

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, 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* and the *Journal* are listed without abstract. Readers, not in North America, interested in assisting with this very large task, are invited to write Dr. BELLINGER (Dept. of Natural Sciences, San Fernando Valley State College, Northridge, Calif., U. S. A.). Abstractors' 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.] — T. IWASE; [J.M.] — J. MOUCHA; [E.M.] — E. G. MUNROE; [N.O.] — N.S. OBRATZOV; [C.R.] — C. L. REMINGTON; [J.T.] — J. W. TILDEN; [P.V.] — P. E. L. VIETTE.

A. GENERAL

- Brown, F. Martin, Donald Eff, & Bernard Rotger, *Colorado butterflies*. 368 pp., figs. Denver Museum of Natural History. 1957. Book assembled from parts published separately in the Museum's *Proceedings*. Descriptions & records of all spp. known from Colorado. See reviews in *Lepid. News*, vol.9: p.21; vol.11: pp.57-60.
- Corbet, A. Steven, & H. M. Pendlebury, *The butterflies of the Malay Peninsula*. 2nd ed. 568 pp., 55 pls., 159 figs. London: Oliver & Boyd. 1956. See review in *Lepid. News*, vol.11: pp.60-62.
- da Costa Lima, A., "Anotações ao 6º tomo de *Insetos do Brasil*" [in Portuguese]. *Mem. Inst. Oswaldo Cruz*, vol.50: pp.243-247. 1952. Corrections to the author's work on Brazilian Lepidoptera. [P.B.]
- Forbes, William T. M., "Lepidoptera." In Kessel, E. L., ed., *A Century of Progress in the Natural Sciences*: pp.540-555. San Francisco: California Academy of Sciences. 1955. Review of developments of the past century in the study of Lepidoptera; classification is covered most thoroughly, but advances in other fields are mentioned. References to the most important papers on special groups or subjects make this article especially valuable. [P.B.]
- Gaul, Albro, T., *The wonderful world of insects*. 290 pp., pls. New York: Rinehart & Co. 1953.
- Hayward, Kenneth Ioannes, *Genera et species animalium argentinorum. Tomus primus. Insecta Lepidoptera (Rhopalocera), familia Hesperüdarum, subfamilia Pyrrhopyginarum et Pyrginarum*. 389 pp., 27 pls. Bonariæ: Guillermo Kraft Lts. 1948. See review in *Lepid. News*, vol.3: p.66.
- Hayward, Kenneth Ioannes, *Genera et species animalium argentinorum. Tomus secundus. Insecta. Lepidoptera (Rhopalocera), familia Hesperüdarum, subfamilia Hesperinarum*. 388 pp., 26 pls. Bonariæ: Kraft. 1950. Covers Hesperinæ of Argentina. Keys to spp.; original & amplified descriptions; figures of adults & ♂ genitalia of most spp. Notes on biology are practically limited to foodplant records. A magnificently produced volume, though the plates are poorly printed in comparison with vol.1. [P.B.]
- Kirkpatrick, T. W., *Insect life in the tropics*. xiv + 311 pp., 146 figs. London: Longmans Green. 1957. General account of insect structure & biology, with special reference to tropical regions. [P.B.]

