

## RECENT LITERATURE ON LEPIDOPTERA

(Under the supervision of PETER F. BELLINGER)

Under this heading are included abstracts of papers and books of interest to lepidopterists. The world's literature is searched systematically, and it is intended that every work on Lepidoptera published after 1946 will be noticed here; omissions of papers more than 3 or 4 years old should be called to Dr. BELLINGER's attention. New genera and higher categories are shown in CAPITALS, with types in parentheses; new species and subspecies are noted, with type localities if given in print. Larval foodplants are usually listed. Critical comments by abstractors may be made. Papers of only local interest and papers from *The Lepidopterists' News* are listed without abstract. Readers, particularly outside of North America, interested in assisting with this very large task, are invited to write Dr. BELLINGER (San Fernando Valley State College, Northridge, Calif., U.S.A.). Abstractor's initials are as follows: [P.B.] — P. F. BELLINGER; [I.C.] — I. F. B. COMMON; [W.C.] — W. C. COOK; [A.D.] — A. DIAKONOFF; [W.H.] — W. HACKMAN; [T.I.] — TARO IWASE; [J.M.] — J. MOUCHA; [E.M.] — E. G. MUNROE; [N.O.] — N. S. OBRATZSOV; [C.R.] — C. L. REMINGTON; [J.T.] — J. W. TILDEN; [P.V.] — P. E. L. VIETTE.

### B. SYSTEMATICS AND NOMENCLATURE

- Roepke, W., "*Attacus dohertyi dammermani* nov. subsp., and some notes concerning the genus *Attacus* L. (Lepidoptera Heterocera, Family Saturniidae)." *Zool. Meded.*, Leiden, vol. 22: pp. 49-56, 2 pls. 1953. New ssp. from W. Sumba. Records names so far applied to populations of *A. atlas*, by localities, & suggests that most are individual variations; notes on a specimen of *A. crameri* from Flores. [P. B.]
- Roepke, W., "Four lasiocampids from Java (Lepidoptera Heterocera)." *Tijdschr. Ent.* vol. 96: pp. 95-97, 1 pl. 1953. Describes as new *Gastropacha acutifolia* (Perbawatee): *MICROPACHA* (monobasic), *M. kalisi* (Mt. Ardjuno, Djunggo, 1500 m., E. Java). Redescribes *Taragama proserpina* (n. spp?), previously known only from New Guinea. [P. B.]
- Roepke, W., "Some new or little known Lepidoptera from Indonesia and New Guinea. I." *Tijdschr. Ent.*, vol. 97: pp. 257-262, 1 pl., 4 figs. 1954. Describes as new: (Saturniidae) *Actias menas groenendaeli* (Mataloko, 1000 m., central Flores); (Nyctemeridae) *Nyctemera regalis* (1200 m., central Flores), *N. floresicola* (Hua Besi, 700 m., central Flores), *N. timorensis* (Soë Timor); (Noctuidae) *Taviodes javanica* (W. Java). Notes on *Nyctemera* spp., *Paranagia rufostriata*, *Melipotis kebea borneensis*, & *Sarbanissa albifascia*. [P. B.]
- Roepke, W., "The species of the genus *Spilosoma* Steph. in Java (Lep. Arctiidae)." *O. S. R. -Publ.* no. 41: 7 pp., 1 pl. 1954. Describes as new *S. toxopei* (Wanasari, near Bandung, W. Java), *S. holophæum* (Tjibodas, 1400 m., Gedeh, W. Java), *S. xanthosoma* (Patuhawattie, 1750 m., W. Java). Annotated list of 12 other spp., with systematic notes. [P. B.]
- Roepke, W., "The butterflies of the genus *Delias* Hübner (Lepidoptera) in Netherlands New Guinea." *Nova Guinea*, n. s., vol. 6: pp. 185-260, 4 pls. 1955. Describes as new *D. lecerfi cyclosticha* (Rattan Camp), *D. abrophora* (L. Paniai, 1750 m.), *D. geraldina siderea* (Araucaria Camp), *D. g. vaneechoudi* (Wissel Lakes, 1750 m.), *\*D. hypomelas fulgida* (Sigi Camp, 1500 m.), *D. h. lieftincki* (Ibele Camp, 2250 m.), *D. argentata* (Ibele Camp), *D. sphenodiscus* (Araucaria Camp, 800 m.), *D. cuningputi ibelana* (Moss Forest Camp, 2600-2700 m.; Ibele Valley, 2220-2300 m.), *D. aroa balimensis* (Balim Valley, 1650-1700 m.), *D. eichhorni antara* (Moss Forest Camp, 2700 m.), *D. e. germana* (Moss Forest Camp & Ibele Camp, 2250-2850 m.), *D. e. heliophora* (Arabu R.), *D. carstensziana alcicornis* (L. Habbema, 3300 m.), *D. leucobalia ericetorum* (L. Habbema, 3000-3250 m.), *D. catisa aurostriga* (Ibele Camp, 2250m.), *\*D. c. wisseliana* (L. Paniai, 1700 m.), *\*D. toxopei* (Ibele Camp, 2250 m.), *D. t. morosa* (Arabu R. Valley, 1800 m.), *D. nais holophæa* (Rattan Camp, 1200 m.), *\*D. zebra* (Ibele Valley, 2200-2300 m.), *\*D. mesoblema flavistriga* (Moss Forest Camp), *D. m. arabuana* (Arabu R., 1800 m.), *D. luctuosa archboldi* (Moss Forest Camp, 2700-2800 m.), *D. callista callipareia* (Ibele Valley, 2200-2300 m.), *D. hapalina amæna* (Ibele Valley, 2250 m.), *D. h. adnexa* (Arabu R., 1800 m.), *D. campbelli microleuca* (Lower Mist Camp, 1450-1600 m.), *\*D. phippii*

- wisseli* (Arabu R., 1800 m.), *D. rosamontana* (Ibele Valley, 2200-2300 m.), *D. kummeri fumosa* (Araucaria R. Camp, 800 m.), *D. ligata interpolata* (Sigi Camp, 1450-1500 m.), *D. alepa orthobasis* (Mist Camp, 1800 m.), *D. wollastoni bryophila* (Moss Forest Camp, 2700-2800 m.), *D. discus apodiscus* (Araucaria R., 700-800 m.), *D. catocausta nigerrima* (probably "headwaters of Andreae R."), *D. maria walshe* (Ibele Valley, 2250 m.), \**D. m. boschmai* (Arabu R., 1800 m.), *D. mira autumnalis* (Moss Forest & Ibelle Valley, 2200-2700 m.), *D. m. hiemalis* (above Arabu R. Camp, 2200 m.), *D. klossi chrysanthemum* (Moss Forest, 2600-3000 m.), \**D. meeki hypochrysis* (several localities), \**D. m. hypozantha* (Balim Valley, 1700-2000 m.), *D. parennia* (Araucaria Camp, 800 m.). Also names some "forms." The paper is based on an unfinished manuscript by Toxopeus, and the new names (except those marked with an asterisk) should apparently be credited to him. 53 spp. and numerous ssp. are recorded, with descriptive notes on those already known; distribution is discussed at length, and biology & flight habits are described when known. The extraordinary development of the genus in New Guinea is revealed by the fact that the collections on which this paper is based were made in only 2 rather small areas; the present total of 72 species in the island will very likely increase still further. [P. B.]
- Roepeke, Walter, "Weitere Untersuchungen über die südostasiatische Gattung *Trabala* Walk. (Lasiocampidæ)" [in German]. *Zeitschr. Lepid.*, vol. 3: pp. 143-150, 1 pl., 4 figs. 1955. Describes as new *T. bhatarata* (NE Sumatra, "Battakberge südl. Deli"), *T. sugata* (Mt. Maquiling, 50 m., Philippines). Briefly describes additional material of known spp. from China (especially *T. vishnou*) & Sumatra. [P. B.]
- Roepeke, W., "Some new or little known Lepidoptera from Indonesia and New Guinea, II." *Tijdschr. Ent.*, vol. 99: pp. 23-30, 2 pls. 1956. Describes as new: (Saturniidae) *Actias selene wandenberghi* (Pangkalan Brandan, Sumatra); (Noctuidæ) *Apatele javanica* (Tjibodas, 1400 m., W. Java); *Elusa orion* (MacCluer Gulf, Bintuni Bay, R. Tisa, New Guinea); *PSEUDOSICCIA* (monobasic, Erastrinæ), *P. lichenaria* (Tjibodas, 1400 m., W. Java); *Sarothripus javanus* (Mt. Lawu, central Java); *Hypatra modista* (Samarinda, SE Borneo). Notes on *Gadirtha cuprescens jakjakensis*, *Carea pryeri*, *Savara longipectinata*, *Anomis dealbata*, & *Hyblaea joiceyi*. [P. B.]
- Ronninger, H., "Ein bisher unbekanntes Cecidium in Niederösterreich. Biologie und systematische Stellung des Erzeugers dieser Galle, der Gelechiide *furfurella* Stgr." [in German]. *Zeitschr. Wiener ent. Ges.*, vol. 40: pp. 177-183, 4 figs. 1955. Transfers *furfurella* from *Gelechia* to *Caulastrocecis*. Redescribes adult & describes gall, on *Aster linosyris*. [P. B.]
- Rosier, J. P., "Notes on Lepidoptera. 1. A new *Charaxes* from Java. II. Metamorphosis of some Javanese butterflies." *O. S. R.-Publ.*, no. 35: pp. 1-4, 4 figs. ?1953. Description of *C. scylax*, thought at the time to be unnamed. Describes early stages of *Poritia erycinoides*, on *Castanea argentea*. [P. B.]
- Ross, Edward S., "Proposed use of the Plenary Powers to validate the generic name *Dictyoploca* Jordan, 1911 (Class Insecta, Order Lepidoptera) by suppressing the name *Dictyoploca* Krauss, 1911 (Class Insecta, Order Embioptera)." *Bull. zool. Nomencl.*, vol. 15: pp. 80-83. 1957. Requests conservation of former name & its type, *simla*. [P. B.]
- Rougeot, P. C., "Description d'une nouvelle espèce de saturniide du Gabon et de ses premiers états" [in French]. *Bull. mens. Soc. linn. Lyon*, vol. 19: pp. 224-227, 3 figs. 1950. Describes as new *Tagoropsis genoviefae* (Oyem, Gabon); describes larva & pupa. Distinguishes *Tagoropsis* & *Pseudantherea* in early stages. [P. B.]
- Rougeot, P.-C., "Description d'une nouvelle espèce de saturniide du Gabon" [in French]. *Bull. mens. Soc. linn. Lyon*, vol. 21: pp. 112-114, 3 figs. 1952. Describes as new *Micragone martinæ* (Oyem, Gabon). [P. B.]
- Rougeot, P. C., "Sur les attacides éthiopiens décrits par Joh.-Christ. Fabricius" [in French]. *Bull. mens. Soc. linn. Lyon*, vol. 26: pp. 187-188. 1957. Note on some species of Ethiopian saturniids described by Fabricius, chiefly *Bombyx irius*. [P. V.]
- Rousseau-Decelle, G., "Contribution à l'étude des *Papilio* de la faune Indo-Océanienne" [in French]. *Bull. Soc. ent. France*, vol. 51: pp. 128-133. "1946" [1947]. Describes as new *P. epyades camilla* (Hoa Bihn, Tonkin), *P. ascalaphus haliaetus* (locality unknown). Names 17 "forms". [P. B.]
- Rousseau-Decelle, G., & F. L. Johnson, "Note sur une sous-espèce nouvelle de *Charaxes* africain (Lep. Nymphalidæ)" [in French]. *Bull. Soc. ent. France*, vol. 62: pp. 151-153, 1 pl. 1957. Description of the ssp. *C. boueti ghanaensis*, a new ssp. from Vane, South British Togoland. [P. V.]

