

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 (Osborn Zoological Lab., Yale University, New Haven 11, Conn., 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; [J.M.] — J. MOUCHA; [E.M.] — E. G. MUNROE; [N.O.] — N. S. OBRAZTSOV; [C.R.] — C. L. REMINGTON; [J.T.] — J. W. TILDEN; [P.V.] — P. E. L. VIETTE.

B. SYSTEMATICS AND NOMENCLATURE

- Bauer, David L., "A new race of *Papilio indra* from the Grand Canyon region." *Lepid. News*, vol.9: pp.49-54, 1 pl. 10 Aug. 1955. Describes as new *P. i. kaibabensis* (Bright Angel Point, Ariz.)
- Bell, Ernest Layton, & Cyril Franklin dos Passos, "The lectotype of *Megathymus aryxna* Dyar (Lepidoptera, Megathymidae)." *Amer. Mus. Novit.*, no.1700: 5 pp. 20 Dec. 1954. Identified as specimen figured in *Biologia Centrali-Americanana*, vol.3, pl.69, fig.4. [P.B.]
- Berger, L. A., "Note sur *Papilio jacksoni* Sharpe" [in French]. *Lambillionea*, vol.54: pp.92-93. 25 Dec. 1954. Describes as new *P. j. hecqi* (Kibali-Inturi, Belgian Congo); note on this species of eastern and central Africa. [P.V.]
- Bernardi, G., "Revision de *Belenois gidica* God. d'Ethiopie (Lep. Pieridae)" [in French]. *Rev. frang. Lépid.*, vol.15: pp.13-20, 1 pl. July 1955. Study of the subspecies *B. g. hypoxantha* and *B. g. abyssinica*. Designates a lectotype for the latter; this subspecies has distinct dry- and wet-season forms. [P.V.]
- van den Bosch, R., & Ray F. Smith, "A taxonomic and distributional study of the species of *Prodenia* occurring in California." *Pan-Pac. Ent.*, vol.31: pp.21-28. 1955. *P. præfica* and *P. ornithogalli* both occur in California, the latter only south of the Tehachapi Mts. *P. præfica* has a diapause in the pupal state. *P. ornithogalli* has no diapause and is unable to endure cold winters. [J.T.]
- Boursin, Ch., "Description de deux genres nouveaux (Lep. Phal.) (Contributions à l'étude des 'Agrotidæ' — Trifinæ, LXII)" [in French]. *Bull. Mens. Soc. Linn. Lyon*, vol.24: pp.219-220. Nov. 1955. Describes as new two genera of Phalaenidae (=Agrotidae, =Noctuidae): *AMMOPOLIA* (type *witzenmanni* Stdf.) and *BRYONYCTA* (type *pineti* Stgr.). [P.V.]
- Box, Harold E., & Hahn W. Capps, "New crambine genera allied to *Diatraea* Guilding (Lepidoptera: Pyralidae). I (supplementary note) and II." *Proc. Roy. Ent. Soc. London (B)*, vol.24: pp.174-178, 1 pl., 1 fig. 31 Oct. 1955. Revises description of *Eodiatraea* and *E. centralis*. Describes as new *CRAMBIDIATRÆA* (type *D. cayennella*), including also *D. strigipenella*, *D. castrensis*, *D. enteriana*. Figures type specimens of 4 spp. of *Diatraea* (s.l.). [P.B.]
- Brown, F. Martin, "Studies of Nearctic *Cœnonympha tullia* (Rhopalocera, Satyridæ). *Cœnonympha tullia inornata* Edwards." *Bull. Amer. Mus. Nat. Hist.*, vol.105: pp.359-410, 2 pls., 19 figs. 14 March 1955. Divides Nearctic *C. tullia* into 5 groups centered around the names *inornata*, *ochracea*, *california*, *ampelos*, *mixturrata*. Study of variation in the races *C. i. mcisaaci*, *C. i. nipisiquit*, *C. i. inornata* (including *quebecensis*) and *C. i. benjamini* (for the purpose of this work *tullia* is treated as a superspecies and *inornata* as a species). Also gives available information on habits and ecology; repeats original descriptions and locates types; figures these 4 races and representatives of other American groups. [P.B.]
- Cary, Margaret M., "Name changes for the Sphingidae of Jamaica." *Lepid. News*, vol.9: pp.135-136. 22 Dec. 1955.

