954. Warm temperatures cause *Choristoneura fumiferana* larvæ to emerge earlier. [E.M.]
- Ross, D. A., "Key to the puparia of the dipterous parasites of *Choristoneura fumiferana* Clem." *Canad. Ent.*, vol.84: pp.108-112, 15 fig. 9 May 1955. Keys and figures 15 spp. [E.M.]
- Schätz, Willi, "Beitrag zur Kenntnis über *Epichn. pulla* Esp. (Lep. Psych.)" [in German]. *Nachrbl. Bayer. Ent.*, vol.3: pp.77-79, 86-89. 15 Aug., 15 Sept. 1954. Discusses the biology and redescribes moth and immature stages. [N.O.]
- Schultz, V. G. M., "Neue Beiträge zur Schmetterlingskunde. 21. Wie finden sich die Männchen und Weibchen unserer Schmetterlinge? 22. Protogynie bei einer *Acalla bastiana* L.-Zucht. 23. Aus der Lebensgeschichte des Holunderzünslers *Pyrusta sambucalis* Schiff. 24. Beobachtungen, die mit den Angaben in der Literatur nicht übereinstimmen" [in German]. *Ber. naturwiss. Ver. Bielefeld*, vol.12: pp.30-52, 53-56, 57-60, 1 pl., 3 figs. 1952. [Not seen.]
- Snyder, Karl., "The effect of temperature and food on the development of the variegated cutworm *Peridroma margaritosa* Haw. (order Lepidoptera, family Noctuidæ)." *Ann. Ent. Soc. Amer.*, vol.47: pp.603-613, 3 figs. "Dec. 1954" [18 Feb. 1955].
- Somov, I., "Dynamics of seasonal increase of bollworm" [in Russian]. *Khlopkovodstvo*, vol.4, no.7: pp.60-64. July 1954. *Heliothis armigera*. [Not seen.]
- Stark, R. W., "Distribution and life history of the Lodgepole needle miner (*Recurvaria* sp.) (Lepidoptera: Gelechiidae) in Canadian Rocky Mountain parks." *Canad. Ent.*, vol.86: pp.1-12, 15 figs. 29 Jan. 1954. Discusses history and extent of recent outbreaks, describes moth and its behavior, morphology and seasonal cycle of early stages, and effects of environmental factors on development. States 15 spp. of parasites are known from Canadian populations, lists 5. [E.M.]
- Stultz, H. T., "Note on occurrence of *Agathis laticinctus* (Cress.) (Hymenoptera: Braconidae) as a parasite of the Eye-Spotted Bud Moth (Lepidoptera: Tortricidae) in Nova Scotia." *Canad. Ent.*, vol.86: pp.96-98. 10 March 1954. This parasite has recently increased greatly in incidence in *Spilonota ocellana*, probably as a result of change in spray practices. [E.M.]
- Swezey, Otto H., "Forest entomology in Hawaii." *Spec. Publ. Bishop Mus.*, no.44: 266 pp., 32 figs. 2 Aug. 1954. List of insects attacking some 105 kinds of forest trees, with their distribution in the islands and some biological notes. The insects are listed only under host plants. [P.B.]
- Tanada, Yoshinori, "A polyhedrosis virus of the imported cabbageworm and its relation to a polyhedrosis virus of the alfalfa caterpillar." *Ann. Ent. Soc. Amer.*, vol.47: pp. 553-574, 2 figs. "Dec. 1954" [18 Feb. 1955.] Virus disease of *Pieris rapæ*, apparently identical with one of *Colias eurytheme*. [P.B.]
- Thompson, W. R., "Note on *Dichætoneura leucoptera* Johns. (Diptera, Tachinidae)." *Canad. Ent.*, vol.85: pp.391-392, 1 fig. 21 Oct. 1953. Notes occurrence of 1st stage larvæ in hind gut of *Depressaria heracliiana* and *Archips cerasivorana*. [E.M.]
- Thompson, W. R., "The tachinid parasites of *Archips cerasivorana* Fitch. (1) *Dichætoneura leucoptera* Johns. (Diptera)." *Canad. Ent.*, vol.85: pp.19-30, 20 figs. 30 Jan. 1953. Describes and figures early stages and adults of this parasite, and discusses its habits and relationships. [E.M.]
- Thompson, W. R., "The tachinid parasites of *Archips cerasivorana* Fitch. (2) *Eusisyropha blanda* O. S. (Diptera)." *Canad. Ent.*, vol.85: pp.393-404, 19 figs. 4 Dec. 1953. Discusses early stages, reproductive system, biology, and systematic relationships of *E. blanda*. [E.M.]
- Thorsteinson, A. J., "The role of host selection in the ecology of phytophagous insects." *Canad. Ent.*, vol.85: pp.276-282. 16 Sept. 1953. Notes discrepancies between results of laboratory and field studies. Distinguishes host selection through oviposition response from that depending on feeding response. Notes steps in acceptance or rejection. Classifies host plants into unsuitable, attractive, and acceptable groups; notes 6 subgroups of acceptable plants, all with characteristics that inhibit successful feeding! Classifies phytophagous insects into polyphagous, oligophagous, and monophagous. Rejects Dethier's concept of chemical monophagy. Briefly discusses roles of food and temperature in modifying host selection. A mainly classificatory paper with few concrete examples. [E.M.]