- Rozhkov, A. S., "Larch and cedar races of *Dendrolimus sibiricus* Tshetw." [in Russian]. *Rev. Ent. URSS*, vol. 36: pp. 72-74, 1 fig. 1957. Genitalia characters. [N. O.]
- Rungs, Ch., "Notes de lépidoptérologie marocaine (xv): Noctuidæ nouvelles" [in French]. *Bull. Soc. Sci. nat. Maroc*, vol. 25/27: pp. 328-332, 1 pl. 1949. Describes as new *Antitype boursini* (Bou Ouchane, 20 km. SW of Mogador, Morocco); *Cleophana chabordis mogadorensis* (near Mogador); *Amphipyra pyramidea berbera* (Ifrane, Middle Atlas, Morocco); also a new "form" of *Sesamia vuteria*. [P. B.]
- Rungs, Ch., "Notes de lépidoptérologie marocaine (xvi): descriptions et notes critiques" [in French]. *Bull. Soc. Sci. nat. Maroc*, vol. 28: pp. 142-166, 2 pls. 1950. Describes as new *Euchloe tagis atlasica* (N. Middle Atlas, 1900 m.); *Melitæa aurinia ellisoni* (Ifrane, Middle Atlas, 1650 m.); *Euxoa hastifera marocana* "Boursin & Rungs" (Ifrane); *Dasytopia templi powelli* (Ifrane), *D. ferdinandi haroldi* (Ifrane); *Eumichtis susica* (Ain Chaïb); *Sidemia dimorpha* (Ait Melloul, S. of Agadir); *Caradrina (Paradrina) danieli* (Mogador-Safi Rd.); *Axia vaulogerii iblis* (Sidi Oueddar); *Ortholitha feliciaria hebes* (Ifrane); *Boarmia umbraria mimeuri* (Ifrane); *Selenia lunaria gamra* (Ifrane valley, 1550 m.), *Taragama reragueti* (Ain Chaïb); also several "forms". Notes on variation, distribution, etc. of other spp. (Papilionidæ, Danaidæ, Noctuidæ, Geometridæ, Zygaenidæ, Cossidæ). [P. B.]
- Rungs, Ch., "Un nouvel arctiide tunisien (Lep.)" [in French]. *Bull. Soc. ent. France*, vol. 56: pp. 99-101, 1 fig. 1951. Describes as new *Maenas chneouri* (Sbeitla, central Tunisia); keys to separate sp. from *M. breveti* & *M. joycei*. [P. B.]
- Rungs, Ch., "Deux nouvelles Cucullianæ marocaines (Lep. Phalœnidæ)" [in French]. *C. R. Soc. Sci. nat. Maroc*, vol. 18: pp. 137-139, 2 figs. 1952. Describes as new *Melopoceras drissi* (Mestigmeur, NE Morocco); *Allophytes powelli* (Ifrane; larva on *Cratægus*). [P. B.]
- Rungs, Ch., "Notes de lépidoptérologie marocaine (XVIII). Nouvelles formes et espèces rares du Maroc" [in French]. *Bull. Soc. Sci. nat. Maroc.*, vol. 31: pp. 75-92, 7 figs. 1952. Describes as new *Agrotis (Powellinia) baetica* "race" *variata* (Ait Melloul), *A. b.* "race" *matoui* (Rio de Oro, Poso Yerifia); *Ochropleura candelisequa zernyi* (Taanezoult); *Saragossa seeboldi marocana* (Sangal); *Cucullia bubačeki nokra* (Mestigmeur); *Xylena lunifera buckwelli* (Ifrane, 1650 m.); *Apamea arabs boursini* "Powell & Rungs" (Oued Djida); *Heterographa püngeleri occidentalis* (Maajez); *Toxocampa craccæ riata* (Bab Taka Pass, S. of Taza); *Phigalia buckwelli* (Ifrane, 1650 m.); *Parasa thamia* ("Vallée de l'oued Cherrat"); *Hypopta vaulogerii meirleirei* (N. of Sidi Srhir). Notes on identity & distribution of other Moroccan spp. (Pieridæ, Noctuidæ, Geometridæ, Cossidæ, Pyralidæ, Blastobasidæ, Gelechiidæ, Micropterygidæ). [P. B.]
- Rungs, Ch., "Notes de lépidoptérologie marocaine (XXII). Nouvelles additions à la faune marocaine; descriptions; observations sur la répartition ou l'écologie de certaines espèces" [in French]. *Bull. Soc. Sci. nat. phys. Maroc*, vol. 36: pp. 277-298, 6 figs. "1956" [1957]. New additions to the lepidopterological fauna of Morocco, notes on the distribution or the ecology of some spp. with descriptions of new spp. & ssp.: *Ochropleura atlas* (Middle Atlas); *Xylocampa areola srira* (Ait Melloul); *Simyra albovenosa africana* (NW Morocco); *Cerura bifida beida* (near Agadir); *Notodonta zizac reisseri* (Rif). [P. V.]
- Sailer, Reece I., "Common names of insects approved by the Entomological Society of America." *Bull. ent. Eoc. Amer.*, vol. 1, no. 4: pp. 1-34 1955. Lists economically important insects by common & scientific names; also gives approved common names for higher groups. Inadvertently validates the generic name *ANAGASTA* (for *Ephestia kühniella*) & possibly other new names as well. List of proposed additions. [P. B.]
- Salmon, J. T., "New species of New Zealand Lepidoptera." *Trans. Roy. Soc. New Zealand*, vol. 83: pp. 573-576, 2 pls. 1956. Describes as new *Melanchnra meridiana* (Portobello & Dunedin), *M. boldensis* (Bold Peak, Lake Wakatipu) (Noctuidæ); *Azelina gallaria venustula* (Little Barrier Island) (Geometridæ); *Bactra flammea* (Upper Hollyford Valley, 3,000 ft.) (Tortricidæ); & *Archyala homeric* (Homer Cirque) (Tineidæ). Photographs of types; genitalia not described or figured. [I. C.]
- Sanford, Leonard J., & Neville H. Bennet, "New *Delias* from the central highlands of New Guinea (Lepidoptera, Pieridæ)." *Entomologist*, vol. 88: pp. 1-4, 1 pl. 1955. Describes as new *D. gilliardi* (Mt. Wilhelm, Bismarck Mts., 9500 ft.), *D. hallstromi* (Mt. Hagen, 7500-12,000 ft.); *D. mira roepkei* (Mt. Hagen), *D. doylei* (Kup, 5000-7000 ft.); all figured in color. [P. B.]