- Klots, Alexander B., *A field guide to the butterflies of North America, east of the Great Plains*. xvi + 349 pp., 40 pls., 14 figs. Boston: Houghton Mifflin Co. 1951. See review in *Lepid. News*, vol.5: pp.107-108.
- Langer, Torben W., *Nordens dagsommerfugle*. 344 pp., 20 pls., figs. Copenhagen: Einar Munksgaard. 1958. See review in *Lepid. News*, vol.12: pp.205-206.
- Portier, P., *La biologie des lépidoptères* [in French]. 643 pp., 1 pl., 392 figs. Paris: Lechevalier (*Encycl. Ent., sér. A*, vol.23). 1949. A good account of the morphology, physiology, habits, etc., of all stages; marred by highly erratic nomenclature. [P.B.]
- Reiprich, Andrej, *Motyle slovenska. Oblast slovenskeho raja* [in Czech; German & Russian summaries]. 553 pp., 68 pls., 137 figs. Bratislava: Slovak Acad. Sci. 1960. See review in the *Journal*, vol.13: p.246.
- Schmidlin, A., "Die Schmetterlingsfamilie Hesperiidæ (Dickkopffalter)" [in German]. *Ent. Nachrichtenbl.*, Burgdorf, vol. 2: pp.63-70, 84-86, 88-91; vol.3: pp.3-11. 1948, 1949. Describes morphology & biology of family; gives a key to the Swiss spp., and outlines, for each, distinguishing characteristics, flight period, Swiss & general distribution, foodplant, & variation. [P.B.]
- Takeuchi, Kichizo, & Teiso Esaki, *Colored illustrations of the insects of Japan* [in Japanese]. 190 pp., 68 pls. Osaka. 1955. See review in *Lepid. News*, vol.12: p.56.
- Villiers, A., "Les lépidoptères de l'Afrique noire française. Fasc. 1, Introduction, structure, moeurs, récolte, conservation, classification" [in French]. *Initiations africaines*, vol.14: 84 pp., 109 figs. 1957. Fascicle on the general characters of the Lepidoptera. The different parts are: morphology & anatomy (egg, larva, pupa, imago); ethology, with some photos of West African butterflies; geographical distribution of Lepidoptera in West Africa; collecting & storing, and a list of the families of Lepidoptera. The work draws extensively on the Lepidoptera part by Bourgogne of Grassé's *Traité de Zoologie*. [P.V.]
- Williams, Evelyn Gilstrap, "Butterflies and moths." *School Nature League Bull.*, ser.18, no.1: 4 pp., 11 figs. 1947. Popular account.
- Wright, A. Gilbert, *Common Illinois insects and why they are interesting*. 32 pp., 3 pls., figs. Springfield: Illinois State Museum. 1951.
- Wynter-Blyth, M. A., "Butterfly collecting in India." *Journ. Bombay nat. Hist. Soc.*, vol.50: pp.885-893, 1 pl. 1952.
- Yokoyama, Mitsuo, & Teiso Esaki, *Colored illustrations of the butterflies of Japan* [in Japanese]. 136 pp., 63 pls., figs. Osaka. 1955. See review in *Lepid. News*, vol.12: p.56.

B. SYSTEMATICS AND NOMENCLATURE

- Abbott, Walter, Lawrence S. Dillon, & Robert, S. Shrode. "Geographic variation in *Pieris protodice* Boisduval and Leconte (Lepidoptera: Pieridæ)." *Wasmann Journ. Biol.*, vol. 18: pp. 103-127, 2 pls., 1 fig. 1960. From a statistical analysis of size and depth of color in 523 specimens, the authors conclude that this species varies continuously over the greater part of North America; accordingly, the names *sisymbrii*, *occidentalis*, *calyce*, *vernalis*, & *nelsoni* are sunk to *protodice*. *P. beckeri* is perhaps also a synonym. The correlation of Variation with geographic location, altitude, & climate is discussed. Taxonomic history of the group is reviewed. [P. B.]
- Agenjo, R., "Dos nuevas *Pseudocopicucullia* Dumont, de Ifni (Lep. Agrot.)" [in Spanish]. *Eos*, vol. 28: pp. 367-375, 1 pl., 1 fig. 1952. Describes as new *P. bensii* (Tiliuin, 185 m., Ifni), *P. capazi* (Sidi Ifni). [P. B.]
- Agenjo, R., "Un *Crambus* F., inédito y otro nuevo para España, descubiertos en los Picos de Europa. *C. pallidellus* Dup., 1836 (= *C. cuencalis* Hmps., 1900), *nov. syn.*" [in Spanish]. *Eos*, vol. 28: pp. 315-322, 1 pl. 1952. Describes as new *C. hospitali* (2,000 m., Picos de Europa). Sinks *cuencalis* to *pallidellus*. *C. chrysosunuchellus* new to Spain. [P. B.]