- Treat, Asher E., "A new gamasid (Acarina: Mesostigmata) inhabiting the tympanic organs of phalænid moths." *Journ. Parasitol.*, vol.40: pp.619-631, 4 pls., 2 figs. Dec. 1954. *Myrmonyssus phalænodectes* n.sp. described and recorded from *Leucania, Pseudaletia*, and 16 other genera of noctuids, in Massachusetts; the mite destroys the organs of hearing. [P.B.]
- Tripp, Howard A., "Description and habits of the spruce seedworm, (*Laspeyresia youngana* (Kft.) (Lepidoptera: Olethreutidæ)." *Canad. Ent.*, vol.86: pp.385-402, 17 figs. 22 Oct. 1954. Records hosts and distribution; describes and figures adult, last-instar larva, and pupa; outlines life cycle; describes larval habits and behavior of pupæ. [E.M.]
- Turnock, W. J., "Some aspects of the life history and ecology of the pitch nodule maker, *Petrova albicapitana* (Busck) (Lepidoptera-Olethreutidæ)." *Canad. Ent.*, vol. 85: pp.233-243, 6 figs. 23 July 1953. Discusses history and distribution in North America of this introduced insect; describes life cycle and injury to host, roles of species susceptibility, and of age, size, and isolation of trees in determining incidence and damage; and analyzes factors in natural control, of which maturation of trees is considered to be the most important. 11 hymenopterous and 1 dipterous parasites are reported. [E.M.]
- Walley, G. Stuart, "Hymenopterous parasites of *Choristoneura pinus* Free. (Lepidoptera: Tortricidæ) in Canada." *Canad. Ent.*, vol.85: p.152. 15 April 1953. Records 13 spp., 9 of which are previously recorded parasites of *C. fumiferana*. [E.M.]
- Walley, G. Stuart, "Notes on *Acrobasis rubifasciella* Pack. (Lepidoptera: Phycitidæ), with a list of its parasites." *Canad. Ent.*, vol.86: pp.255-260. 10 June 1954. Describes life cycle in Ottawa region, and lists 18 spp. of hymenopterous parasites, of the families Braconidæ, Ichneumonidæ, Perilampidæ, and Pteromalidæ. [E.M.]
- Weidner, Herbert, *Bestimmungstabellen der Vorratsschädlinge und des Hausungeziefers Mitteleuropas*. 2nd ed. 234 pp., 272 figs. Jena: Gustav-Fischer-Verlag. 1953. [Not seen.]
- Wellington, W. G., "Atmospheric circulation processes and insect ecology." *Canad. Ent.*, vol.86: pp.312-333, 9 figs. 20 Aug. 1954. A fundamental paper; reviews principal air-mass types in North America; notes association of frontal movements with insect migrations and transport; discusses the value of air-mass climatology in interpreting insect mortality; describes systematic trends in cyclonic and anticyclonic centre tracks, and their possible uses in population studies. The possibility of using meteorological information to predict insect population trends is noted; the complexities inherent in such forecasts are emphasized. [E.M.]
- Wood, G. W., et al., "Life-history studies of *Spælotis clandestina* (Harr.) and *Polia purpurissata* (Grt.) (Lepidoptera: Phalænidæ) in low-bush blueberry areas in New Brunswick." *Canad. Ent.*, vol.86: pp.169-173. 28 May 1954. Seasonal cycles of these single-brooded moths are outlined. [E.M.]
- Wyatt, G. R., "The nucleic acids of some insect viruses." *Journ. Gen. Physiol.*, vol.36: pp.201-205. 20 Nov. 1952. Study of viruses from 9 spp. of Lepidoptera. [P. B.]
- Zopp, Johannes, "Die ersten Stände von *Automeris (Hyperchiria) naranja* Schaus (= *aurantica* Weym., nec *umbrosa* Weym. et *ater* Conte)" [in German]. *Zeits. Weiner Ent. Ges.*, vol.38: pp.245-247, 1 pl. 15 Sept. 1953. Immature stages and biology. [N.O.]

G. PHYSIOLOGY AND BEHAVIOR

- Ackermann, D., "Über biogene Amine der Seidenraupe" [in German]. *Hoppe-Zeyl. Zeits.*, vol.291: pp.169-176. 24 Nov. 1952. Amino-acids in larva of *Bombyx mori*. [P.B.]
- Allegret, Paul, "Variations individuelles des facteurs d'excrétion protidique avant la mue nymphale chez *Galleria mellonella* (L.)" [in French]. *C. R. Acad. Sci. Paris*, vol.238: pp.518-520, 1 fig. 1954. Pre-pupal nitrogenous excretion may take place entirely as silk, or with assistance of Malpighian tubules; in the latter case a prepupal diapause is necessary. [P.B.]
- Allegret, Paul, "Influence de la rétention expérimentale de la soie sur la métamorphose de *Galleria mellonella* (L.)" [in French]. *C. R. Acad. Sci. Paris*, vol.238: pp.623-625. 1954. If nitrogenous secretion by silk production is prevented by blocking gland duct, Malpighian tubules take over this function. [P.B.]
- Arsen'ev, A. F., & N. V. Bromlei, "Chemical composition and buffer capacity of the intestinal juice of the larvæ of the Oak and Mulberry Silkworms" [in Russian]. *Dokl. Vses. Akad. Nauk im. Lenina*, vol.16: pp.25-31. 1951. [Not seen.]
- Aruga, H., S. Kawase, & M. Akino, "Occurrence of an enzyme acting on xanthopterin-B in *Bombyx mori*" [in English, French summary]. *Experientia*, vol.10: pp.336-338, 1 fig. 15 Aug. 1954.

