

RECENT LITERATURE ON LEPIDOPTERA

(Under the supervision of PETER F. BELLINGER)

F. BIOLOGY AND IMMATURE STAGES

- Allen, H. W., "Nosema disease of *Gnorimoschema operculella* (Zeller) and *Macrocentrus ancyliivorus* Rohwer." *Ann. Ent. Soc. Amer.*, vol.47: pp.407-424. Sept. 1954. Biology of this microsporidian disease in moth and parasite; control methods in culture work are described. [P.B.]
- Baeta-Neves, C. M., "A entomofauna das 'exóticas' em Portugal" [in Portuguese]. *Portug. Acta Biol. (B)*, vol.4: pp.191-196. 2 Oct. 1954. List, by foodplants, of insects on exotic plants in Portugal; records *Evetria tessellatana* on *Cupressus*, *Tbaumatopoea pityocampa* on *Pinus radiata* and *Pseudotsuga douglassi*, *Caccecia pronubana* on *Myoporum acuminatum*, *Dicranura vinula* on *Populus*, *Semasia minutana* on *Populus alba*, *Zeuzera pyrina* on *Quercus rubra*, *Sciapterion tabaniforme* on *Populus robusta*; *Mimas tiliae* on *Tilia* spp. [P.B.]
- Baird, R. B., "A species of *Cephalosporium* (Moniliaceae) causing a fungous disease in larvæ of the European corn borer, *Pyrausta nubilalis* (Hbn.) (Lepidoptera: Pyraustidae)." *Canad. Ent.*, vol.86: pp.237-240, 5 figs. 9 July 1954. Discusses etiology, symptomatology, and pathology of this disease. [E.M.]
- Belosel'skaia, Z. G., "The moth *Argyresthia ephippella* F. as a pest of cherries and plums" [in Russian]. *Ent. Obozrenie*, vol.32: pp.86-92, figs. 1952. [Not seen].
- Belyea, R. M., "Death and deterioration of balsam fir weakened by spruce budworm defoliation in Ontario." *Canad. Ent.*, vol.84: pp.325-335, 7 figs. 28 Nov. 1952. Discusses seasonal histories and habits of 7 spp. of Coleoptera and 3 spp. of Hymenoptera breeding in severely defoliated and dead trees. [E.M.]
- Bennett, William H., "The effect of needle structure upon the susceptibility of hosts to the pine needle miner (*Exoteleia pinifoliella* (Chamb.) (Lepidoptera: Gelechiidae)." *Canad. Ent.*, vol.86: pp.49-54, 5 figs. 10 March 1954. States that large or numerous resin canals tend to reduce favorability of a *Pinus* sp. as a host for this insect. [E.M.]
- Bennett, Wm. H., "The metamorphosis of the pine leaf miner (*Exoteleia pinifoliella* (Chamb.) (Lepid. Gelechiidae)." *Canad. Ent.*, vol.86: pp.310-311, 1 fig. 20 Aug. 1954. Describes pupation, pupal cell, and emergence of adult. [E.M.]
- Blais, J. R., "Effects of the destruction of the current year's foliage of balsam fir on the fecundity and habits of flight of the spruce budworm." *Canad. Ent.*, vol.85: pp.446-448. 31 Dec. 1953. Complete defoliation is associated with reduced egg production, and with massive flights into adjoining areas. [E.M.]
- Bourgogne, J., "Le venin de vipère utilisé comme nourriture par une tinéide (Lep.)" [in French]. *Bull. Soc. Ent. France*, vol.59: pp.74-75. 1954. The desiccated venom of *Vipera aspis* used as food by *Tineola bisselliella* in the Institut Pasteur, Paris. [P.V.]
- Brandt, H., "Massenaufreten von *Biston zonarius* Schiff. (Lep., Geometridae) an Luzerne" [in German]. *Nachrbl. Bayer. Ent.*, vol.3: p.64. 15 June 1954. Caterpillars were numerous on alfalfa. [N.O.]
- Brandt, H., "*Procris pruni* Schiff. (Lep., Anthroceridae) an Erdbeere" [in German]. *Nachrbl. Bayer. Ent.*, vol.3: p.64. 15 June 1954. Strawberry as a new foodplant. [N.O.]
- Brooks, A. R., "Identification of bombyliid parasites and hyperparasites of Phalænidæ of the Prairie Provinces of Canada, with descriptions of six other bombyliid pupæ (Diptera)." *Canad. Ent.*, vol.84: pp.357-373, 46 figs. 31 Dec. 1952. Describes, keys, and figures larvæ, pupæ, and/or adults of 11 spp. associated with Phalænidæ. [E.M.]
- Buresh, I., "Die Nonne *Ocneria monacha* als Schädling in der Wäldern Bulgariens" [in Bulgarian, German summary]. *Izv. Zool. Inst. Bulg. Akad. Nauk*, vol.2: pp.3-54. 1953. [Not seen].
- Campbell, I. M., "Morphological differences between the pupæ and the egg clusters of *Choristoneura fumiferana* (Clem.) and *C. pinus* Free. (Lepidoptera: Tortricidae)." *Canad. Ent.*, vol.85: pp.134-135, 2 figs. 15 April 1953.
- Chapman, John A., John I. Romer, & John Stark, "Ladybird beetles and army cutworm adults as food for grizzly bears in Montana." *Ecology*, vol.36: pp.156-158. Jan. 1955. *Chorizagrotis auxilaris*; moth may estivate in numbers in high mountains. [P.B.]
- Cumming, Margaret E. P., "Notes on the spruce needle miner, *Taniva albolineana* Kft. (Olethreutidae: Lepidoptera)." *Canad. Ent.*, vol.86: pp.457-460, 2 figs. 5 Nov. 1954. Briefly describes life history; enumerates various spp. of spruce known to be hosts; lists 2 ichneumonid and 5 braconid parasites. [E.M.]