- Schütze, Eduard, "Eupitheciiden-Studien I. (Lep. Geom.). Vier deutsche *impurata*-Rassen" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 36: pp. 164-170, 1 pl. 1952. Describes as new *E. i. gremmingerata* (Wutach region, Black Forest), *E. i. badiniata* (Kaiserstuhl, Baden), *E. i. langeata* (Zschopautal, Saxony), *E. i. germanicata* (Edersee/Waldeck). Populations of this sp. are isolated; 3 of above races are said to breed true when reared under varying conditions (on *Campanula* spp.). [P. B.]
- Schütze, Eduard, "Eupitheciiden-Studien II (Geometridæ). Zur Frage der Artberechtigung von *Eupithecia pyreneata* Mab." [in German]. *Zeitschr. Lepid.*, vol. 2; pp. 177-187, 1 map. 1952. Distinguishes between this sp. & *E. pulchellata*. ♂ genitalia are indistinguishable, but there are differences in egg, larva, & adult; former sp. is confined to *Digitalis ambigua* & latter to *D. purpurea*. [P. B.]
- Schütze, Eduard, "Eupitheciiden-Studien VII und VIII" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 41: pp. 306-320, 328-339, 3 pls., 13 figs. 1956. Describes as new subgenus *DIETZEA* (type *E. semigraphata*), *E. (D.) semigraphata gravosata* (Gravosa, Dalmatia), *E. (D.) impurata thuringiata* (Blankenstein, Thüringen), *E. (D.) i. franconiata* (Pottenstein, Fränkischer Jura), *E. (D.) subumbrata iliata* (Gouldscha, Fergana), *E. (D.) limbofasciata* "Dietze spec. nov." (no evidence that sp. was described by Dietze) (Alexander Mts., N. Tibet), *E. (D.) orphnata ferganata* (Gouldscha, Fergana). Revises *semigraphata* group (*Dietzea*) with descriptive notes, especially on *E. pæcilata* & *E. exactata*. Notes on biology of spp. of this subgenus (larvæ on *Campanula*, or polyphagous). Descriptive notes also on *E. mesogrammata*, *E. lithogrammata*, *E. undulifera*, & *E. harenosa*. [P. B.]
- Schulte, Adolf, "*Chiasma clathrata hōnei* ssp. nov. (Lep., Geom.)" [in German]. *Bonner zool. Beitr.*, vol. 5: p. 156, 3 figs. 1954. Type locality Tapaishan in Tsinling, S. Shensi, 1700 m., China. [P. B.]
- Schwingschuss, Leo, "Eine für Österreich neue *Zygæna* in Niederösterreich. *Peucedanophila (Zygæna) [sic!] cynaræ* Esp. und ihre Formen" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 36: pp. 135-137. 1952. Describes as new *P. c. austriaca* (Theyernerhöhe, near Herzogenburg); notes on variation in sp. [P. B.]
- Schwingschuss, Leo, "Interessante Heterocerenformen aus meiner Sammlung" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 39: pp. 218-219. 1954. Describes as new (very briefly) *Rhyacia candelisequa piemonticola* (Col di Sestriere, Piedmont); *Eupithecia egenaria amurensis* ("Radde am Amur"), *E. distinctaria piemonticola* (Col di Sestriere); *Minoa murinata lutea* (Tuapse, Caucasus, & Crimea; "Form (oder spp.?)"). Also names several "forms" (Notodontidæ, Geometridæ). [P. B.]
- Schwingschuss, Leo, "Nachträge und Berichtigungen zu den Lepidopterenfaunen des Libanon, Grossen Atlas, Irans und Neubeschreibungen" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 40: pp. 225-231. 1955. Describes as new *Eupithecia spissilineata libanotica* (Lebanon); *Rhyacia candelisequa atlantivolvans* (High Atlas); *Scotogramma pugna atlantis* (High Atlas); *Eupithecia santolinata barbaria* (no locality); *Rhyacia elegans iranica* (Iran); *Auchmis comma demavendi* (Demavend, Iran); *Anaitis annexata iranica* (Iran). Some other new names may be valid (e.g., after brief description of Middle Atlas race of *Bryophila pyreneæ*, "Boursin wird diese spp. *tachdirta* benennen"). Also names several "forms". Systematic notes on papers by Zerny on Lepidoptera from Lebanon & from Atlas Mts., & by Schwingschuss on Lepidoptera from Iran (citations incomplete). New entities very briefly described, without figures or mention of type specimens or type localities. One may pardon the author of this most unsatisfactory paper, since it was published after his death; it is hard to forgive the editor for permitting it to appear in this form. [P. B.]
- Sevastopulo, D. G., "The genetics of East African Lepidoptera—VII." *Entomologist*, vol. 90: pp. 255-257. 1957. *Dasychira aprepes* reduced to "form" of *D. daphne* as a result of breeding experiments; 2 other "forms" named. [P. B.]
- Sheljuzhko, Leo, "Über die Übertragung von Aberrationsnamen auf Subspezies" [in German]. *Mitt. münchen. ent. Ges.*, vol. 46: pp. 291-303. 1956. Disapproves of elevation of names given to aberrations to subspecific rank, at least in cases where name was originally given to a form which is aberrant in the subspecies; thinks latter should receive new name. Discusses 4 cases in which aberrational name was elevated, **thereby changing its meaning, & proposes new names for 2 spp.:** *Hypernestra helios hyrcana*, & *Parnassius nomion irkutskensis*. The cases discussed are unfortunate, but by the present rules the new names are junior synonyms, respectively, of *persica* Rothschild & *dis* Bryk & Eisner (authorities for these names are the authors who first treated them as being of subspecific rank). [P. B.]

- Shirôzu, Takashi, "Butterflies." In Kihara, H., ed., *Fauna and flora of Nepal Himalaya*, vol. 1: pp. 317-381, 4 pls., 77 figs. Kyoto: Fauna and flora research society. 1955. List of 16 Papilionidæ, 15 Pieridæ, 6 Danaidæ, 1 amathusiid, 21 Satyridæ, 39 Nymphalidæ, 5 Riodinidæ, 33 Lycænidæ, & 7 Hesperiidæ; with references, notes on distribution & habitat, & some systematic notes. Figures many adults & some ♂ genitalia (especially of Satyridæ & Lycænidæ). Names an aberration of *Byasa polyeuctes letincius*. [P. B.]
- Shirozu, Takashi, "New or little known butterflies from the north-eastern Asia, with some synonymic notes. III." *Sieboldia*, vol. 1: pp. 229-236, 5 pls. 1955. Describes as new *Colias erate formosana* (Pianan-anbu, 1810 m., Taihoku Pref., N. Formosa); *Hestina assimilis shirakii* (Yuwan, Amami-Oshima), *H. japonica seoki* (Kyosho, Kiesho-nondo, S. Korea); *Bremeria nycteis pallescens* (Chung Chan, Manchuria). Places *Pantoporia hirayamai* as ssp. of *Tacoreæ opalina*. [P. B.]
- Shirozu, Takashi, "A new *Pithecopis* from the Tsushima Islands, Japan (Lepidoptera, Lycænidæ)." *Sieboldia*, vol. 2: pp. 35-37, 1 pl., 5 figs. 1957. Describes as new *P. fulgens tsushimana* (Susuna-mura, Tsushima Islands; larvæ on flowers of *Desmodium racemosum*). Figures series of new & typical races. [P. B.]
- Shirozu, Takashi, "An unrecorded thecline butterfly from Formosa (Lepidoptera, Lycænidæ)." *Sieboldia*, vol. 2: pp. 41-42, 1 pl. 1957. Describes as new *Wagimo slugeri insularis* (vicinity of Musha, central Formosa): [P. B.]
- Shirozu, Takashi, "Two new subspecies of *Erebia nipponica* Janson from Honshu, Japan (Lepidoptera; Satyridæ)." *Sieboldia*, vol. 2: pp. 39-40, 1 pl. 1957. Describes as new *E. n. shibutsuana* (Mt. Shibutsu, Gumma Pref.), *E. n. sugitanii* (Kiso-Komagadake, 2950 m., Kisu Mts., Nagano Pref.). [P. B.]
- Shirozu, Takashi, & Hideho Yamamoto, "Systematic position of the genus *Curetis* (Lepidoptera, Rhopalocera)." *Sieboldia*, vol. 2: pp. 43-51, 15 figs. 1957. Proposes new family CURETIDÆ for this genus; describes pupa & ♂ genitalia, & points out differences from Lycænidæ in all stages. Genus shows some riodinid characters & is regarded as transitional to "Nymphalides".. [P. B.]
- Sieder, Leo. "Zweite Vorarbeit über die Gattung *Solenobia* (Lepidopt., Psychidæ-Talæporinæ). Gen. nov. PRÆSOLENOBIA. Subgen. nov. *Solenobia SOLENOBIA* Zeller. Spec. nov. *Sol. Brevantennia saxatilis*" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 39: pp. 241-254. 1954. Describes as new PRÆSOLENOBIA (type *Psyche clathrella*); *S. (B.) saxatilis* (Rattendorfer Alm, Karnisch Alps, 1100-1400 m.). Formally erects "typical" subgenus SOLENOBIA, selecting *S. manni* as subgenero-type; this is unfortunately impossible, since *manni* was not included in *Solenobia* when genus was erected (by Duponchel, not Zeller). Lists spp., with their distribution; describes ♀ of *S. manni*; repeats original descriptions of *S. clathrella* & *S. manni*, & Zeller's description of *Solenobia*. Notes on identity of some other spp. [P. B.]
- Sieder, Leo, "Dritte Vorarbeit über die Gattung *Solenobia* (Lepidopt., Psychidæ-Talæporinæ). Spec. nov. *Sol. Solenobia meieri*. Bericht 1954 über Solenobien" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 40: pp. 4-9. 1955. Describes as new *S. (S.) meieri* (Gaberl, Styria, 1300 m.); larval cases mostly found on larch trunks. Records spp. collected in 1954. [P. B.]
- Sieder, Leo, & Friedr. Loebel, "Wissenwertes über die Gattung *Epichnopterix* Hb. (Lep. Psychidæ)" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 39: pp. 310-327, 1 pl. 1954. Repeats original descriptions of genus & some spp.; redescribes & figures central European spp. known to authors. *E. pulla* is stated to be the genotype, although *pulla* was not originally included in the genus and the name was not originally applied to the species for which it is used here; this action avoids drastic name changes, but is unfortunately illegal. [P. B.]
- Sieder, Leo, "Erster Beitrag zu: Wissenwertes über die Gattung *Epichnopterix* Hb. (Lep. Psychidæ)". *Epichnop. kovácsi* spec. nov." [in German]. *Zeitschr. wiener ent. Ges.*, vol. 40: pp. 157-164. 1955. New sp. described from "Budaörs Csiki-hegyek" (Hungary). Discusses distribution & phylogeny in genus. Gives list of European spp., with distribution & notes on larval cases. [P. B.]
- Sieder, Leo, "Zwei neue *Talæporia*-Subspecies aus dem Pannonicum. *Talæp. tubulosa gozmányi* ssp. nov. *Talæp. politella szöczyi* ssp. nov." [in German]. *Zeitschr. wiener ent. Ges.*, vol. 40: pp. 204-206. 1955. New ssp. described from "Bulgaria C. Stanimaka", & "Budaörs Csiki-hegyek" (Hungary), respectively. [P. B.]
- Sieder, Leo, "REISSERONIA gen. nov. (Lepidoptera, Psychidæ)" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 41: pp. 162-170. 1956. Type of new genus is *Epic-*