- Agenjo, R., "Geometridæ españoles de la colección D. Hospital, de Barcelona" [in Spanish]. *Eos*, vol. 29: pp. 289-328, 2 pls., 2 figs. 1953. Records of 35 spp., with some descriptive notes & figures of genitalia. 4 spp. new to Spain. [P. B.]
- Agenjo, R., "Subespecies nuevas de lepidópteros santanderinos" [in Spanish]. *Graellsia*, vol. 11: pp. 1-4. 1953. Describes as new *Anthrocera* (*Silvicola*) *scabiosæ picos* (Fuente Dé, 1001 m., Picos de Europa, Camaleño, Santander); *A.* (*Lictoriaq*) *achillæ* [sic!] *pardoi* (Pesués, 14 m., Santander); *Cænonympha* *dorus cantabrica* (Mt. Dobra, 605 m., Torrelavega, Santander). [P. B.]
- Agenjo, R., "Un microlepidóptero murciano, género y especie nuevos de la familia Scythrididæ" [in Spanish]. *Graellsia*, vol. 11: pp. 41-47, 5 figs. 1953. Describes as new *HERINGITA* (monobasic), *H. heringi* (La Alberca, 60 m., Murcia, Spain). [P. B.]
- Agenjo, R., "Especie y subespecie españolas inéditas del género *Oreopsyche* Spr. (Lep. Psych.)" [in Spanish]. *Eos*, vol. 30: pp. 379-390, 3 pls., 4 figs. 1954. Describes as new *O. ardanazi* (Posada de Valdeón), *O. angustella flamula* (San Rafael, 1,300 m., Segovia); notes on other races of *O. angustella*. [P. B.]
- Agenjo, R., "Estudio de los tipos de las *Depressaria* (s. l.) de Chiclana, descritas por Staudinger en 1859, y de los de *Agonopteryx subpallorella* (Stgr.), con algunos datos complementarios" [in Spanish]. *Eos*, vol. 30: pp. 59-75, 2 pls. 1954. Sinks *D. sublutella* to *A. subpropinquella*; transfers *D. straminella* & *D. cachritis* to *Agonopteryx*; describes & figures type genitalia of these spp., *D. velox*, *D. campestellæ*, & *A. subpallorella*. Notes on *A. squamosa* & *Martyrhilda lutosella*. [P. B.]
- Agenjo, R., "*Ortholitha diniensis* Neub., en España y un importante error sobre *O. bipunctaria* (Schiff.) y *O. octoduresis* Favr." [in Spanish]. *Eos*, vol. 30: pp. 149-155, 2 figs. 1954. Figures genitalia of *O. diniensis* & *O. mæniata*, & gives Spanish records. Corrects error of identification of other spp. based on reversal of genitalic figures in Zerny (1927). [P. B.]

C. MORPHOLOGY

- Astaurov, B. L., "The origin of triploid parthenogenesis as indicated by data on artificial polyploid parthenogenesis of the Silkworm, *Bombyx mori* L." *Proc. XV internat. Congr. Zool.*, pp.174-176. 1959.
- Baranowski, Richard Matthew, "A comparative morphological study of the axillary region of some pterygote insects." *Diss. Abs.*, vol.20: pp.1486-1487. 1959. Abstract.
- Barth, Rudolf, "Das Duftorgan des Maennchens von *Margaronia hyalinata* (L., 1767) (Lepidoptera, Pyraustidæ)" [in German; Portuguese summary]. *Rev. brasil. Biol.*, vol.14: pp.322-332, 14 figs. 1954. Describes scent glands & scent scales forming "brush" on end of abdomen. [P.B.]
- Barth, Rudolf, "Contribuição ao conhecimento das células glandulares dos insetos" [in Portuguese; German summary]. *An. Acad. brasil. Cienc.*, vol.29: pp.465-472, 1 pl., 5 figs. 1957. Comparative study of histology of secretory cells in various insects, especially Lepidoptera. A new type of secretory cell, called "cryptocrine", is described; its secretions are in the form of droplets smaller than the limit of resolution of the microscope. Scent glands of Lepidoptera are of this type. [P.B.]
- Barth, Rudolf, "Maennliche Duftorgane brasilianischer Lepidopteren. 18. Mitt.: *Phuphena fusipennis* Wlkr. (Noctuidæ, Hadeninæ)" [in German; Portuguese summary]. *An. Acad. brasil. Cienc.*, vol.29: pp.291-300, 9 figs. 1957. Describes ♂ scent organ on first abdominal segment. [P.B.]
- Barth, Rudolf, "O órgão odorífero masculino de uma espécie do gênero *Episimus* (Lepidoptera, Olethreutidæ)" [in Portuguese; German summary]. *Mem. Inst. Oswaldo Cruz*, vol.55: pp.113-126, 14 figs. 1957. Describes structure & function of scent glands in tegula & on hind wing. [P.B.]