- Clarke, J. F. Gates, "The correct name for a pest of cacao." *Proc. Ent. Soc. Washington*, vol.56: pp.266-267. Oct. 1954. *Zetesima baliandra* correct name for *A. theobromae* (Stenomidae). [W.C.]
- Clarke, J. F. Gates, "The correct name for a pest of legumes." *Proc. Ent. Soc. Washington*, vol.56: pp.309-310. 1954. *Epinotia aporema* the correct name for *E. opposita* (Ole-threutidae). [W.C.]
- Ford, E. B., "Polymorphism and taxonomy." *Heredity*, vol.9: pp.255-264. Aug. 1955. Reprinted from *Rpt. 7th N. Z. Sci. Congr.*, 1951.
- Freeman, H. A., "Four new species of *Megathymus* (Lepidoptera, Rhopalocera, Megathyridae)." *Amer. Mus. Novit.*, no.1711: 20 pp., 34 figs. 11 March 1955. Describes as new *M. harrisii* (Stone Mt., Ga.; on *Yucca filamentosa*); *M. belli* (La Bequilla, Durango, Mex.); *M. macpinei* (5 mi. N. of Marathon, Tex.; on undescribed *Agave*); *M. maculosus* (Kingsville, Tex., on *Manfreda maculosa*). Other foodplant records are: *M. cofaqui* (*Yucca aloifolia*); *M. chisosensis* (*Agave scabra*; previous record incorrect). [P.B.]
- Grotenfelt, P., & W. Hackman, "Hydræcia nordstroemi Horke found in Finland." *Notul. Ent.*, vol.33: pp. 82-84, 4 figs. 1953. The ♂ and ♀ genitalia of *H. nordstroemi* and *H. micacea* are figured. [W.H.]
- Hessel, Sidney A., "A natural Cynthia-Cecropia mating." *Lepid. News*, vol.9: p.142. 22 Dec. 1955.
- Hovanitz, W., "Colias *nastes* and *Colias hecla* from Meade River, Alas'ka." *Wasmann Journ. Biol.*, vol.13: pp.1-8. 1955. Describes as new *C. nastes thula* (near Meade R., Alaska). [J.T.]
- Issekutz, László, "Monima schmidtii Diószi (Lepid., Noctuidæ)" [in English, Hungarian summary]. *Ann. Hist.-Nat. Mus. Nat. Hung.*, n.s., vol.6: pp.321-325, 6 figs. 1955. Redescribes species and describes genitalia. [P.B.]
- Kaisila, J., & O. Peltonen, "Philotes *vicrama* Moore (Lep., Lycaenidae) in Finnland" [in German]. *Ann. Ent. Fennici*, vol.21: pp.9-12, 3 figs. 1955. All the Finnish records of *P. baton* are erroneous; the specimens all belong to *P. vicrama schiffermuelleri*. Parts of the ♂ genitalia of both species are figured. All known Finnish finds of *P. vicrama* are listed. [W.H.]
- Keen, F. P., "Correct identity of the Douglas-fir cone moth." *Journ. Econ. Ent.*, vol.46: p.1107. "Dec. 1953" [10 March 1954]. This serious pest of western Douglas Fir, which has been called *Cydia pseudotsugana* in the economic literature for many years, is not this species, which is shown to defoliate larvæ and firs but is not a cone borer. The cone borer is actually *Barbara colfaxiana*. [W.C.]
- Krogerus, H., "Investigations on the Lepidoptera of Newfoundland. I. Macrolepidoptera." *Acta Zool. Fennica*, vol.82: pp.1-80, 34 figs., 1 map. 1954. Describes as new: *Prothrobodes lindrothi*; *Hydrelia terræ-novæ*. Contains a check list of all Macrolepidoptera known from Newfoundland. Compares closely allied species of Newfoundland and Europe. The ♂ genitalia of 34 spp. and sspp. are figured. Gives a detailed survey of the localities for each species based on extensive material collected by the author and other members of the Finnish-Swedish Expedition to Newfoundland, 1949. [W.H.]
- Mickel, Clarence E., "Some milestones in the history of insect classification." *Canad. Ent.* vol.87: pp.57-66. 15 March 1955. Discusses Aristotle, Gesner, Aldrovandus, Swammerdam, Ray, Linnaeus, Fabricius, Latreille, and Darwin. [E.M.]
- Munroe, Eugene, "The genus *Epipagis* Hübner, nec Hampson, in North America (Lepidoptera: Pyralidae)." *Canad. Ent.*, vol.87: pp.-249-252, 6 figs. 5 Aug. 1955. Describes as new *E. forsythæ* (Florida). Records *E. disparilis* from the U. S. (Ariz.). Sinks *Stenophyes* to *Epipagis*, and synonymizes *E. fenestralis* with *buronialis*, but retains the latter name under the principle of conservation. Photographs of moths, descriptions of genitalia. [E.M.]
- Povolný, Dalibor, & Jiří Šmelhaus, "Nový příspěvek k poznání rodu *Procris* Fabr. [Contribution to the knowledge of the genus *Procris* Fabr.]" [in English, Czech introduction] *Acta Soc. Zool. Bohemoslovaciae*, vol.15: pp.147-200, 29 figs., 3 maps, 169 figs. of genitalia. 1951. Very important study of morphology, phylogeny, and systematics of *Procris*. Describes as new subgenus *GREGORITA*, for *P. soror* (= *hispanica*). [J.M.]
- do Rego Barros, Alfredo Rei, "Fauna do Distrito Federal. XIV. Sobre uma espécie do gênero *Cresera* Schaus, 1894 (Lepidoptera-Heterocera)" [in Portuguese]. *Bol. Mus. Nac. Rio de Janeiro*, ser.2, no.124: 17pp., 2 pls., 6 figs. 29 Oct. 1954. Detailed redescription of *C. perflua* (Arctiidæ); figures adults, genitalia and other structures. [P.B.]
- Roubal, Jan, "K článku, 'Nomenclator sive enumeratio critica Lepidopterorum Slovacæ (Satyridæ-Sphingidæ). Auctore J. Paclt' v tomto časopise XII, 1949, pp.140-155" [in