- Arvy, L., "Données histologiques sur la leucopoièse chez quelques Lépidoptères" [in French]. *Bull. Soc. Zool. France*, vol.78: pp.45-59, 1 pl., 4 figs. 1953. The study of the different stages of five spp. (*Malacosoma neustria*, *Ephestia kühniella*, *Hyponomeuta padella*, *Thaumetopœa processionea*, *Bombyx mori*) shows the presence of leucopoietical, even, and symmetrical organs situated at the level of the mesothorax, metathorax, and the first 4 abdominal segments. These leucopoietical organs are found only in the larvæ, they disappear at the beginning of the pupal stage and are not found in the imago. In these spp. the blood is almost without leucocytes. [P.V.]
- Babayan, A. S., & Mkrtumian, K. L., "The influence of host plants upon the development of *Agrotis ypsilon* Rott. and *Laphygma exigua* Hb." [in Russian]. *Izv. Biol. Sel'sk. Nauk Akad. Nauk Armianskii SSR*, vol.3: pp.491-494. 1950. [Not seen.]
- Barsa, Mary C., "The behaviour of isolated hearts of the grasshopper, *Chortophaga viridifasciata*, and the moth, *Samia walkeri*, in solutions with different concentrations of sodium, potassium, calcium, and magnesium." *Journ. Gen. Physiol.*, vol.38: pp.79-92. 20 Sept. 1954.
- Beall, Geoffrey, "Congregation of butterflies at hilltops." *Lepid. News*, vol.7: pp.43-44. 27 July 1953.
- Beck, Stanley D., "Nutrition of the European Corn Borer, *Pyrausta nubilalis* (Hbn.). III. An unidentified dietary factor required for larval growth." *Journ. Gen. Physiol.*, vol.36: pp.317-325, 1 fig. 20 Jan. 1953.
- Bergmüller, H., "Zur Zucht von *Macrothylacia rubi*" [in German]. *Nachrbl. Bayer. Ent.*, vol.2: p.87. 15 Nov. 1953. Observations in a breeding cage. [N.O.]
- Bergold, G. H., "Demonstration of the polyhedral virus in blood cells of silkworms." *Biochem. Biophys. Acta*, vol.8: pp.397-400, 4 figs. Apr. 1952.
- Bernheimer, Alan W., "Hemagglutinins in caterpillar bloods." *Science*, vol.118: pp.150-151. 8 Feb. 1952. Tests for hemagglutinins acting on human blood, in 46 spp. of caterpillars of 17 families; positive results in 10 spp. (all moths). [P.B.]
- Bernheimer, Alan W., Ernst Caspari, & Armin Dale Kaiser, "Studies on antibody formation in caterpillars." *Journ. Exper. Zool.*, vol.119: pp.23-35, 1 fig. Feb. 1952. Experiments on *Platysamia cecropia* and *Citheronia regalis* indicate that insects do not form antibodies of the vertebrate type in response to the antigens used; this accounts for the free development of transplants in hosts of other species. [P.B.]
- Bheemeswar, B., & M. Sreenivasaya, "Enzyme systems of the silk-worm, *Bombyx mori* Linn.: Part I—a preliminary study." *Journ. Sci. Indust. Res.*, vol.13B: pp.108-110. Feb. 1954.
- Biliotti, Émile, "Importance et signification des arrêts de développement au stade nymphal chez *Thaumetopœa processionea* L." [in French]. *C. R. Acad. Sci.*, vol.236: pp.1703-1705. 1953. Delayed eclosion in variable percentage of pupæ. [P.B.]
- Bodenheimer, F. S., "Arrested development and arrested activity in insect life." *Trans. 9th Int. Congr. Ent.*, vol.1: pp.21-40. March 1953. An essay on various aspects of diapause in insects. [A.D.]
- Boistel, J., & E. Caraboeuf, "L'activité électrique dans l'antenne isolée de lépidoptère au cours de l'étude de l'olfaction" [in French]. *C. R. Soc. Biol.*, vol.147: pp.1172-1175. 1 fig. July 1953. Reports spontaneous electrical impulses in the isolated antenna of *Bombyx mori* ♂; these are modified by a jet of air on the antennæ, but not by its exposure to the female scent. [P.B.]
- Bounhiol, Jean-Jacques, "L'achèvement de la métamorphose et la mue imaginale seraient commandés par le cerveau à la fin de la vie larvaire chez *Bombyx mori* L." [in French]. *C. R. Acad. Sci. Paris*, vol.235: pp.671-672. 1952. Formation of pupal and imaginal stages initiated by stimuli from brain at end of larval stage. [P.B.]
- Bounhiol, Jean-Jacques, "Nature probablement sécrétoire du facteur cérébral conditionnant la mue imaginale de *Bombyx mori* L." [in French]. *C. R. Acad. Sci. Paris*, vol.235: pp.747-748. 1952. Demonstrates that action of brain in controlling imaginal molt is secretory rather than nervous. [P.B.]
- Bouniol, J.-J., M. Gabe, & L. Arvy, "Données histophysiologiques sur la neuro-sécrétion chez *Bombyx mori* L., et sur ses rapports avec les glandes endocrines" [in French]. *Bull. Biol. France Belgique*, vol.87: pp.323-333, 1 pl., 4 figs. 1953. Modifications of the nervous secretion elements that arrive during the last stage of the larva, the nymph, and the imago in *Bombyx mori*. [P.V.]
- Buck, John, Margaret Keister, & H. Specht, "Discontinuous respiration in diapausing *Agapema* pupæ." *Anat. Rec.* vol.177: p.541. Nov. 1953. Abstract only.
- Busnel, R.-G., "La fluorescénine et l'acide folique, perlines de *Bombyx mori* L." [in French]. *Trans. 9th Int. Congr. Ent.*, vol.1: pp.354-358. March 1953. The pterin isolated from eggs and scales of the silkworm is identified as fluorescénine; folic acid