D. VARIATION

- Ae, Shigeru Albert, "Genetic studies of several characters in *Colias eurytheme* (Lepidoptera, Pieridæ)." *Genetics*, vol.43: pp.564-576, 8 figs. 1958.
- Ae, Shigeru Albert, "A study of hybrids in *Colias* (Lepidoptera, Pieridæ)." *Evolution*, vol.13: pp.64-88, 2 figs. 1959. Numerous interspecific crosses were attempted, of which some involving *C. philodice*, *C. eurytheme*, *C. interior*, & *C. alexandra* showed some fertility. The characters of F_1 and F_2 hybrids and the inheritance of species-specific and other characters are discussed. Suggests that all North American *Colias* may be able to exchange genes directly or indirectly, although natural hybridization is common only between *C. philodice* & *C. eurytheme*. [P.B.]
- Ae, Shigeru Albert, "A study of hybrids between *Papilio xuthus* and the *P. polyxenes-machaon* group." *Journ. Lepid. Soc.*, vol.14: pp.5-16, 2 pls. 1960.
- Agénjo, Casilda, "La variabilidad de la *Graellsia isabellæ* (Graells) (Lep. Syssph.)" [in Spanish]. *Graellsia*, vol.11: pp.7-10. 1953. Describes variation in reared specimens; names 4 "forms". [P.B.]
- de Almeida, F. Ferrand, "Über die Konzentration von Kynurenin und Hydroxykynurenin während der Entwicklung bei den Genotypen *ra+* und *ra* von *Plodia interpunctella*" [in German]. *Naturwissenschaften*, vol.47: pp.27-28, 3 figs. 1961. Concentrations of these substances differ in wild type and red-eyed mutant at different times during development, but concentrations are not below normal in pupæ of mutant form. Mutant allele must interfere with conversion of substances to ommochrome. [P.B.]
- Astaurov, B. L., & V. P. Ostrikova-Varshover, "Complete heterospermic androgenesis in Silkworms as a means for experimental analysis of the nucleus-cytoplasm problem." *Journ. Embryol. exper. Morph.*, vol.5: pp.449-462, 2 pls., 3 figs. 1957. In *Bombyx*, androgenetic hybrids (produced from eggs with ♀ cytoplasm but only sperm nuclei) resemble the parental stock or species, as do the offspring of backcrosses between these hybrids and the parental type; this applies to hybrids from zygotes with *B. mandarina* cytoplasm and *B. mori* nuclei, as well as to interracial hybrids of *B. mori*. No genetic or ontogenetic effect of the cytoplasm was found. [P.B.]
- Balazuc, J., & J.-G. Pointel, "Observations tératologiques chez les lépidoptères" [in French]. *Bull. Soc. ent. France*, vol.61: pp.67-74, 10 figs. 1956. Describes & figures wing abnormalities of *Asopia obsoletalis*, *Fidonia plumistaria*, *Mimastilia*, *Saturnia pyri*, & *Lycæna phlæas*, and abnormal ♂ reproductive organs of *Earias biplaga*; mentions larva of last sp. with half of epicranium undeveloped. [P.B.]
- Balazuc, J., & J. Baurgogne, "Monstruosité chez un psychid" [in French]. *Bull. Soc. ent. France*, vol.64: pp.15-16. 1959. *Amicta cabrerai* ♀ with appendages like thoracic legs on third abdominal segment. [P.B.]
- Baynes, E. S. A., "A remarkable aberration of *Arctia caja* L." *Ent. Rec. & Journ. Var.*, vol.65: pp.66-67. 1953. Named.
- Berger, Lucien, "Remarques sur le dimorphisme saisonnier des lépidoptères du Congo Belge" [in French]. *Ann. Soc. Roy. zool. Belg.*, vol.82: pp.19-22. 1951. Note on seasonal variation, especially in Pieridæ & Papilionidæ, in the Congo; the former are particularly likely to have seasonal forms, perhaps because they live in open country & are more exposed to seasonal effects. [P.B.]
- Berio, E., "Variabilità di *Hippotion rebeli* Rots.-Jord. (Lepidoptera-Sphingidæ)" [in Italian]. *Ann. Mus. civ. Stor. nat.*, Genoa, vol.63: pp.168-172, 1 fig. 1948. Discusses variation & names 7 aberrations. [P.B.]
- Bernardi, G., "Note sur la variation géographique de *Pinacopteryx eriphia* God., principalement au Nord de l'Equateur (Lep. Pieridæ)" [in French]. *Bull. Inst. franç. Afrique noire* (A), vol.19: pp. 1178-1196, 1 map, 1 pl. 1957. Study of the geographical variation of this African pierid, chiefly north of the equator. [P.V.]