- Czech]. *Folia Ent.*, vol.13: p.48. 30 April 1950. Gives some Slovak names of Lycenidae. [J. M.]
- Todd, E. L., "The distribution and nomenclature of the Corn Earworm." *Journ. Econ. Ent.*, vol.48: pp.600-603, 2 figs. Oct. 1955. The Corn Earworm is not *Heliothis armigera*, which does not occur in North America, and cannot be called *obsoleta*, which is preoccupied. Correct name is *H. zea*. Genitalia of *zea* and of *gelotopoeon*, a closely related species from South America, are figured. [W.C.]
- Todd, E. L., "The recognition of species of *Dichordophora* Prout." *Proc. Ent. Soc. Washington*, vol.57; pp.118-120, 6 figs. June 1955. Discusses the separation of *D. phoenix* and *D. aplagaria*. Figures ♂ and ♀ genitalia of these and of *iridaria*. Also gives characters to separate *Dichordophora* from *Dichorda* (Geometridae). [W.C.]
- Todd, E. L., "The separation of the adults of *Acontia dacia* Druce from related species." *Journ. Econ. Ent.*, vol.48: pp.599-600, 8 figs. Oct. 1955. Distinguishing characters are given to separate *dacia* from *terminimacula*, and both of these from other related *Acontia*. Photos of maculation and drawings of ♂ and ♀ genitalia. [W.C.]
- de Toulgoet, H., "Description d'Arctiidæ nouveaux de Madagascar et des Comores (3^e note)" [in French]. *Rev. franç. Ent.*, vol. 22: pp.186-202, 13 figs. 1 pl. Oct. 1955. Describes as new: *Eilema phantasma*, *E. croceibasis*, *E. quadrangula*, *E. simulatrix*, *E. pauliani* (S. Madagascar); *E. decaryi*, *Philenora tortricoides* (Madagascar); *P. pseudotortrix*, *P. rotunda* (central Madagascar); *P. proxima*, *P. andriai* (S.W. Madagascar); *P. arida*, *Roeselia decaryi* (far south Madagascar); *Eilema comorensis* (Moheli, Comoro Is.); *BRYONOLA* (type *parmelia* Tlg.). [P.V.]
- Viette, P. E. L., "Notodontidae de Madagascar nouveaux ou peu connus" [in French]. *Bull. Mens. Soc. Linn. Lyon*, vol.24: pp.221-228. Nov. 1955. New or little known spp. from the E. Madagascar rain forest. Describes as new: *Desmeocraea antongilensis*, *D. miata*, *Chadisra malgassa*, *Tricholoba magnifica*, *Onophalera simplex*, *Turnacoides ioptila*, *Dinotondota nigripunctella*, *Eurystaura euryala*, *Eutrotonotus psilodoxa*, *Anaphe mirabilis*. [P.V.]