- is formed in eggs and Malpighian tubules. These pigments participate in enzymatic processes. [A.D.]
- Butenandt, A., & Wolfgang Albrecht, "Bestimmungen des Tryptophängehaltes verschiedener Rassen der Mehlmotte *Ephestia kühniella* als Beitrag zur Analyse der Genwirkungen" [in German]. *Zeitschr. Naturforsch.*, vol.7b: pp.287-290. May 1952. Tryptophane content of white-eyed mutant higher than that of wild type, roughly by amount not used in production of eye and other pigments. [P.B.]
- Caspari, E., & H. C. Dalton, "Gene action. Investigations on an enzyme system oxidizing tryptophane to kynurenin." *Yearb. Carnegie Inst.*, vol.48: pp.197-199. 1949. Work with *Ephestia* eye-color mutants. [P.B.]
- Chaudhry, Ghulam-Ullah, "The development and fecundity of the Oriental Fruit Moth, *Grapholitha (Cydia) molesta* (Busck) under controlled temperatures and humidities." *Diss. Abs.*, vol.12: p.118. 1952. Abstract only.
- Chikalo, I. I., "Thermostability of catalase as an index of the resistance of the silkworm to high temperature" [in Russian]. *Dokl. Vses. Akad. Sel'sk. Nauk im. Lenina*, vol.16: pp.30-34. 1951. [Not seen.]
- Ching-Hsi Tao & A. Glenn Richards, "Studies on arthropod cuticle. IX. Quantitative effects of diet, age, temperature and humidity on the cuticle of five representative species of insects." *Ann. Ent. Soc. Amer.*, vol.45: pp.585-599, 3 figs. Dec. 1952. Including *Galleria*.
- Crewther, W. G., & A. B. McQuade, "The intestinal microflora of the clothes moth larva *Tineola bisselliella* in relation to wool digestion." *Journ. Gen. Microbiol.*, vol.12: pp.311-313. April 1955. Concludes that bacteria do not assist wool digestion. [P.B.]
- Danilevskii, A. S., "Conditions of perennial diapause in Lepidoptera" [in Russian]. *Ent. Obozr.*, vol.31: pp.386-392. 1951. [Not seen.]
- Danilevskii, A. S., & E. I. Glinianaia, "Concerning the influence of alternation of dark and light daily periods on the development of insects" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.68: pp.785-788. 1949.
- Danilevskii, A. S., & E. I. Glinianaia, "On the influence of light and temperature rhythms on the breaking of diapause in insects" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.71: pp.963-966. [1950.]
- Day, M. F., "The distribution of alkaline phosphatase in insects." *Australian Journ. Sci. Res. B.*, vol.2: pp.31-41, 3 pls. Feb. 1949. Including *Tineola* and *Pieris*.
- Day, M. F., "The occurrence of mucoid substances in insects." *Australian Journ. Sci. Res. B.*, vol.2: pp.421-427. Nov. 1949. Including *Ephestia*, *Tineola*, *Gnorimoschema*, *Pieris*.
- Day, M. F., "Studies on the digestion of wool by insects. I. Microscopy of digestion of wool by clothes moth larvæ (*Tineola bisselliella* Humm.)." *Australian Journ. Sci. Res. B.*, vol.5: pp.42-48, 2 pls. Feb. 1951.
- Day, M. F., "Studies on the digestion of wool by insects. III. A comparison between the tracheation of the midgut of *Tineola* larvæ and that of other insect tissues." *Australian Journ. Sci. Res. B.*, vol.4: pp.64-74, 2 pls. Feb. 1951.
- Demianovskii, S. IA., & A. Burova, "Pyruvic acid and its amination in the organism of the Oak Silkworm *Antheraea pernyi* G." [in Russian]. *Biokhimiia*, vol.16: pp.29-35. 1951. [Not seen.]
- Demianovskii, S. IA., & IU. B. Filipovich, "Relationship of proteins and amino acids of the hemolymph with the synthesis of silk proteins in the organism of the Oak Silkworm, *Antheraea pernyi* G." [in Russian]. *Biokhimiia*, vol.15: pp.437-443. Sept./Oct. 1950. [Not seen.]
- Demianovskii, S. IA., & A. V. Sokol'skaia, "Formation and decomposition of amino acids in the tissues of the Oak Silkworm, *Antheraea pernyi* G." [in Russian]. *Biokhimiia*, vol.13: pp.273-278. May/June 1948. [Not seen.]
- Demianovskii, S. IA., & E. K. Stakhovskaia, "Effect of glycocholl on larval development and silk formation in the Oak Silkworm, *Antheraea pernyi* G." [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.78: pp.733-736. 1 June 1951.
- Denucé, J. M., "Étude quantitative de l'acide ribonucleique dans les glandes séricigènes chez *Bombyx mori* L." [in French]. *Biochem. Biophys. Acta*, vol.8: p.111. Jan. 1952. Location and function in silk glands. [P.B.]
- Denucé, J. M., "Recherches sur le système phosphatique des glandes séricigènes chez le ver à soie (*Bombyx mori* L.)." [in French, English abstract]. *Experientia*, vol.8: pp.64-65. 15 Feb. 1952. Reports 2 phosphatases in silk glands. [P.B.]
- Dreux, Ph., & J. Fiszer, "Action de baryum sur l'automatisme cardiaque de la chenille de *Galleria mellonella* L. et de *Gryllus domesticus* L." [in French]. *C. R. Soc. Biol.*, vol.144: pp.818-819. June 1950. Ba solution stops heart in diastole; effect counteracted by Ca but not by K. [P.B.]