G. PHYSIOLOGY

- Ae, Shigeru Albert, "Effects of photoperiod on *Colias eurytheme*." *Lepid. News*, vol.11: pp.207-214, 1 fig. 1958.
- Anders, F., & E. Bayer, "Versuche mit dem Sexualduftstoff aus den sacculi laterales vom Seidenspinner (*Bombyx mori* L.)" [in German]. *Biol. Zentralbl.*, vol.78: pp.584-589, 1 fig. 1959. ♀ sex attractant separated by gas chromatography into 2 (possibly 3) active components. [P.B.]
- Beament, J. W. L., "The waterproofing mechanism of arthropods. I. The effect of temperature on cuticle permeability in terrestrial insects and ticks." *Journ. exper. Biol.*, vol.36: pp.391-422, 17 figs. 1959. In *Pieris* pupæ & other insects, the cuticular waxes lose their impermeability abruptly & irreversibly at a specific temperature. A special molecular arrangement of the wax layer is suggested. [P.B.]
- Beard, R. L., "Observations on the neuromuscular physiology of the larval foregut in *Galleria mellonella*." *Anat. Rec.*, vol. 132: p.412. 1958. Abstract.
- Beard, Raimon L., "Electrographic recording of foregut activity in larvae of *Galleria mellonella*." *Ann. ent. Soc. Amer.*, vol. 53: pp.346-351, 1 pl., 2 figs. 1960. Nervous impulses initiating peristaltic movements can be recorded in larvæ whose body musculature has been inactivated by *Microbracon* or *Theridion* venom or by nicotine, through electrodes inserted into mouth and posterior body cavity. Location of activity center in foregut, types of peristaltic action, and the effects of several chemicals (injected through the hollow posterior electrode) are described. [P.B.]
- Beck, Stanley D., "Insects and the length of the day." *Sci. Amer.*, vol.202, no.2: pp.108-118, 11 figs. 1960. Survey of effects of photoperiod in controlling life cycles. [P.B.]
- Beck, Stanley D., & Edward E. Smissman, "The European Corn Borer, *Pyrausta nubilalis*, and its principal host plant. IX. Biological activity of chemical analogs of Corn Resistance Factor A (6-methoxybenzoxazolinone)." *Ann. ent. Soc. Amer.*, vol.54: pp.53-61, 1 fig. 1961. Analog tests show that growth inhibition of larvæ is associated with presence of oxazole or thiazole ring. [P.B.]

H. MIGRATION

- Abbott, Charles H., "The 1958 migration of the Painted Lady Butterfly, *Vanessa cardui* (Linnæus), in California." *Pan-Pacific Ent.*, vol.35: pp.83-94. 1959. Migration involved four successive generations. Large larval populations were observed on various foodplants (listed), including some crops. Parasitization was heavy and appeared important in halting the outbreak. [P.B.]
- Berard, R., & Cl. Dufay, "Sur une importante migration de lépidoptères en mai 1958" [in French]. *Bull. mens. Soc. linn. Lyon*, vol.28: pp.142-149, 1 table. 1959. Observations about an important migration of Lepidoptera in France in May 1958. The following species were observed: *Vanessa cardui*, *Lampides batiscus*, *Celerio lineata livornica*, *Chloridea peltigera*, *C. nubigera*, *Laphygma exigua*, *Plusia ni*, *P. gamma*, *Utetheisa pulchella*, *Mythimna loreyi*, *M. vitellina*, & *Nomophila noctuella*; all species well known as migrants. [P.V.]
- Birchler, Alfons, "Falter auf Reisen. Eine Frühjahrs-Überraschung" [in German]. *Ent. Nachrichtembl.*, Vienna, vol.5, no.7: pp.1-3. 1958. Records of *Plusia ni*, *Celerio lineata*, & *Heliothis peltigera* at light in May (Switzerland). [P.B.]
- Bradley, J. D., "An influx of the Humming-bird Hawk-moth in 1959." *Ent. Gazette*, vol.11: pp.4-5. 1960. British records of *Macroglossus stellatarum*. [P.B.]
- Brower, Lincoln P., "Studies on the migration of the Monarch Butterfly I. Breeding populations of *Danaus plexippus* and *D. gilippus berenice* in south central Florida." *Ecology*, vol.42: pp.76-83, 1 fig. 1961. *D. plexippus* breeds in Florida, but breeding populations apparently contribute to northward movement of species in summer. Competition with the sedentary *D. g. berenice* is suggested as an explanation of the origin of migration. [P.B.]