- nopterix tarneriella*; genus also includes *E. hoffmanni* & *Rebelia nigrociliella*. Redescribes these spp. [P. B.]
- Sieder, Leo, "Vierte Vorarbeit über die Gattung *Solenobia* Z. (Lepidopt., Psychidæ-Talæporiinae). Die Nachuntersuchungsergebnisse der acht Typen van *Solenobia Sol. alpicolella* Rebel. *Solenobia Sol. meierella* spec. nov. Neue Solenobienarten aus der Schweiz (Dr. W. Sauter, Zürich)" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 41: pp. 192-204, 218-225. 1956. Describes as new *S. meierella* (Kosmatica, 1500 m., Karawanken, Carinthia, Austria). Redescribes *S. alpicolella* (= *meieri* Sieder, new synonym); describes biology. Reproduces paper by Sauter (1954) describing Swiss *Solenobia* spp. Lists spp. of *Solenobia*. [P. B.]
- Silver, G. T., "Separation of the species of arborvitæ leaf miners in New Brunswick (Lepidoptera: Yponomeutidæ and Gelechiidæ)." *Canad. Ent.*, vol. 89: pp. 97-107, 26 figs. 1957. Distinguishes *Argyresthia thuiella*, *A. aureoargentella*, *A. freyella*, & *Recurvaria thujaella*, in larval, pupal, & adult stages; points out differences in mining patterns. [P. B.]
- Soffner, J., "Die mitteleuropäischen Phycitinæ (Mikrolepidoptera)" [in German]. *Mitt. münchener ent. Ges.*, vol. 46: pp. 61-81, 42 figs. 1956. Key to 36 genera, based mainly on wing venation (figured). Describes characters of subfamily, & technique for examining venation. [P. B.]
- Soffner, Joseph, "A new tortricid from Morocco: *Semasia lucasiana* sp. nov." [in German & English]. *Ent. Rec. & Journ. Var.*, vol. 69: pp. 192-193, 1 pl. 1957. Taken near Ifrane. [P. B.]
- van Someren, V. G. L., "Revisional notes on *Lepidochrysoptis* (Lycænidæ: Lampidinae) of Kenya and Uganda, with descriptions of new species and subspecies" *Journ. ent. Soc. southern Afr.*, vol. 20: pp. 58-78, 2 pls. 1957. Describes as new *L. pterou suk* (Lacheliba Suk, Kenya), *L. neonegus borealis* (N. Acholi, Madi Opei, Uganda), *L. budama* (Tororo Hills, Uganda), *L. jacksoni* (Tororo Hills), *L. labwor* (Karamoja, Aremo, Uganda), *L. lukenia* (Athi River Ridge (Kathini Ridge), Kenya), *L. elgonæ moyo* (NE Aberdares, Moyo Ridge, Kenya), *L. jansae* (Mbagathi Ridge, E. Ngong Hills, Kenya). Figures new entities, & nominotypical races of new spp., in color (both sexes & both surfaces). List of 9 other spp. known from this area, with notes on distribution. [P. B.]
- Sourès, B., "Contribution à l'étude des lépidoptères de la Tunisie. Famille Axiidæ (Cimeliidæ)" [in French]. *Bull. Soc. Sci. nat. Tunisie*, vol. 4: pp. 30-41, 4 pls. 1951. Describes & figures all stages of *Axia vaulogeri*. Notes on the other 5 spp. of this Mediterranean genus & family. Foodplants *Euphorbia* spp. [P. B.]
- Sperry, John L., "Two apparently new geometrid species from the southwest." *Bull. southern Calif. Acad. Sci.*, vol. 48: pp. 41-45. 1949. Describes as new *Racheospila noël* (Borrego, Calif.); *Chlorochlamys fletcheraria* (Organ Pipe Cactus National Monument, Arizona). [P. B.]
- Sperry, John L., "Four South American geometrid moths apparently undescribed." *Bull. southern Calif. Acad. Sci.*, vol. 50: pp. 159-163. 1951. Describes as new *Callipia breneimana* (Yungas del Palmar, 2000 m., Bolivia); *Spargania randallæ* (Pudahuel, Chile); *Salpis clarkei* (Cajon del Maypo, Santiago Prov., Chile Cordillera, El Canelo); & a "form" of *Callipia constantinaria*. [P. B.]
- Sperry, John L., "Notes on the genus *Glena* Hulst and description of new species. Lepidoptera, Geometridæ." *Bull. southern Calif. Acad. Sci.*, vol. 51: pp. 71-78, 13 figs. 1952. Describes as new *G. mcdunnougharia* (Granite Wells, San Bernardino Co., Calif.), *G. thomasaria* (S. Fork of Little Colorado R., White Mts., Arizona), *G. minor* (Montague Co., Texas); "*G. kirkwoodaria*, var.n." (var. of *G. interpunctata*). Notes on *interpunctata*, *quinquelinearia*, & *pexata*. [P. B.]
- Stallings, Don B., & J. R. Turner, "Four new species of *Megathymus* (Lepidoptera, Rhopalocera, Megathymidæ)." *Ent. News*, vol. 68: pp. 1-17, 4 pls. 1957. Describes as new *M. allix* (15 miles W. of Cameron, Arizona; foodplant *Agave utahensis*), *M. judithæ* (Hueco Mts., Hueco, Texas, 5300 ft.; foodplant *Agave parryi*), *M. carlsbadensis* (head of Yucca Canyon, Guadeloupe Mts., Carlsbad Cavern National Park, New Mexico, 5470 ft.; foodplant *Agave parryi* & perhaps *A. chisosensis*), *M. florenceæ* (Davis Mts., Ft. Davis, Texas, 6200 ft.; foodplant *Agave* sp., young specimens). Notes on spp. of *neumægeni* group. [P. B.]
- Stempffer, H., "Note sur *Lysandra thersites* (Cantener) et *Polyommatus icarus* ab. *icarinus* (Scriba)" [in French]. *Bull. Soc. ent. Mulhouse*, 1947: pp. 41-44, 4 figs. Compares these very similar forms; gives localities for former [P. B.]
- Stempffer, H., "Contribution à l'étude des Lycænidæ de la faune éthiopienne" [in French]. *Bull. Soc. ent. France*, vol. 56: pp. 119-128, 5 figs. 1951. Describes as new