- Drilhon, Andrée, "Étude du milieu intérieur de *Macrothylacia rubi* L. au cours de la diapause" [in French]. *C. R. Acad. Sci. Paris*, vol.234: pp.1913-1915. 1952. Increase in number of amino-acids in hemolymph during pre-pupal diapause. [P.B.]
- Drilhon, Andrée, Constantin Vago, & René-Guy Busnel, "Essai de diagnostic précoce de la grasserie et de la flacherie par l'analyse chromatographique du sang de *Bombyx mori*" [in French]. *C. R. Soc. Biol.*, vol.146: pp.11-12. 20 May 1952. Infections cannot be identified chromatographically before onset of visible symptoms. [P.B.]
- Drilhon, A., & C. Vago, "Modification dans la figure chromatographique des acides aminés libres et des substances fluorescentes de l'hémolymphe du *Bombyx mori* L., consécutives à une paralysie d'origine microbienne" [in French, German summary]. *Experientia*, vol.9: pp.143-145. 15 April 1953.
- Duckworth, F. W., "Butterflies' tastes." *Country Life*, vol.112: pp.2107-2108. 26 Dec. 1952. Attraction of Indian butterflies by various substances.
- Duspiva, Franz, "Die enzymatische Vorgänge beim Durchbruch des ausschließenden Seidenspinners (*Bombyx mori* L.) durch die Kokonwand" [in German]. *Zeitscht. Naturforsch.*, vol.5b: pp.273-281. 1950. Study of chemistry of silk decomposition which permits emergence of adult from cocoon; fibers are locally digested by oral secretion of moth. [P.B.]
- Dzhaparidze, L. I., "Respiration of the Mulberry Silkworm in connection with its sex" [in Russian]. *Soobsch. Akad. Nauk Gruz. SSR*, vol.11: pp.445-450. 1950. [Not seen.]
- Edel'man, N. M., "Some principles of the daily rhythm of the respiration of insects" [in Russian]. *Zool. Zhurn.*, vol.29: pp.427-434. 1950. [Not seen.]
- Edel'man, N. M., "Effect of feeding conditions on the physiological condition of the Gypsy Moth and poplar leaf-eaters" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.84: pp.849-852. 1 June 1952. *Porthetria dispar*, *Melasma populi*, *M. tremula*.
- Emme, A. M., "Combined action of high and low positive temperatures on the eggs of the Mulberry Silkworm" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.67: pp.747-750. 1949.
- Emme, A. M., "Role of temperature in the duration of embryonic diapause in the Mulberry Silkworm" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.6: pp.589-592, 1 fig. 1949.
- Emme, A. M., "Stimulating effect of oxygen on the cocoon of the silkworm" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.80: pp.141-144, 1 fig. 1951.
- Emme, A. M., "Detailed study of growth variability of the thermo-reactivity of the developing pre-diapause gut" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.82: pp.825-828, 1 fig. 11 Feb. 1952. *Bombyx mori*.
- Emme, A. M., "Sensitivity variation by age in the diapausing embryo of the mulberry silkworm to various combined processes of activation" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.93: pp.209-212. Nov. 1953. [Not seen.]
- Evans, William H., "Flight habits of *Anthracaris*." *Lepid. News*, vol.8: p.10. 25 June 1954.
- Filippovich, I. U. B., "Free amino acids in the hemolymph of the Oak Silkworm" [in Russian]. *Dokl. Vses. Akad. Sel'skokhoz. Nauk im. Lenina*, vol.18, no.9: pp.36-44. 1953. *Antheraea pernyi*. [Not seen.]
- Fiaschenträger, Alexandrien, "Über Anlockungstoffe von Baumvollschädlingen" [in German]. *Angew. Chem.*, vol.61: p.252. 1949. Abstract; sex attractants in female noctuids.
- Fraenkel, G., "The nutritional requirements of insects for known and unknown vitamins." *Trans. 9th Int. Congr. Ent.*, vol.1: pp.277-280. March 1953. Describes ten years dietary experiments with dry food and stored products pests, i. a. the following Lepidoptera: 3 spp. of *Ephestia*, *Plodia*, and *Tineola bisselliella*. Insect require most if not all vitamins of the B-complex (possibly except B₁₂). They do not require A, C, D, K, and P. [A.D.]
- Fraisse, René, "La croissance de la tête chez la larve du *Bombyx mori* L. en fonction du régime alimentaire" [in French]. *C. R. Acad. Sci.*, vol.236: pp.1613-1614. 1953. Final size of head capsule unaffected by diet. [P.B.]
- Frost, S. W., "Response of insects to black and white light." *Journ. Econ. Ent.*, vol.46: pp.376-377. April 1953. Comparison of attractiveness of normal and UV light source to Lepidoptera (various groups) and other insects; no very striking differences found. [P.B.]
- Gabe, M., "Quelques acquisitions récentes sur les glandes endocrines des arthropodes" [in French, English summary]. *Experientia*, vol.9: pp.352-356, 4 figs. 15 Sept. 1953. Review article, including recent work on endocrine glands of *Ephestia* and *Bombyx*. [P.B.]
- Gates, Marshall, "The chemistry of the pteridines." *Chem. Rev.*, vol.41: pp.63-95. Aug. 1947. Review of a group of compounds including the characteristic wing pigments of Pieridae. [P.B.]
- Geispits, K. I., "Light as a factor in regulating the development cycle of the Pine Silk

- Moth *Dendrolimus pini* L." [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.68: pp.781-784, 1 fig. 1949.
- Götz, Bruno, "Die Sexualduftstoffe der Lepidopteren" [in German, English summary]. *Experientia*, vol.7: pp.406-418, 8 figs. 15 Nov. 1951. Discusses scents produced by many female Lepidoptera to attract males, covering morphology of scent organs and nature, mode of action, specificity, etc., of odoriferous substances. [P.B.]
- Grandori, L., "Effets léthaux sélectifs d'une substance acétylcholinique sur quelques espèces d'insectes" [in French]. *Trans. 9th Int. Congr. Ent.*, vol.1: pp.269-272. March 1953. Describes experiments on effects of nerve drugs used for Mammalia upon, *i. a.*, larvæ and adults of *Bombyx mori* and the adults *Cydia molesta* affected by parasympatholytic, parasympathomimetic, and anticholinesterasic drugs. [A.D.]
- Gray, P. H. H., "A note on the colors of pupæ of *Pieris rapæ* developed under artificial conditions." *Lepid. News*, vol.7: pp.5-6. 20 Apr. 1953.
- Guppy, Richard, "*Papilio zelicaon* and hilltops." *Lepid. News*, vol.7: pp.43-44. 27 July 1953.
- Haaf, Erwin, "Die modifikabilität der Zeichnungselemente von *Zygaena carniolica* Scop. (Lep.)" [in German]. *Zeitschr. Naturforsch.*, vol.7b: pp.563-570, 11 figs. 1952. Reports effects of heat applied to pupa in modifying and eventually obliterating forewing pattern. [P.B.]
- Hackman, R. H., "Green pigments of the hemolymph of insects." *Arch. Biochem.*, vol.41: pp.166-174, 1 fig. Nov. 1952. Green color in *Pieris rapæ*, *Cacocia australana*, and *Amphipyra sanguinipuncta* caused by presence of yellow and blue chromoproteins; prosthetic group of former probably derived from carotenoids in plant tissues, of latter a porphyrin derivative perhaps formed in chlorophyll breakdown. [P.B.]
- Hamilton, James B., & Mildred Johansson, "Influence of sex chromosomes and castration upon lifespan. Studies of meal moths, a species in which sex chromosomes are homogeneous in males and heterogeneous in females." *Anat. Rec.*, vol.121: pp.565-577, 1 fig. March 1953. Castration of *Ephestia kuehniella* as larvæ did not affect longevity. [P.B.]
- Hirata, Yoshimasa, & Saburo Nawa, "Sur la fluorescénine (ichtyoptérine) obtenue des oeufs de *Bombyx mori* et des écailles de carpe" [in French]. *C. R. Soc. Biol.*, vol.145: pp.661-663. 25 July 1951. Pigment from silkworm eggs and carp scales identical. [P.B.]
- Hirata, Y., S. Nawa, S. Matsuura, & H. Kakizawa, "Synthèses des ptérines et une remarque sur la constitution d'une ptérine de *Bombyx mori*" [in French, English summary]. *Experientia*, vol.8: pp.339-341. 15 Sept. 1952. Chemistry of larval pigment of silkworm. [P.B.]
- Jeuniaux, Ch., & M. Amanieu, "Propriétés chitolytiques du liquid exuvial du ver à soie (*Bombyx mori* L.)" [in French; English summary]. *Experientia*, vol.11: pp.195-196, 1 fig. 15 May 1955. Presence of a chitinase demonstrated in molting fluid of silkworm. [P.B.]
- "T. W. K.", "The occurrence of phases in insects other than locusts." *Trop. Agric.*, vol.26: pp.133-135. July/Dec. 1949. Larvæ of *Laphygma exigua*, *L. exempta*, and *Spodoptera abbyssinia* develop dark, active, "gregarious" phase when reared in crowded conditions. [P.B.]
- Karlash, E. V., "The growth and viability of the larvæ of the Oak Silkworm under different conditions of insolation" [in Russian]. *Dokl. Vses. Akad. Sel'sk. Nauk. im. Lenina*, vol.14, no.5: pp.39-44, 2 figs. 1949. [Not seen.]
- Kato, Masaru, & Yasuji Hamamura, "Niacin and niacinamide biosyntheses in insects." *Science*, vol.115: pp.703-704. 27 June 1952. In pupæ of *Bombyx mori*.
- Knudsen, John P., "Butterflies and hilltops." *Lepid. News*, vol.8: pp.141-142. 20 Oct. 1954.
- Komarova, O. S., "Factors initiating diapause in the Grape Leaf Roller" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.68: pp.789-792, 1 fig. 1949. (*Polychrosis botrana*.)
- Koshtoiants, Kh. S., A. L. Byzov, & R. L. Mitropolitanskaja, "Oscillographic investigation of the central nervous system of the mulberry silkworm in various stages of development" [in Russian]. *Zool. Zhurn.*, vol.33: pp.807-814. July-Aug. 1954. [Not seen.]
- Kozhanchikov, I. V., "The significance of the age changes in the leaves of oak in the nutrition of the larva of *Antheraea pernyi* Guér. (Insecta, Attacidae)" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.57: pp.85-89, 2 figs. 1947. [Not seen.]
- Kozhanchikov, I. V., "Possibility of hibernation of the eggs of the Oak Silk Worm (*Antheraea pernyi* Guér.)" [in Russian]. *Dokl. Vses. Akad. Sel'sk. Nauk im. Lenina*, vol.13, no.6: pp.25-31. 1948. [Not seen.]
- Kozhanchikov, I. V., "Influence of seasonal variation in oak leaves on the nutrition and growth of the Oak Silk Worm (*Antheraea pernyi* Guér.)" [in Russian]. *Dokl. Vses. Akad. Sel'sk. Nauk im. Lenina*, vol.13, no.11: pp.31-36. 1948. [Not seen.]