I. TECHNIQUE

- Adkisson, P. L., Erma S. Vanderzant, D. L. Bull., & W. E. Allison, "A wheat germ medium for rearing the Pink Bollworm." *Journ. econ. Ent.*, vol.53: pp.759-762. 1960. *Pectinophora gossypiella*; formulæ for 3 artificial media discussed. [W.C.]
- Adkisson, Perry L., D. L. Bull., & W. E. Allison, "A comparison of certain artificial diets for laboratory cultures of the Pink Bollworm." *Journ. econ. Ent.*, vol.53: pp.791-793. 1960. *Pectinophora gossypiella*; casein and cottonseed meal compared as bases for synthetic diets. [W.C.]
- Aizawa, A., & C. Vago, "Essais de cultures de tissus de lépidoptères sur matières plastiques" [in French; German summary]. *Entomophaga*, vol.4: pp.249-252, 1 fig. 1959. Polyvinyl plastic slips were used successfully for hanging-drop cultures of *Bombyx mori* ovarian tissue. [P.B.]
- Appanna, M., "A cage useful for making observations on the adults of *Corcyra cephalonica* Stt." *Indian Journ. Ent.*, vol.14: p.44. 1952. Cardboard cylinder with ends closed by wire mesh. [P.B.]
- Aschim, A. O., "Collecting moths and butterflies as a hobby." *Blue Jay*, vol.15: pp.84-86. 1957. Elementary technique notes. [P.B.]
- Bancroft, T. A., & T. A. Brindley, "Methods for estimation of size of European Corn Borer populations." *Proc. 10th internat. Congr. Ent.*, vol.2: pp.1003-1014, 6 figs. 1958. On theory of sampling design for *Pyrausta nubilalis*. [P.B.]
- Baraud, J., "Remarques sur l'emploi de l'ammoniaque dans le ramollissage des lépidoptères" [in French]. *Alexanor*, vol.1: pp.158-160. 1960. Hypothesis on the effect of ammonium hydroxide in the softening of Lepidoptera. [P.V.]

J. MISCELLANEOUS

- Agenjo, R., "D. Manuel Pujol y Fiol, 1875-1953" [in Spanish]. *Graellsia*, vol.12: pp.1-19, 1 fig. 1954. Obituary of Spanish lepidopterist. [P.B.]
- Agenjo, R., "R. P. Ambrosio Fernandez, O. S. A." [in Spanish]. *Graellsia*, vol.12: pp.21-28, 3 figs. 1954. Obituary of Spanish lepidopterist, with list of publications & new entities described by him. [P.B.]
- Andersen, W. A., "Capture of *Nymphalis j-album* in Maryland at night." *Journ. Lepid. Soc.*, vol.14: p.62. 1960.
- Anonymous, "Recent trends of lepidopterology in the world" & "Present and future of butterfly study in Japan" [in Japanese]. *Shin Konchu*, vol.5, no.4, supplement: pp.24-28, 1 fig. 1952.
- Beebe, William, "The high world of the rain forest." *Nat. geogr. Mag.*, vol.113: pp.838-855, 8 pls., 2 figs. 1958. Colored paintings illustrate spp. of *Metamorphia*, *Ithomia*, & *Heliconius*, among other things. [P.B.]
- Bernardi, G., "Le *Papilio alexanor* Esper, un des joyaux de la faune lépidoptérologique française" [in French]. *Alexanor*, vol.1: pp.4-6. 1959. Note of introduction on *P. alexanor* for this new French journal of lepidopterology. [P.V.]
- Betz, J.-T., "Avertissement aux lépidoptéristes" [in French]. *Bull. mens. Soc. linn. Lyon*, vol.27: pp.197-201. 1958. Note about the destruction of good localities for collecting and preservation of nature. [P.V.]
- Bielewicz, M., "Witold Niesiolowski—nestor polskiej entomologii" [in Polish]. *Bull. ent. Pologne*, vol.25: pp.5-8. 1956. Obituary note with the list of published lepidopterological papers. [J.M.]
- de Biezanko, Ceslau Maria, & Oswaldo Baucke, "Nomes populares dos lepidópteros no Rio Grando do Sul" [in Portuguese]. *Agros*, vol.1: pp.164-177. 1948. Lists popular names of many Lepidoptera of southern Brazil. [P.B.]
- Biezanko, J. L. M., *Referências sobre as espécies, formas e aberrações de lepidópteros paleárticos e neotropicais descritos por C. M. Biezanko. Gêneros e espécies dedicados ao C. M. Biezanko. En homenagen de 40 anos de atividade profissional* [in Portuguese]. 8 pp., 3 pls. Pelotas, 1960.