C. MORPHOLOGY AND CYTOLOGY

- Eastham, L. E. S., & Y. E. E. Eassa, "The feeding mechanism of the butterfly *Pieris brassicae* L." *Phil. Trans. Roy. Soc. London B*, vol. 659: pp.1-43, 44 figs. 1 March 1955. A very detailed description of the morphology and method of functioning of the proboscis and the other head structures involved in feeding. [P.B.]
- Finlayson, L. H., & Otto Lowenstein, "A proprioceptor in the body musculature of Lepidoptera." *Nature*, vol.176: p.1031. 26 March 1955. Modified muscle cells in dorsal longitudinal musculature of saturniid larvæ. [P.B.]

D. VARIATION AND GENETICS

- Averkiev, I. S., "Deriving a new variety of Tussah Silkworm (*Antherea pernyi*) by changing feeding conditions" [in Russian]. *Dokl. Vses. Akad. Nauk im. Lenina*, vol.17, no.8: pp.37-39. 1952. [Not seen.]
- Biezanko, C. M., "Sobre algumas novas aberrações de *Colias lesbia pyrrhothea* Hübner, 1823" [in Portuguese]. *Agros*, vol.2, no.2: 4 pp., 1 pl. 1949. Describes, figures, and names 8 aberrations of *C. l. pyrrhothea*. [C.R.]
- Brůcková, Bozena, "Sur la variabilité de *Amphidasis betularia* L. en Bohême" [in Czech, French summary]. *Acta Ent. Mus. Nat. Pragæ*, vol.26, no.356: 4 pp. 8 Oct. 1951. Lists all forms of this sp. recorded from Bohemia and describes a form from this area, without location or figures. [J.M.]
- Brůcková, Bozena, "Sur les espèces du genre *Paeclopsis* Harrison de Bohême" [in Czech, French summary]. *Acta Ent. Mus. Nat. Pragæ*, vol.26, no.365: 5 pp. 9 Oct. 1951. The distribution of *P. isabellæ* and *P. pomonaria* in central Europe is discussed and two forms of *P. isabellæ* are described and named, from Bohemia and Poland. [J.M.]
- Brůcková, Bozena, "Study of the Bohemian species of the genus *Erannis* Hübner (Geom.)." *Acta Ent. Mus. Nat. Pragæ*, vol.27: pp.213-221. 1952. Records 5 spp. of this genus from Bohemia and gives their distribution and variability. [J.M.]
- Clarke, C. A., & P. M. Sheppard, "The breeding in captivity of the hybrid *Papilio rutulus* female × *Papilio glaucus* male." *Lepid. News*, vol.9: pp.46-48, 1 fig. 10 Aug. 1955.
- Dufay, C., "Une forme nouvelle de *Lithosia quadra* L." [in French]. *Rev. franç. Lépid.*, vol.14: pp.259-260, 3 figs. March 1955. A new form of *L. quadra* in the Alps. [P.V.]
- Hrubý, Karel, "Colour variation in *Dendrolimus pini* L. (Lasiocamp.)" [in Czech, English summary]. *Acta Soc. Ent. Čechosloveniae*, vol.48: pp.127-131. 30 Nov. 1951. The color of caterpillars is independent of the color of the imago. [J.M.]
- Kettlewell, H. B. D., "Recognition of appropriate backgrounds by the pale and black phases of Lepidoptera." *Nature*, vol.175: pp.943-944. 28 May 1955. Reports experi-