- Kozhanchikov, I. V., "Influence of seasonal variation of the leaves of the food plant on the development of the Gypsy Moth (*Ocneria dispar* L.)" [in Russian]. *Dokl. Akad. Nauk. SSSR*, vol.66: pp.1203-1206, 2 figs. 1949.
- Kozhanchikov, I. V., "Features of the effect of negative temperatures on the embryonic development of insects" [in Russian]. *Zhurn. Obshch. Biol.*, vol.10: pp.50-67. Jan./Feb. 1949. Including *Operophtera brumata* and *Antheraea pernyi*. [Not seen.]
- Kozhanchikov, I. V., "Amplitude of diurnal temperature changes as a factor in the development of the larvæ of the Oak Silkworm (*Antheraea pernyi* Guer.)" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.67: pp.381-384, 2 figs. 1949.
- Kozhanchikov, I. V., "Influence of diurnal temperature amplitude on the growth and development of larvæ of the Oak Silkworm" [in Russian]. *Dokl. Vses. Akad. Sel'sk. Nauk. im. Lenina*, vol.14, no.7: pp.16-25. 1949. [Not seen.]
- Kozhanchikov, I. V., "Features of the hibernation and diapause of the Gypsy Moth (*Ocneria dispar* L.)" [in Russian]. *Dokl. Akad. Nauk. SSSR*, vol.73: pp.605-607, 2 figs. 1950.
- Kozhanchikov, I. V., "On the conditions for the conversion of the cabbage moth (*Barathra brassicae* L.) to nutrition by new plants" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.73: pp.385-387, 2 figs. 1950.
- Kozhanchikov, I. V., "Importance of seasonal changes in the chemistry of plants in the feeding of oak moths and of some other dendrophile Lepidoptera" [in Russian]. *Trudy Zool. Inst. Akad. Nauk SSSR*, vol.9: pp.667-709. 1951 [Not seen.]
- Krijgsman, B. J., "Contractile and pacemaker mechanisms of the heart of arthropods." *Biol. Revs.*, vol.27: pp.320-346, 1 fig. Aug. 1952. Review article, referring to work on many insects including *Bombyx* and *Prodenia*. [P.B.]
- Kühn, Alfred, "Wundheilung und Riezenzellenbildung bei *Ptychopoda seriata*" [in German]. *Zeitschr. Naturforsch.*, vol.40.: pp.104-108, 7 figs. 1949. Histology of healing of burn damage to epidermis. [P.]
- Kuzin, A. M., & P. V. Krzheva, "On the enzymatic activity of the virus of yellow disease in *Bombyx mori*" [in Russian]. *Biokhimiia*, vol.13: pp.523-529. Nov./Dec. 1948. [Not seen.]
- Legay, Jean Marie, "Expériences de jeûne absolu au cours du dernier âge de la vie larvaire chez *Bombyx mori* L." [in French] *C. R. Acad. Sci. Paris*, vol.234: pp.885-888. 1952. Effect of starvation on metamorphosis and imaginal weight. [P.B.]
- Lobashev, M. E., & A. Nikitina, "Temporary conditioned reflexes in silkworms" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.79: pp.1057-1059. 1951.
- Long, D. B., "Factors affecting the larval spot colours of the Emperor Moth, *Saturnia pavonia* L." *Nature*, vol.174: p.562. 18 Sept. 1954. Color change in response to in-sponse to intensity of light. [P.B.]
- Loritz, J., "Sur les femelles microptères de *Thaumatopea pityocampa* Schiffm. (Lepidoptera) obtenues en élevage" [in French]. *Trans. 9th Int. Congr. Ent.*, vol.1: pp.241-245. March 1953. Discusses the remarkable fact that so few (and not allied) moths of this large family possess micropterous or apterous females. Discards explanation by mutation, by natural selection, or by non-usage of wings; some physiological factor seems more probable, e. g., deficient food. Breeding experiments of *T. pityocampa* fed through the entire larval life with dessicated food produced micropterous females! Postulates existence of a physiological substratum different sexually (sensitive in ♀♀ only!) and specifically. [A.D.]
- Lozina-Lozinskii, L. K., "Butterfly wings as receptors of infrared radiation" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.93: pp.369-372. Nov. 1953. [Not seen.]
- Makino, Katashi, Kiyoo Satoh, Masahiko Koike, & Naomichi Ueno, "Sex in *Pieris rapæ* L. and the pteridin content of their wings." *Nature*, vol.170: pp.933-934, 1 fig. 29 Nov 1952. Reports much higher pterin content of male wings, causing them to appear black under ultraviolet light. [P.B.]
- Mamedniiazov, O. N., *Effect of carbohydrates on the development of the Oak-tree Silk-worm* [in Russian]. 34 pp. Ashkhabad, Turkmen FAN, 1951. [Not seen.]
- Mankiewicz, Edith, "The lipidolytic enzymes of larvæ of *Galleria mellonella*." *Canad. Journ. Res., Sect. E*, vol.27: pp.185-201. June 1949. Notes differences from lipase of beef pancreas. [P.B.]
- Mercer, E. H., "Formation of silk fiber by the silkworm." *Nature*, vol.168: pp.792-793, 1 fig. 3 Nov. 1951.
- Missionnier, Jacques, "Influence de la lumière sur le développement de la Teigne de la Farine (*Ephestia kuehniella* L.)" [in French]. *C. R. Acad. Sci. Paris*, vol.233: pp.986-987, 2 figs. 22 Oct. 1951. Pupal size is reduced when larvæ are reared under greater artificial day length, or in monochromatic light of certain colors. [P.B.]