- Deudorix (Hypokopelates) tenuivittata* (Ituri district, Irumu, Belgian Congo), *D. (Virachola) vansomeri* (Teita Hills, Kenya); *Hypolycæna amania* (Amani, Usambara); *Iolau bolissus gabonensis* (Port Gentil); *Epamera nolaensis* (Nola, Haute Sangha, Fr. Congo), *E. n. amania* (Amani, Usambara); *Uranothauma vansomeri* (Makueni, 3500 ft., 80 miles S. of Machakos, Ukamba district, Kenya). Gives first description of ♀ of *Deudorix leonina* & *Anthene talboti*. Note on "form" of *Hypolycæna buxtoni*. [P. B.]
- Stempffer, H., "Contribution à l'étude des Lycénidæ (Lep.) de la faune éthiopienne" [in French]. *Bull. Soc. ent. France*, vol. 57: pp. 114-121, 1 pl., 2 figs. 1952. Describes as new *Epamera æmulus apatosa* (20 miles S. of Mombasa); *Euchrysops jacksoni* (Madi Opei, N. Acholi, Uganda); *Termoniphys fumosa* (Chang, Cameroons) Describes ♀ of *Deudorix violetta*. Notes on *Liptena congoana*, *Syntarucus jeanneli*, *S. babaulti*, *Azania sitalces* (= *rubropuncta*). [P. B.]
- Stempffer, H., "Lépidoptères récoltés par A. Barbezat au cours de l'expédition lyonnaise 1951 au Garhwal. II. Lycénidæ" [in French]. *Bull. mens. Soc. linn. Lyon*, vol. 21: pp. 181-184. 1952. Annotated list of 13 spp., with descriptive notes on *Albulina metallica* & related spp. [P. B.]
- Stempffer, H., "Contribution à l'étude des lépidoptères Lycénidæ de l'Afrique équatoriale" [in French]. *Ann. Mus. Roy. Congo belge, Sci. Zool.*, vol. 49: 52 pp., 31 figs., 3 pls. 1956. Contribution to the study of the lycénids of equatorial Africa. Describes as new *Liptena flavicans æquatorialis*, *L. f. katera*, *L. stempfferi kigezi*; *Eresina bergeri*, *E. maesseni*, *E. katangana*, *E. saundersi*, *E. fontainei*, *E. rougeoti*, *E. theodori*, *E. cowratti*; *TOXOCHITONA* (type species: *gerda* Kirby); *Epitola decellei*; *Deudorix kayanza*; *Epamera fontainei*; *Zeritis fontainei*; *Chloroselas overlaeti*; *Termoniphys fontainei*, *T. kigezi*, *T. cærulea*, *T. albocærulea*. Notes on some other spp. [P. V.]
- Stempffer, H., "Lycénides", in *Les lépidoptères de l'Afrique noire française* [in French]. *Inst. franç. Afrique noire, Initiations africaines*, vol. 14, no. 3: 228 pp., 331 figs. 1957 This volume of the series "Initiations Africaines", published by the Institut Français d'Afrique Noire, Dakar, is devoted to the Lycénidæ of West Africa, and intended, like the series as a whole, for amateurs. In spite of the great knowledge of the author and of the value of his study, I think that it will be difficult to determine correctly a lycénid from West Africa, for an amateur, with this book, chiefly because of the absence of keys of determination. This publication could have been a useful catalogue, if the author had been able to give the references to original descriptions and the synonyms. [P. V.]
- Stempffer, H., "Un nouveau Lycénidæ (Lepidoptera)" [in French]. *Mem. Inst. franç. Afrique noire*, vol. 48: pp. 207-208, 2 figs. "1956" [1957]. Description of a new lycénid from the National Park of Niokolo-koba in Senegal, French West Africa: *Hypolycæna condamini*. [P. V.]
- Stempffer, H., & N. H. Bennett, "A revision of the genus *Teriomima* Kirby (Lepidoptera: Lycénidæ)." *Bull. Brit. Mus. (nat. Hist.)*, *Ent.*, vol. 3: pp. 77-104, 7 pls. 1953. Describes as new *BALIOCHILA* (type *Liptena aslauga*), *B. barnesi* (Minchi Valley, Manica, SE Trop. Africa), *B. neavei* (Mlanje, Nyasaland), *B. dubiosa* (Ochweni Forest, near Witu, Br. E. Africa), *B. nyasæ* (Mlanje, Nyasaland), *B. fragilis* (Meru, 6000 ft., Kenya), *B. minima amania* (Amani, Tanganyika), *B. lipara* (Mlanje, Nyasaland), *B. singularis* (Durban, S. Africa); *CNODONTES* (type *Durbania palida*), *C. vansomeri* (Migori Valley, 4200 ft., S. Kavirondo, Kenya). Redescribes *Teriomima*, the 6 spp. left in this genus, 5 spp. assigned to *Baliochila*, & the type of *Cnodontes*; gives present generic assignment of 22 spp. formerly placed in *Teriomima*. Revision based on ♂ genitalia, since external appearance is too variable for reliable determination. [P. B.]
- Storace, Luciano, "Ropaloceri dell'Africa orientale—VIII. Su alcune Pieridæ, can descrizione di nuove forme (Lep. Rhop.)" [in Italian]. *Ann. Mus. civ. Stor. nat.*, Genoa, vol. 68: pp. 335-350. 1956. Describes as new *Colotis pleione antinorii* (Mahaluoz, Abyssinia); also several "forms". Records of 20 pierids from E. Africa, with notes on distribution & variation. [P. B.]
- Storck, E., "Les Erebias français. Un essai de classification" [in French]. *Bull. Soc. ent. Mulhouse*, 1947: pp. 2-6, 1 fig. Presents suggested phylogeny (of living spp.), basing conclusions in large part on habitat & behavior. [P. B.]
- Sugi, Sigero, "Notes on *Mocis ancilla* Warren (Noctuidæ, Catocalinæ)" [in Japanese; English summary]. *Trans. lep. Soc. Japan*, vol. 8: pp. 17-18, 4 figs. 1957. Confirms occurrence in Japan; compares *M. ancilla* with *M. annetta*, figuring ♂ genitalia. [P. B.]

## C. MORPHOLOGY

- Arnold, J. W., "The hæmocytes of the Mediterranean Flour Moth, *Ephestia kühniella* Zell. (Lepidoptera: Pyralidæ)." *Canad. Journ. Zool.*, vol. 30: pp. 352-364, 18 figs. "1952" [1953]. Describes & figures blood cell types, & describes their development & their frequency in different stages. Spheroidocytes, most abundant type in prepupal stage, serve then for fat accumulation. [P. B.]
- Arvy, Lucie, "Histologie comparée de l'organe leucopoiétique juxta-alaire chez quelques lépidoptères" [in French]. *Bull. Soc. zool. France*, vol. 79: p. 165. 1954. Abstract.
- Arvy, L., & L. Coupin, "Presentation d'un élevage de *Malacosoma neustria* (lépidoptère Lasiocampidæ) et d'anomalies du sang chez cet insecte" [in French]. *Bull. Soc. zool. France*, vol. 77: p. 230. 1952.
- Avinoff, Andrey, "An analysis of color and pattern in butterflies of the Asiatic genus *Karanasa*." *Ann. Carnegie Mus.*, vol. 31: pp. 321-332, 2 pls. 1950. Presents charts classifying color and pattern types; discusses evolution of some elements. A by-product of the revision of *Karanasa* by Avinoff & Sweadner. [P. B.]
- Balazuc, J., "Une anomalie chez *Papilio podalirius* L. (Lep. Papilionidæ)" [in French]. *Bull. Soc. ent. France*, vol. 51: p. 149, 2 figs. 1947. Figures specimen with notched forewings, probably caused by tight pupal birdle. [P. B.]
- Barth, Rudolf, "O órgão odorífero de um macho do gênero *Eriopyga* (Lepidoptera, Noctuidæ, Hadeninæ)" [in Portuguese & German]. *Mem. Inst. Oswaldo Cruz*, vol. 49: pp. 599-640, 8 pls. 1951. Describes scent organ on abdomen of ♂ *E. lamptera*. [P. B.]
- Barth, Rudolf, "Estudos sobre os órgãos odoríferos de alguns Hesperiidæ Brasileiros" [in Portuguese & German]. *Mem. Inst. Oswaldo Cruz*, vol. 50: pp. 423-556, 14 pls. 1952. Describes general structure of scent scales in Hesperiidæ; structure of scent scales & wing areas which bear them in ♂♂ *Hylephila phyleus*, "*Thymelicus*" *vibex*, "*Hesperia*" *syrichtus*, *Heliopetes arsalte*, & *Eudamus simplicius*; metathoracic scent organs of "*Chiomara*" *gesta*, *Diphoridas phalenooides*, *Pellica bromias*, *Pachis geometrinus*, *Myscelus epigona*, "*H.*" *syrichtus*, & *H. arsalte*; & scent scales of ♀ *Ebrietas ecliptica*. Notes on sexual behaviour & use of scent by Hesperiidæ. [P. B.]
- Barth, Rudolf, "Os órgãos odoríferos masculinos de alguns Heliconiinae do Brasil" [in Portuguese & German]. *Mem. Inst. Oswaldo Cruz*, vol. 50: pp. 335-422, 9 pls. 1952. Describes location & structure of scent scales on wings of some spp. of "*Dione*" [*Agraulis*], "*Colenis*" [*Dryas*], *Eueides*, & *Heliconius*. [P. B.]
- Barth, Rudolf, "Considerações gerais sobre os órgãos odoríferos sexuais dos machos dos lepidopteros" [in Portuguese & German]. *Mem. Inst. Oswaldo Cruz*, vol. 51: pp. 187-202, 1 pl. 1953. ♀ scent generally functions to attract ♂♂; ♂ scent, as a stimulus to mating. Notes constancy of type of scent organ in some groups of Lepidoptera, & species-constancy in fine structure. Scent organs of nocturnal Lepidoptera are in general more concentrated, complex, & evolved than those of diurnal spp. Figures types of scent scales in some Nymphalidæ. [P. B.]
- Barth, Rudolf, "Estudos sobre as placas das glândulas de cera da lagarta de *Tolype serralta* (Lepidoptera, Lasiocampidæ)" [in Portuguese & German]. *Mem. Inst. Oswaldo Cruz*, vol. 51: pp. 262-275, 3 pls. 1953. Describes paired wax-secreting glands on under surface of 1st, 3rd, & 8th larval abdominal segments. [P. B.]
- Barth, Rudolf, "O órgão odorífero abdominal do macho de *Caligo arisbe* Hbn. (Lepidoptera, Brassolidæ)" [in Portuguese & German]. *Mem. Inst. Oswaldo Cruz*, vol. 51: pp. 203-226, 5 pls. 1953. Describes scent organ on abdomen & apparatus for scent distribution on hind wing (♂). [P. B.]
- Barth, Rudolf, "Órgãos odoríferos masculinos do algumas Syntomidæ Brasilieras (=Ctenuchidæ; Lepidoptera)" [in Portuguese & German]. *Mem. Inst. Oswaldo Cruz*, vol. 51: pp. 227-262, 7 pls. 1953. Describes small ♂ scent scale areas on foreleg of *Cosmosoma ignidersia* & on hind wing of *Androcharta diversipennis* (both of which mate in daytime), & complex scent organ of ♂ *C. auge* (which mates at night). [P. B.]
- Barth, Rudolf, "Estudos histológicos das células glandulares dos insetos peçonhentos. I. Os órgãos urticantes da lagarta de *Automeris incisa* Walker (Lepidoptera, Hemileucidæ)" [in Portuguese & German]. *Mem. Inst. Oswaldo Cruz*, vol. 52: pp. 93-124, 8 pls. 1954. Describes urticating hairs & associated unicellular poison glands of larva. [P. B.]
- Barth, Rudolf, "Estudos histológicos nas células glandulares dos insetos peçonhentos. II. Os órgãos urticantes da lagarta de *Megalopyge albicollis superba* Edwards (Lepi-