- ment demonstrating tendency of color forms of *Biston betularia* to rest on backgrounds on which they are inconspicuous. This supports the theory that industrial melanism is an adaptive phenomenon related to the general darkening of available backgrounds by soot. [P.B.]
- Komárek, Oldřich, "Contribution à la connaissance de *Zygæna carniolica* Scop. en Bohême" [in Czech; Russian and French summaries]. *Acta Soc. Ent. Čechosloveniae*, vol.49: pp.146-153, 1 map. 15 Dec. 1952.
- Komárek, Oldřich, "La variabilité de l'espèce *Zygæna carniolica* Scop. en Bohême (Lep. Zygaenidae)" [in Czech; Russian and French summaries]. *Acta Soc. Ent. Čechosloveniae*, vol.49: pp.200-212, 10 figs. 15 Dec. 1952. In both papers discusses the variability of *Z. carniolica* from N. E. Bohemia. [J.M.]
- Milyaev, A. P., "Methods of changing the nature of the Oak Silkworm" [in Russian]. *Priroda*, vol.39, no.2: pp.7-15. Feb. 1950. [Not seen.]
- Müller, H. J., "Die Saisonformbildung von *Araschnia levana*, ein photoperiodisch gesteuerter Diapause-Effekt" [in German]. *Naturwissenschaften*, vol.42: pp.134-135, 1 fig. March 1955. Larvae raised at day length of 16-20 hours produced adults of summer form "prorsa"; larvae raised at day length of 8 hours produced, after prolonged diapause, adults of spring form "levana"; temperature was ruled out as a factor in producing these seasonal forms. [P.B.]
- Ostriáková-Varshaver, V. N., & B. L. Astaurov, "Hereditary variability in liability of the silkworm (*Bombyx mori*) to androgenesis under the influence of temperature" [in Russian]. *Dokl. Akad. Nauk SSSR*, vol.58: pp.2131-2134, 1 fig. 1947. [Not seen.]
- Povolný, Dal., "The causes of melanism in Lepidoptera" [in Czech; English summary]. *Folia Ent.*, vol.11: pp.141-143. 31 Oct. 1948.
- Slabý, Otto, "Le problème du dimorphisme sexuel de l'espèce *Xylomania conspicillaris* L. et l'apparition de sa forme typique dans la Bohême de l'ouest (Noctuidæ)" [in Czech; French summary]. *Acta Soc. Ent. Čechosloveniae*, vol.48: pp.187-190, 2 figs. 15 Dec. 1951. The f. "intermedia" Tutt probably only nominate form of ♀. [J.M.]
- Strunnikov, V. A., "Increasing the viability of the silkworm by crossing individuals of different weight" [in Russian]. *Dokl. Vses. Akad. Sel'sk. Nauk im. Lenina*, vol.18, no.6: pp.32-34. 1953. [Not seen.]
- Tanaka, Yoshimaro, "Is there any cytoplasmic effect on unstable genes in the Silkworm?" *Nat. Inst. Genetics (Japan)*, Ann. Rept., no.3: pp.17-19, 1 fig. 1953. Variability of larval spotting greater in F₁ or F₂ when mother was normal than in reciprocal; more data being gathered. [C.R.]