- Murthy, M., R. Venkatachala, & M. Sreenivasaya, "Keto bodies in the hæmolymph of the Silkworm, *Bombyx mori* L." *Journ. Sci. Indust. Res.*, vol.12: pp.314-316, 1 fig. July 1953.
- Murthy, M., R. Venkatachala, & M. Sreenivasaya, "Effect of antibiotics on the growth of the Silkworm, *Bombyx mori* L." *Nature*, vol.172: pp.684-685. 10 Oct. 1953. Antibiotics in food stimulate growth and silk production. [P.B.]
- Murthy, M., R. Venkatachala, D. Shankaranarayana, & M. Sreenivasaya, "Role of chloromycetin in the nutrition of the silk-worm *Bombyx mori* Linn." *Journ. Sci. Indust. Res.*, vol.13B: pp.331-335, 2 figs. May 1954. Reports increased growth, silk production, and disease resistance in larvæ fed mulberry leaves smeared with this antibiotic. [P.B.]
- Muspratt, Vera Molesworth, "Butterflies on hilltops." *Lepid. News*, vol.8: pp.143-145. 20 Oct. 1954.
- Nikitina, I. A., "Neural regulation of silk filament extrusion in the Tussah Moth and Silkworm" [in Russian]. *Trudy Fiziol. Inst. Akad. Nauk SSSR*, vol.2: pp.562-578. 1953. [Not seen.]
- Östlund, Eric, "The distribution of catechol amines in lower animals and their effect on the heart." *Acta Physiol. Scand.*, suppl.112: 67pp., 29 figs. 1954. Presence of adrenaline and related substances demonstrated in larvæ of *Nymphalis urticae*. [P.B.]
- Ostriakova-Varshaver, V. P., "Cytology of fertilization in the Mulberry Silkworm in connection with variations in sensitivity of the consecutive phases of the process to high temperature" [in Russian]. *Dokl. Akad. Nauk. SSSR*, vol.83: pp.921-924, 1 fig. 21 Apr. 1952.
- Ovanesyan, T. T., "The form of the cells of the hemolymph of larvæ of the Mulberry Silkworm at different physiological stages of the organism" [in Russian]. *Zool. Zhurn.*, vol.30: pp.86-88. 1951. [Not seen.]
- Overlaet, F. G., "La 'curiosité' chez les papillons" [in French]. *Lambillionnea*, vol.52: pp.55-56. 25 Oct. 1952. Reports *Erebia æthiops* ♂♂ sucking moisture from the collector's hands. Thinks attraction to water or perspiration is characteristic of ♂♂ only. [P.B.]
- Pavel'eva, M. S., "The alteration of the bivoltine form of Oak Silkworm to the monovoltine" [in Russian]. *Dokl. Vses. Akad. Sel'sk. Nauk in. Lenina*, vol.16: pp.23-28. 1951. [Not seen.]
- Peacock, A. D., "Some problems of parthenogenesis." *Adv. Sci.*, vol.9: pp.134-148. 1952. Review of animal parthenogenesis, including summary of work on *Lymantria* and *Solenobia*. [P.B.]
- Polonovski, Michel, Carlos Alcantara, & René-Guy Busnel, "Sur la pluralité des ptérines des écailles des cyprinides et des oeufs de *Bombyx mori*" [in French]. *C. R. Acad. Sci.*, vol.236: pp.1703-1704. 1952. Pigment chemistry.
- Portier, Paul, & René-Guy Busnel, "Réaction des insectes décapités aux substances odorantes" [in French]. *C. R. Acad. Sci. Paris*, vol.234: pp.379-380. 21 Jan. 1952. Decapitated Lepidoptera of numerous genera react to strong odors in same manner as normal individuals. [P.B.]
- Powning, R. F., "Studies on the digestion of wool by insects. VIII. The significance of certain excretory products of the clothes moth, *Tineola bisselliella*, and the carpet beetle, *Attagenus piceus*." *Australian Journ. Biol. Sci.*, vol.6: pp.109-117. Feb. 1953. Form of excretion of nitrogen and sulphur in these insects and *Gnorimoschema*. [P.B.]