- doptera, Megalopygidae]" [in Portuguese & German]. *Mem. Inst. Oswaldo Cruz*, vol. 52: pp. 125-147, 4 pls. 1954. Describes hypodermal poison glands, automatic "pump", & urticating hairs of larva. [P. B.]
- Barth, Rudolf, "Estudos sôbre os órgãos odoríferos de alguns Hesperiidæ Brasileiros. 2ª. parte: estudos histológicos" [in Portuguese; German & English summaries]. *Mem. Inst. Oswaldo Cruz*, vol. 52: pp. 261-285, 5 pls. "1954" [1955]. Describes scent organs of metathoracic apophyses of *Sebaldia busirus*, *Pellicia bromias*, *P. polycator*, *Heliopetes arsalte*, & "*Hesperia*" *syrichtus*. Organs associated with hair pencils on hind tibia. [P. B.]
- Barth, Rudolf, "O órgão odorífero do macho de *Mocis repanda* Fabr., 1794 (Lepidoptera, Noctuidæ, Sarrothripinæ)" [in Portuguese & German; English summary]. *Mem. Inst. Oswaldo Cruz*, vol. 52: pp. 287-314, 8 pls. "1954" [1955]. Describes structure & operation of scent organs on 1st & 3rd pairs of legs. [P. B.]
- Barth, Rudolf, & José Lôbo Junqueira, "Estudos histológicos nas células glandulares dos insetos peçonhentos. III parte: Sôbre as áreas glandulares da lagarta de *Sibine nesea* (Stoll-Cramer, 1781) (Lepidoptera, Eucleidæ)" [in Portuguese & German; English summary]. *Mem. Inst. Oswaldo Cruz*, vol. 52: pp. 497-516, 6 pls. "1954" [1955]. Describes poison apparatus of larva. Glands on 7th & 8th abdominal segments open by spiny projections of body wall, which break off & work their way into tissue of animal touching them. [P. B.]
- Barth, Rudolf, "Estudos histológicos das células glandulares dos insetos peçonhentos. IV parte: As cerdas dos espinhos da lagarta de *Sibine nesea*" [in Portuguese & German]. *Mem. Inst. Oswaldo Cruz*, vol. 54: pp. 359-372, 7 figs. June 1956. Describes urticating spines on warty projections of larva, & associated poison glands (these are separate from structures described in last paper). [P. B.]
- Barth, Rudolf, "Maennliche Duftorgane Brasilianischer Lepidopteren. 13. Mitteilung: Die Flugeldrüsen einiger Pteropterinae (Arctiidæ)" [in German; Portuguese summary]. *An. Acad. Brasil. Cienc.*, vol. 28: pp. 321-331, 15 figs. 1956. Describes scent glands of *Melese cruenta*, *Bertholdia specularis*, & *Paranerita campos-portoi* (on forewing), & of *Automolis juvenis* (on hind wing). [P. B.]
- Barth, Rudolf, "Maennliche Duftorgane Brasilianischer Lepidopteren. 14. Mitteilung: *Phellinodes zikani* Prout (Geometridæ)" [in German; Portuguese summary]. *An. Acad. Brasil. Cienc.*, vol. 28: pp. 333-340, 7 figs. 1956. Describes scent gland & hair pencil on fore leg. Summarizes distribution of scent organs of ♂ of 5 subfamilies of Geometridæ, each of which seems to have characteristic types. [P. B.]
- Barth, Rudolf, "Maennliche Duftorgane Brasilianischer Lepidopteren. 15. Mitteilung: *Lamprostrola pascuala* Schs. (Arctiidæ, Lithosiinæ)" [in German; Portuguese summary]. *An. Acad. Brasil. Cienc.*, vol. 28: pp. 341-355, 18 figs. 1956. ♂ has 3 types of scent glands: on hind wing, under 6th abdominal tergite, & under 7th abdominal sternite; all are described. [P. B.]
- Barth, Rudolf, "Maennliche Duftorgane Brasilianischer Lepidopteren. 16. Mitteilung: *Metalobosia cuprea* Schs. (Arctiidæ, Lithosiinæ)" [in German; Portuguese summary]. *An. Acad. Brasil. Cienc.*, vol. 29: pp. 129-140, 16 figs. 1957. Describes abdominal scent organ of ♂. [P. B.]
- Barth, Rudolf, "Maennliche Duftorgane Brasilianischer Lepidopteren. 17. Mitteilung: *Illice fasciata* Schs. (Arctiidæ, Lithosiinæ)" [in German; Portuguese summary]. *An. Acad. Brasil. Cienc.*, vol. 29: pp. 141-152, 15 figs. 1957. Describes ♂ scent organs on both wings & in abdomen. [P. B.]
- Barth, Rudolf, "Os tubos abdominais dos machos de alguns Arctiidæ e Ctenuchidæ do Brasil" [in Portuguese; German summary]. *Mem. Inst. Oswaldo Cruz*, vol. 54: pp. 499-515, 21 figs. "1956" [1957]. Describes scent organ in form of bristle-bearing eversible tubes with glandular area, opening ventrally between 8th & 9th abdominal segments of ♂, in *Aclytia heber* & *Delphyre suffusa* (Ctenuchidæ), & in *Eucereon discolor* & *Galethalea pica* (Arctiidæ). [P. B.]
- Barth, Rudolf, "Ueber die Hautdrüsen des Maennchens von *Odozana obscura* Schs. Arctiidæ, Lithosiinæ)" [in German; Portuguese summary]. *Rev. Brasil. Biol.*, vol. 17: pp. 97-114, 24 figs. 1957. Describes 9 sets of dermal glands; 1 appears to be rudimentary, 2 probably secrete substances preventing evaporation or mingling of other secretions, & 6 produce sexual odors, perhaps all different & used in successive stages of courtship. [P. B.]
- Beams, H. W., & Everett Anderson, "Light and electron microscope studies on the striated border of the intestinal epithelial cells of insects." *Journ. Morph.*, vol. 100: pp. 601-619, 5 pls. 1957. Study on larvæ of *Malacosoma*. [P. B.]

- Bittner, A., "Untersuchungen über den Proventriculus der grossen Wachsmotte (*Gal-leria mellonella* L.)" [in German]. *Wiss. Zeitschr. Univ. Greifswald*, vol. 3: pp. 519-531, 9 figs. "1953/1954". Describes morphology, histology, & function of proventriculus. Bibliography of 149 titles on *G. mellonella*. [P. B.]
- de Boer, S., "Bilateraal gynandromorph van *Lymantria dispar* L." [in Dutch]. *Ent. Berichten*, vol. 13: p. 236, 1 fig. 1951.
- Brunold, E., "Die Entwicklung des weiblichen Genitalapparates von *Solenobia triquetrella* während des Puppenstadiums. (Vorläufige Mitteilung)" [in German]. *Revue suisse Zool.*, vol. 62: pp. 208-210, 4 figs. 1955. Preliminary account of development of ♀ genitalia. [P. B.]
- de Buen, Ana Maria, "Algunas observaciones sobre la citología de las glándulas protorácicas de *Halysidota caryæ* Harr. (Lepidoptera)" [in Spanish]. *An. Inst. Biol.*, Mexico, vol. 20: pp. 465-472, 13 figs. 1949. Study of histology of prothoracic gland & changes in nuclear form during last 2 larval instars. [P. B.]