- Tanaka, Yoshimaro, "Spontaneous recurrent mutations of a modifier of the Multistar marker." *Nat. Inst. Genetics (Japan)*, Ann. Rept., no.3: pp.19-20. 1953. Larval color form appeared in long inbred line of *Bombyx mori* and then recurred in later generations bred from normal parents. May be tendency for recurrent mutations or assembled polygenes. [C.R.]
- Tsujita, Mitsuo, "Studies on the semi-allelic E-series in the Silkworm. (a) On the relation between E^H and E^{Kp}. (b) [with Bungo Sakaguchi] On the relation between E^{Ms} and E^{Mc}." *Nat. Inst. Genetics (Japan)*, Ann. Rept., no.3: pp.20-22, 1 fig., 22-24, 2 figs. 1953. Larval genes E^H (extra spots on abd. seg. 4) and E^{Kp} (extra abd. legs) shown not to be allelic, although very close together; these cross over in female (!) as well as male. E^{Ms} and E^{Mc} (extra-leg genes) are also found not to be allelic. [C.R.]
- Tsujita, Mitsuo, "Maternal inheritance of 'Lethal Yellow'." *Nat. Inst. Genetics (Japan)*, Ann. Rept., no.3: pp.24-27, 1 fig. 1953. In *Bombyx mori*, finds that mother controls color of egg and young larva, regardless of father's genotype. [C.R.]
- Tsujita, Mitsuo, & Bungo Sakaguchi, "Genetical and biochemical studies of Yellow Lethal larvae." *Nat. Inst. Genetics (Japan)*, Ann. Rept., no.3: pp.27-28. 1953. Find that Yellow Lethals (of *Bombyx mori*) have more xanthopterin-B and methionine and less isoxanthopterin than normals. [C.R.]
- Tsujita, Mitsuo, "Trisomic Silkworm produced by treatment with BHC powder." *Nat. Inst. Genetics (Japan)*, Ann. Rept., no.3: pp.28-32, 11 tables. 1953. Discusses unexpected recombinations in crosses between trisomics and normals. [C.R.]
- Yosida, Toshihide H., "Cytological study on the racial hybrids of *Philosamia cynthia* (Lepidoptera, Saturniidae)." *Nat. Inst. Genetics (Japan)*, Ann. Rept., no.3: pp.34-35. 1953. Chromosome number of *P. c. walkeri* (Manchuria and Korea) is n = 13, of *P. c. pryeri* (Kyushu) and *P. c. ricini* (Formosa?) is n = 14. All *walkeri* × *pryeri* and *walkeri* × *ricini* hybrids show 12 bivalents and one trivalent, except Manchurian *walkeri* × *pryeri* which shows 10 bivalent, 1 trivalent, 1 quadrivalent. "Racial" differentiation probably due to duplication of one chromosome pair; Manchurian and Korean races of *walkeri* differ in a reciprocal translocation, with *pryeri* having the Manchurian type and *ricini* having the Korean type. No *pryeri* × *ricini* crosses reported. [C.R.]