I. TECHNIQUE

- Hocking, B., "Plastic embedding of insects—a simplified technique." *Canad. Ent.*, vol.85: pp.14-18, 2 figs. 30 Jan. 1954. Describes a technique for embedding insect materials in proprietary plastics, omitting refinements needed only for soft tissues. [E.M.]
- Lindquist, O. H., "A device for capturing adult insects in rearing containers and cages." *Canad. Ent.*, vol.84: pp. 380-381, 2 figs. 31 Dec. 1952. A celluloid chamber with handle and sliding lid, said to be well adapted to transfer of small Lepidoptera. [E.M.]
- Morris, R. F., & W. A. Reeks, "A larval population technique for the winter moth (*Operophtera brumata* Linn.) (Lepidoptera: Geometridæ)." *Canad. Ent.*, vol.86: pp.433-438. 5 Nov. 1954. Describes physical and statistical aspects of sampling technique based on 4th instar larvæ. [E.M.]
- Oakland, G. B., "Determining sample size." *Canad. Ent.*, vol.85: pp.108-111. 15 April 1953. Discusses methods of determining size of useful samples in various types of investigation. Inadvertently validates the manuscript name *Choristoneura pinus* Freeman! [E.M.]
- Ross, D. A., & J. K. Harvey, "Notes on an infra-red lamp for drying inflated larvæ."

- Canad. Ent.*, vol.86: p.158. 28 May 1954. The infra-red lamp dries specimens more quickly than an oven, without scorching, and with less effect on colors. [E.M.]
- Ross, H. H., "Facets of insect surveys." *Canad. Ent.*, vol.84: pp.55-59. 27 Feb. 1952. Discusses scope, functions, and planning of insect surveys. [E.M.]
- Stark, R. W., "Analysis of a population sampling method for the lodgepole needle miner in Canadian Rocky Mountain Parks." *Canad. Ent.*, vol.84: pp.316-321. 7 Nov. 1952. Statistical discussion of sampling method used to assess variations in abundance of larvæ in populations identified as *Recurvaria milleri* Busck (Gelechiidæ). [E.M.]
- Stehr, G., "A laboratory method for rearing the spruce budworm, *Choristoneura fumiferana* (Clem.), (Lepidoptera: Tortricidæ)." *Canad. Ent.*, vol.86: pp.423-428, 7 figs. 22 Oct. 1954. An interesting and suggestive account of a method of rearing this refractory species under laboratory conditions. [E.M.]
- Strickland, E. H., "Polythene-stoppered vials for storing insects in alcohol." *Canad. Ent.*, vol.85: pp.470-471, 1 fig. 31 Dec. 1953. Describes adaptations of stoppers. [E.M.]

J. MISCELLANY

- Crane, Jocelyn, "Spectral reflectance characteristics of butterflies (Lepidoptera) from Trinidad, B. W. I." *Zoologica, N. Y.*, vol.39: pp.85-113, 9 figs. 15 Oct. 1954. Analysis of the spectral composition of the wing colors of 40 spp., with special attention to reflectance in the ultraviolet; in only a few species (*Morpho*, *Biblis*, *Callicore*, some *Papilio*) is ultra-violet reflectance likely to be a factor in social behavior such as sex recognition. [P.B.]
- Darteville, E., "Lépidoptères et timbres-postes" [in French]. *Lambillionnea*, vol.54: pp.39-41. 25 Aug. 1954. Lepidoptera and stamps, chiefly of the Portuguese African overseas territories. [P.V.]
- Hoffmann, Emil, "Steuerdirektor Hugo Skala" [in German]. *Zeits. Wiener Ent. Ges.*, vol.38: pp.147-149, 1 portrait. 15 June 1953. Obituary; bibliography. [N.O.]
- Skell, F., "Ludwig Osthelder, Regierungspräsident von Oberbayern a.D., Ehrenvorsitzender der Münchener Entomologischen Gesellschaft" [in German]. *Nachrbl. Bayer. Ent.*, vol.3: pp.25-27, 1 portrait. 15 March 1954. Obituary of distinguished German lepidopterist. [N.O.]

NOMENCLATURE NOTICE

The Secretary to the International Commission on Zoological Nomenclature has announced an application for validation by the Commission under the Plenary Powers of the name *Dictyoploca* Jordan, 1911 (Saturniidæ). The file number of this case is Z.N.(s.) 1072. The full application is to be found in the *Bulletin of Zoological Nomenclature*, vol. 13: part 2/3, published 29 March 1957. Any specialist who may desire to comment on this application is invited to do so in writing to the Secretary to the International Commission (Address: 28 Park Village East, Regent's Park, London N.W. 1, England) as soon as possible. Every such comment should be clearly marked with the Commission's File Number as given in the present Notice and sent *in duplicate*. Comments should reach the Secretary at the latest by 29 September 1957. — C. L. R.

NOTICES BY MEMBERS

Will purchase: cocoons of U.S. Saturniidæ, especially *Cecropia* and *Polyphemus*, pupae of Sphingidæ, and *Papilio*. Must be free of parasites. Also want fertile eggs of Sphingidæ. Eugene Dluhy, 3912 N. Hamilton Ave., Chicago 18, Ill., U. S. A.

Will have ova of *P. cecropia*, *P. rubra*, *T. polyphemus*, a few *A. io*, and others for sale, 30 to 60 cents per doz. Also large quantity U.S. Lepid. for sale and exchange. Mrs. Edith Lyle Ragsdale, 429 N. Marion St., Centralia, Ill., U. S. A.

For sale: Seitz' *African Rhopalocera*, complete with 80 col. plates, unbound, German edit. \$35.50; Boisduval & Sganzin, *Faune Entomologique Madagascar, Bourbon et Maurice*, unbound, \$15.00; Aurivillius' *Rhopalocera Aethiopia* (cover spotted) \$7.50; *Bull. of the Hill Museum*, unbound, lacking Vol.2, no.4, Vol.3, no.4, and Vol.4, no.2, \$35.00. Also have about 75 duplicate reprints to exchange with anyone interested. G. R. DeFoliart, 2108 Rainbow, Laramie, Wyo., U. S. A.