### E. DISTRIBUTION & PHENOLOGY

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- Allan, P. B. M., "*Sterrhia serpentata* Hufnagel in England." *Ent. Rec. & Journ. Var.*, vol. 67: pp. 76-79. 1955. History of confusion over identity of this sp. [P. B.]
- Allan, P. B. M., "The Middle Copper." *Ent. Rec. & Journ. Var.*, vol. 68: pp. 68-73. 1956. On possible surviving colony of *Lycæna virgaureæ* in Britain. [P. B.]
- Allard, H. A., & E. C. Leonard, "Animal life of the Cabin Mountain — Stony River Dam area." *Proc. W. Virginia Acad. Sci.*, vol. 24: pp. 31-35. 1953. Includes records of 23 spp. of butterflies. [P. B.]
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- Amsel, Hans-Georg, "Die Deutsche Afghanistan-Expedition 1956 der Landessammlungen für Naturkunde in Karlsruhe" [in German]. *Beitr. Naturkundl. Forsch. Südwestdeutschland*, vol. 16: pp. 5-29, 3 pls., 1 map. 1957. Report of expedition; some notes on Lepidoptera. [P. B.]
- "An Old Moth Hunter" [P. B. M. Allan], "*Hadena blenna* Hübner in England." *Ent. Rec. & Journ. Var.*, vol. 64: pp. 174-177. 1952. Perhaps a native, though local, sp. (not taken in 90 years); notes on biology. [P. B.]
- "An Old Moth Hunter" [P. B. M. Allan], "A matter of coppers." *Ent. Rec. & Journ. Var.*, vol. 69: pp. 157-158. 1957. Notes recent northward spread of *Lycæna virgaureæ* in Europe; suggests that climate has changed enough to permit survival of this extirpated sp. in Britain at present. [P. B.]
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- Anonymous, "Immigrant insect records for the year 1953." *Proc. Hawaiian ent. Soc.*, vol. 15: p. 371. 1954. Includes *Blepharomastix acutangulalis*, new to Hawaii. [P. B.]
- Anonymous, "*Cucullia fraudatrix* Ev., in N. O." [in German]. *Ent. Nachrichtenbl.*, Vienna, vol. 2, no. 3: p. 6. 1955. New record for Austria. [P. B.]
- Anonymous, "Sammelanweisungen" [in German]. *Zeitschr. wiener ent. Ges.*, vol. 39: pp. 91-93, 133-135, 173-174, 206-208, 237-239, 269-271, 300-303, 364-368. 1954. Notes on where to find interesting spp. throughout the season in lower Austria. [P. B.]
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- Augustin, J. L., "Capture de lépidoptères dans les Basses Pyrénées" [in French]. *Rev. Franç. Lépid.*, vol. 15: pp. 134-135. 1956. List of 'Rhopalocera' (only 4 'Heterocera' are cited) from the western Pyrenees. The nomenclature is generally old. [P.V.]
- Aubert, Jacques-F., "Une géométride nouvelle pour la faune française: *Entephria* (*Cidaria* auct.) *contestata* Vorbr. (Note préliminaire)" [in French]. *Bull. mens. Soc. linn. Lyon*, vol. 21: pp. 226-227, 4 figs. 1952. New French record; figures holotype & allotype. [P.B.]
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- Barbotin, M. F., "Le bombyx processionnaire du pin dans le Morbihan (*Cnethocampa pityocampa* Schiff)" [in French]. *C. R. Sect. Sci. Congr. Soc. savantes*, 1951: pp. 79-83, 1 map. 1952. Note on range extension in France, biology, & control. [P.B.]
- Baynes, E. S. A., "*Polychrisia moneta* Fabr., (Golden Plusia) in Ireland." *Ent. Gaz.*, vol. 4: p. 286. 1953. Second record; species perhaps newly established. [P.B.]
- Baynes, E. S. A., "The Lepidoptera of Glenageary, Co. Dublin." *Ent. Gazette*, vol. 8: pp. 151-160. 1957. Annotated list.
- Beirne, Bryan P., "Zoogeographical significance of distributional changes in British Macrolepidoptera." *Trans. Roy. ent. Soc. London*, vol. 107: pp. 117-123. 1955. Believes that long-term climatic changes are responsible for population fluctuations not attributable to human agency. Maintains that present ranges of British species may properly be used to deduce origin and history in Britain of these species, since only about 3% are known to have undergone such fluctuations. [P.B.]
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- Benander, Per, "Catalogus insectorum Sueciæ. Additamenta ad pars VI. Microlepidoptera." *Opusc. ent.*, vol. 18: pp. 89-101. 1953. List of spp. & localities, supplementary to original catalogue of Swedish micros; 75 spp. are added, bringing Swedish list to 1470 (14 doubtful). [P.B.]
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- Bentincq, G. A., "Vangsten van zeldzame Lepidoptera in 1954" [in Dutch; English summary]. *Ent. Berichten*, vol. 15: pp. 393-394. 1955. Records of rare spp. in Holland. [P.B.]
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#### F. BIOLOGY AND IMMATURE STAGES

- Blair, K. G., "Some records of *Gelis* Thunberg (= *Pezomachus* Gravenhorst) (Hym., Ichneumonidæ)." *Ent. mo. Mag.*, vol. 87: pp. 194-195. 1951. Records various spp. as parasites of *Depressaria heracliana*, *Coleophora lutipenella*, and hyperparasites of some macrolepidoptera (primary parasites listed). [P.B.]
- Blais, J. R., "The relationship of the Spruce Budworm (*Choristoneura fumiferana*, Clem.) to the flowering condition of Balsam Fir (*Abies balsamea* (L.) Mill.)." *Canad. Journ. Zool.*, vol. 30: pp. 1-29, 11 figs. 1952. Populations are larger on flowering trees, which are preferred for oviposition; they provide sites for hibernacula (in flower scars) & a succulent food source in early spring (staminate flowers). Larval development was accelerated when pollen was included in diet, & retarded if larvæ were forced to eat old growth exclusively. [P.B.]
- Blanchard, Everardo E., "Descripcion de un himenoptero (Braconidæ) parasito de *Riculoides gallicola* sp. nov." [in Spanish]. *An. Soc. cient. Argentina*, vol. 154: pp. 78-80, 1 fig. 1952. Parasite reared from new sp. of tortricid described by Pastana in adjoining paper. [P.B.]
- Blest, A. D., "The function of eyespot patterns in the Lepidoptera" [in English; German summary]. *Behaviour*, vol. 11: pp. 209-256, 14 figs. 1957. Demonstrates that large eyespot patterns (such as those of *Nymphalis io*) release escape responses in birds, & that small eyespot patterns direct the attacks of birds toward themselves. The responses of the birds are innate; the former response, at least, may be suppressed after experience with edible butterflies which have eyespots. The protective value of eyespots, either in frightening predators or in directing their attacks to parts which are not vital, seems well established. [P.B.]
- Blickenstaff, C. C., K. D. Arbutnot, & H. M. Harris, "Parasites of the European Corn Borer in Iowa." *Iowa State Coll. Journ Sci.*, vol. 27: pp. 335-379, 9 figs. 1953. Lists numerous parasites of *Pyrausta nubilalis*, & discusses their status in Iowa, biological notes. [P.B.]
- Blickenstaff, Carl C., "The nature of damage to field corn by the Corn Earworm, *Heliothis zea* (Boddie), and the Fall Armyworm, *Laphygma frugiperda* (A. and S.)." *Iowa State Coll. Journ. Sci.*, vol. 32: pp. 133-135. 1957. Abstract.
- Blunck, H., "Zur Kenntnis des Massenwechsels von *Pieris brassicæ* L. mit besonderer Berücksichtigung des Dürrejahres 1947" [in German]. *Zeitschr. angew. Ent.*, vol. 32: pp. 141-171, 5 figs. 1950. Analysis of factors producing fluctuations in numbers of *P. brassicæ* and *P. rapæ*: weather, parasites of various stages. In the hot, dry summer of 1947 both species produced complete third generation in Germany. [P.B.]
- Blunck, H., "Parasiten und Hyperparasiten von *Pieris rapæ* L." [in German]. *Zeitschr. Pflanzenkrankh.*, vol. 58: pp. 25-54, 14 figs. 1951. Describes early stages & biology of *Apanteles rubecula*, & gives notes on 2 other parasites of *P. rapæ*; notes on parasitization of *Aporia crataegi*. [P.B.]
- Blunck, H., "Zur Kenntnis der Hyperparasiten von *Pieris brassicæ* L. 4. Beitrag: *Gelis cf. transfuga* Först. 5. Beitrag: *Hemiteles similimus sulcatus*. Die Metamorphose"