E. DISTRIBUTION AND PHENOLOGY

- Kudla, Mil., "Výskyt můry *Chariclea delphinii* L. u Olomouce" [in Czech]. *Acta Soc. Ent. Čechosloveniae*, vol.49: pp.88-89. 1 Oct. 1952. Gives information about *C. delphinii* captured near Olomouc (central Moravia). [J.M.]
- de Laever, E., "Notes sur le genre *Cosymbia* Hübner" [in French]. *Lambillonea*, vol.54: pp.35-39. 25 Aug. 1954. Notes on the geographical repartition, genitalia and biology of the Belgian and French species of *Cosymbia* (Geometridae). [P.V.]
- de Laever, E., "Tomares ballus Fabr. dans les Basses-Alpes" [in French]. *Rev. franç. Lépid.*, vol.14: p.165. Nov. 1954. Capture of *T. ballus* (Lycenidae) in the South Alps. [P.V.]
- de Lajonquière, Y., "Cerura verbasci F. et quelques autres captures en Ardèche" [in French]. *Rev. franç. Lépid.*, vol.14: pp.193-194. Nov. 1954. New localities for *C. verbasci* (Notodontidae) and list of interesting species collected in Ardèche area. [P.V.]
- Leleux, "Quelques noctuelles intéressantes du Jura" [in French]. *Rev. franç. Lépid.*, vol.14: pp.195-196. Nov. 1954. List of some interesting species of Noctuidae from the Jura Mts. [P.V.]
- Martin, P., "Lépidoptères nouveaux pour la région de Genève 1948-1954" [in French]. *Mitt. Schweiz. Ent. Ges.*, vol.28: pp.149-152. April 1955. List of new captures of Lepidoptera in the Geneva area in these years. [P.V.]
- Menu, J.-J., "Papilio podalirius dans le Nord" [in French]. *Rev. franç. Lépid.*, vol.14: p.166. Nov. 1954. Capture of *P. podalirius* in the North of France. [P.V.]
- Moucha, Josef, "Argynnis laodice Pall. en Tchécoslovaquie" [in Czech; French summary]. *Acta Soc. Ent. Čechosloveniae*, vol.48: pp.135-137. 30 Nov. 1951. Czechoslovakian records and description of the locality in Vihorlat Mts. (eastern Slovakia). [J.M.]
- Moucha, Josef, "Contribution à la connaissance de la distribution géographique du papillon *Leptidea morsei* Fent. ssp. *major* Lork." [in Czech; French summary]. *Acta Soc. Ent. Čechosloveniae*, vol.48: pp.181-186, 4 figs. 15 Dec. 1951. Lists all localities from central Europe. [J.M.]
- Moucha, Josef, "Fragmenta lepidopterologica" [in Czech, English summary]. *Acta Soc. Ent. Čechosloveniae*, vol.48: pp.238-240. 31 Dec. 1951. Records *Epizeuxis calvaria* from central Bohemia and the mass occurrence of *Lymantria dispar* and *Hyphantria cunea* in South Slovakia. [J.M.]
- Moucha, Josef, "The distribution of *Pandoriana maja* Cr. in Central Europe (Lep. Nymphalidae)." *Acta Ent. Mus. Nat. Pragae*, vol.27: pp.69-88, 2 figs., 1 map. 1952. Gives distribution in Central and Southeastern Europe with bibliography. Both sexes of the nominate form from Turkey (Therapia, near Istanbul) are figured. [J.M.]
- Moucha, Josef, "Insecta Houškeana" [in English, Czech & Russian summaries]. *Acta Ent. Mus. Nat. Pragae*, vol.28: pp.185-207. 1953. Systematic and faunistic study of Lepidoptera collected by J. Houška in Palestine (1940-1946). Recorded are 62 spp. [J.M.]
- Moucha, Josef, "La distribution géographique de la *Leptidea morsei* Fent. en Europe (Lep. Pieridae)" [in French]. *Bull. Soc. Ent. Mulhouse* 1953: pp.1-4, 11 figs. Jan. 1953. Lists all known localities for *L. morsei major*, the European race; compares it to *L. sinapis*, figuring both. [P.B.]
- Nemček, Stanislav, "Príspevok k doterajším poznatkom motýľov Chočského pohoria (Slovensko)" [in Slovak; Russian summary]. *Acta Soc. Ent. Čechosloveniae*, vol.50: pp.53-55. 20 Jan. 1954. Lists 43 spp. of Rhopalocera & Hesperiidae from Chočské pohorie Mts. (N.W. Slovakia). [J.M.]
- Newman, L. Hugh, "Reported British butterflies." *Country Life*, vol.110: pp.658-659, 6 figs. 31 Aug. 1951. Account of some species dubiously recorded in Britain, and some occasional immigrants; good figures of adults. [P.B.]
- Newman, L. Hugh, "Butterflies yesterday and today — I. Species on the decline. II. Five species on the increase." *Country Life*, vol.115: pp.1708-1709, 2013-2014, 12 figs. 27 May, 7 June 1954. British species; good figures.
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G. PHYSIOLOGY AND BEHAVIOR

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