- [in German]. *Zeitschr. angew. Ent.*, vol. 33: pp. 217-267, 26 figs.; pp. 420-459, 43 figs. 1951; 1952. Morphology and biology of these hyperparasites attacking *Apanteles*. [P. B.]
- Blunck, Hans, "Zur Kenntnis der Hyperparasiten von *Pieris brassicae* L. 6. Beitrag: *Gelis corruptor* Först. und *Gelis faunus* Först." [in German]. *Beitr. Ent.*, vol. 2: pp. 94-109, 3 figs. 1952. Morphology & biology of *G. corruptor*, parasite of *Apanteles*; lists alternative hosts, including Lepidoptera. [P. B.]
- Blunck, Hans, "Über die Schlüpfzeit der Falter bei *Aporia crataegi* L. und *Pieris brassicae* L." [in German]. *Zool. Anz.*, vol. 151: pp. 237-252, 10 figs. 1953. Adults of *A. crataegi* emerge at any time; in *P. brassicae* there is a strong peak of emergence in morning hours. Time of emergence not controlled by light, temperature, or humidity; suggests that it is associated with greater ionization of air in morning. [P. B.]
- Blunck, Hans, "Mikrosporidien bei *Pieris brassicae* L., ihren Parasiten und Hyperparasiten" [in German]. *Zeitschr. angew. Ent.*, vol. 36: pp. 316-333, 15 figs. 1954. *Nosema polywora* and other microsporidians attacking the *P. brassicae* host-parasite complex. [P. B.]
- Blunck, Hans & Margot Janssen, "Zur Kenntnis von *Hemiteles melanarius* Grav. (Ichn.). Ein Fall des Übergangs vom Ekto- zum Endoparasitismus" [in German; English summary]. *Zeitschr. Pflanzenkrankh.*, vol. 64: pp. 600-606, 2 figs. 1957. Describes biology of parasite of *Pieris brassicae* & many other insects. [P. B.]
- Bøhm, F., "*Lysandra hylas* ab ovo" [in French]. *Bull. Soc. ent. Mulhouse*, 1947: pp. 33-36. Describes early stages & rearing on *Anthyllis vulneraria*. [P. B.]
- Boer Leffef, W. J., "Lepidopterologische opmerkingen" [in Dutch]. *Ent. Berichten*, vol. 14: pp. 361-362. 1953. Rearing notes on *Rhyparia purpurata*, & other miscellaneous notes. [P. B.]
- Bogush, P. P., "Sexual activity and duration of periods connected with oviposition in the Beet Armyworm" [in Russian]. *Trudy Inst. Zool. Parasitol. Akad. Nauk Uzbekskoi SSR*, vol. 1: pp. 457-464. 1954. *Laphygma exigua*. [Not seen].
- Bogush, P. P., "Parasites of the Cotton Boll-worm *Chloridea obsoleta* F. (Lepidoptera, Agrotidae) in Turkmenistan" [in Russian; English summary]. *Rev. Ent. URSS*, vol. 36: pp. 98-107. 1957.
- Boldaruev, V. O., "Parasity sibirskogo shelkopyrada (*Dendrolimus sibiricus* Tshtv.) v Vostochnoy Sibiri" [in Russian; Parasites of Siberian lasiocampid in eastern Siberia]. *Ent. Obozrenie*, vol. 32: pp. 56-68, 3 figs. 1952. Lists 22 parasites (Hymenoptera & Diptera). Describes external characters of some of them. [N. O.]
- Boldaruev, V. O., "Fertility and food specialization of the Siberian Moth (*Dendrolimus sibiricus* Tshtv.)" [in Russian]. *Zool. Zhurn.*, vol. 34: pp. 810-821. 1955. [Not seen].
- Bollmann, Hans-Günther, "Die Raupen mitteleuropäischer Pyraustinæ (Lepidoptera: Pyralidæ)" [in German]. *Beitr. Ent.*, vol. 5: pp. 521-639, 255 figs. 1955. Describes external morphology; gives keys to larvæ of subfamilies of Pyralidæ, genera of Pyraustinæ, & spp. of these genera. Describes larvæ of 47 of some 90 central European spp., and a few exotic spp. An impressive work. [P. B.]
- Bonhomme, Ch., "Contrôle histologique du système nerveux des chenilles de noctuides paralysées par les ammophiles" [in French]. *Bull. Acad. Sci. Lettres Montpellier*, no. 78/81: pp. 32-34. 1952. Effects of wasp venom on central nervous system of noctuid larvæ (species not named). [P. B.]
- Boucly-Uriason, M., "La chenille de *Galleria mellonella* L. et son évolution entre deux mues successives" [in French]. *Bull. Soc. zool. France*, vol. 76: pp. 171-177, 3 figs. 1951. Describes changes in appearance & behaviour which take place in the course of a single larval instar. [P. B.]
- Bourgogne, Jean, "Les lépidoptères" [in French]. *Nature*, Paris, no. 3194: pp. 175-181, 5 pls., 13 figs. 1951. Interesting popular account of biology. [P. B.]
- Bourquin, Fernando, "Metamorfosis de *Syssphinx molina obtusa* Strassberger 1952. Lep. fam. Adelocephalidæ" [in Spanish; English summary]. *Acta zool. lilloana*, vol. 7: pp. 403-408, 1 pl., 2 figs. 1949. Describes & figures egg & larva; also figures adults & ♂ genitalia. Foodplant *Erythrina cristagalli*. [P. B.]
- Bourquin, Fernando, "Nota sobre la metamorfosis de *Lineodes hamulalis* Hamps. (Lep. fam. Pyraustidæ)" [in Spanish; French summary]. *Acta zool. lilloana*, vol. 7: pp. 419-422, 1 pl., 4 figs. 1949. Gives figures of all stages & setal pattern of larva; foodplant *Cestrum parqui*. [P. B.]
- Bourquin, Fernando, "Notas sobre la metamorfosis de *Acipitilia alternaria* Zeller 1874. Lep. fam. Pterophoridaæ" [in Spanish; French summary]. *Acta zool. lilloana*, vol. 7:

- pp 415-417, 1 pl., 1 fig. 1949. Gives figures of all stages & larval setal pattern. Foodplant *Echium plantagineum*. [P. B.]
- Bourquin, Fernando, "Notas sobre la metamorfosis de *Arrhenophanes perspicilla* (Stoll) 1790 (Lep. fam. Arrhenophanidae" [in Spanish; English summary]. *Acta zool. lilloana*, vol. 7: pp. 409-413, 1 pl., 3 figs. 1949. Describes & figures larva & pupa & figures adults. Larvæ live in cases attached to *Polyporus* sp. & made of fragments of the fungus, which is the probable foodplant. [P. B.]
- Bourquin, Fernando, "Notas sobre la metamorfosis de *Chlanidoptera patagiata* Berg 1877. Lep. fam. Arctiidae" [in Spanish; English summary]. *Acta zool. lilloana*, vol. 7: pp. 393-394, 1 pl., 3 figs. 1949. Describes & figures larva & pupa & figures adults; foodplant *Chloræa piquichen*. [P. B.]
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- Bourquin, Fernando, "Notas sobre la metamorfosis de *Euglyphys bridarolliana* Köhler 1949. Lep. fam. Lasiocampidae" [in Spanish; French summary]. *Acta zool. lilloana*, vol. 7: pp. 385-391, 1 pl., 3 figs. 1949. Describes & figures all stages; foodplant *Ocolia acutifolia*. [P. B.]
- Bourquin, Fernando, "Notas sobre la metamorfosis de *Heliconius phyllis* F. 1775. Lep. fam. Heliconiidae" [in Spanish; French summary]. *Acta zool. lilloana*, vol. 7: pp. 395-399, 1 pl., 2 figs. 1949. Describes & figures all stages; foodplant *Passiflora cerulea*. [P. B.]
- Bovey, Paul, "Un nouveau ravageur en Europe: l'écaille fileuse (*Hyphantria cunea* Drury)" [in French; German summary]. *Schweiz. Zeitschr. Forstwesen*, vol. 105: pp. 1-12, 2 pls., 1 fig., 1 map. 1954. European distribution, biology, & control. [P. B.]
- Bowden, S. R., "Interrupted imaginal development: experiments on pupæ of *Pieris napi*." *Entomologist*, vol. 88: pp. 107-108. 1955. Return of pupæ to cold storage after period at room temperature resulted in crippling of some adults. [P. B.]
- Box, Harold E., "*Palpozenilla palpalis* (Aldr.), a tachinid parasite of sugar cane moth borers (*Castnia* and *Diatraea*)." *Proc. Hawaiian ent. Soc.*, vol. 14: pp. 485-490, 2 figs. 1952.
- Brazzel, J. R., & D. F. Martin, "Behaviour of Pink Bollworm larvæ." *Journ. econ. Ent.*, vol. 48: pp. 677-679. "1955" [1956]. Studies in infesting cotton bolls with eggs of *Pectinophora gossypiella* showed that larvæ were cannibalistic, and that they could also, when newly hatched, move to other bolls and become established. [W. C.]
- Brazzel, J. R., & D. F. Martin, "Oviposition sites of the Pink Bollworm on the cotton plant." *Journ. econ. Ent.*, vol. 50: pp. 122-124. 1957. Eggs mostly on vegetative parts of cotton plant for first 6 weeks; more eggs on vegetative than on fruiting part until August. *Pectinophora gossypiella*. [W. C.]
- Brčák, Jaroslav, "*Hepialus lupulinus* L. škůdce konvalinek v prazských zahrádkách" [in Czech]. *Ochrana Rostlin*, vol. 23: pp. 236-238, 3 figs. 1950. Larvæ found in Prague as pests of roots of Lily-of-the-Valley. [J. M.]
- Brčák, Jaroslav, "Motýli našich rašelinišť" [in Czech]. *Ochrana Přírody*, vol. 5: pp. 77-80. 1950. Gives some information about Lepidoptera of peatbogs in Czechoslovakia, without precise localities. [J. M.]
- Breeland, S. G., "Winter studies on the Armyworm, *Pseudaletia unipuncta*, in Tennessee." *Bull. ent. Soc. Amer.*, vol. 3: p. 32. 1957. Abstract.
- Bretherton, R. F., "The occurrence of double broods among moths in north-west Surrey." *Ent. Gaz.*, vol. 4: pp. 287-295. 1953. In Macrolepidoptera and Pyralidae.
- Broekhuysen, G. J., "The 'Potato Grub' (*Agrotis* sp.). A serious pest of potatoes on the island of Tristan da Cunha." *Journ. ent. Soc. southern Africa*, vol. 12: pp. 96-108, 3 figs. 1948. Biology and control of *Peridroma porphyrea*. [P. B.]
- Brower, Jane Van Zandt, "Experimental studies of mimicry in some North American butterflies." *Nature*, vol. 180: p. 444. 1957. Shows effectiveness of mimetic resemblance of *Limenitis archippus* to *Danaus plexippus*, and of *Papilio troilus* & *P. polyxenes* to *Battus philenor*, using jays as predators. [P. B.]
- Brower, Lincoln P., & Jane Van Zandt Brower, "Cryptic coloration in the anthophilous moth *Rhododipsa masoni*." *Amer. Nat.*, vol. 90: pp. 177-182, 2 figs. 1956. Brightly colored noctuid is inconspicuous in its normal feeding position on flowers of *Gailardia aristata* in Colorado. Authors demonstrate that moths at rest tend to assume the concealing position more frequently than chance would predict. [P. B.]

- Brown, S. C. S., "The Spotted Flycatcher killing and eating a Red Admiral butterfly. (Lep.)" *Journ. Soc. Brit. Ent.*, vol. 3: p. 45. 1949.
- Brown S. C. S., "*Loxostege palealis* (Schiff.) (Lep., Pyraustidæ) carrying the pollenia of an orchid." *Ent. mo. Mag.*, vol. 90: p. 119. 1954.
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