- Dondale, C. D., "Biology of *Agathis laticinctus* (Cress.) (Hymenoptera: Braconidae), a parasite of the Eye-Spotted Bud Moth, in Nova Scotia." *Canad. Ent.*, vol.86: pp.40-44, 6 figs. 29 Jan. 1954. Describes larvæ, life-cycle, and habits, and lists several predators and hyperparasites. [E.M.]
- Doutt, Richard L., "The teratoid larva of polyembryonic Encyrtidae (Hymenoptera)." *Canad. Ent.*, vol.84: pp.247-250. 29 Aug. 1952. The asexual larvæ of *Copidosoma* spp., parasites of *Plusia* larvæ, are discussed. [E.M.]
- Graham, Violet E., "Notes on the life histories of some butterflies of B. G." *Timebri*, no.33: pp.17-22, 2 pls. Oct. 1954. More or less extensive notes on British Guiana Lepidoptera: *Papilio anchisiades* (lime), "*Catopsilia*" *eubule*, "*C.*" *philea*, "*C.*" *staira* (*Cassia* spp.), "*C.*" *argente* (*Pithecolobium*), *Pieris monuste* (*Cleome*, *Gynandropsis*), "*Dione*" *vanillæ* (*Passiflora*), *Anartia jatrophae* (*Ruellia*), *Hemiargus zachæina* (*Vigna luteola*), *Thecla* sp. (*Cordyla cylindrostachya*), *Helicopus cupido* (*Montrichardia*), *Eudamus dorantes* (*Desmodium*), *Mænias laboulberi* (sic!) (*Cabomba* & other water weeds, feeding beneath the surface) (foodplants in parentheses). [P.B.]
- Harcourt, D. G., "A species of *Tetrastichus* new to North America." *Canad. Ent.*, vol.85: p.251. 23 July 1953. Records *T. sokolowskii*, a hymenopterous parasite of *Plutella maculipennis*, previously known from Russia and southern India. [E.M.]
- Harris, Lucien, Jr., "An account of the unusual life history of a rare yucca skipper (Megathymidae)." *Lepid. News*, vol.8: pp.153-162, 3 pls. 7 Jan. 1955.
- Henson, W. R., R. W. Stark, & W. G. Wellington, "Effects of the weather of the coldest month on winter mortality of the lodgepole needle miner, *Recurvaria* sp., in Banff National Park." *Canad. Ent.*, vol.86: pp.13-19, 1 fig. 29 Jan. 1954. Notes correlation of zones of extremely low temperature with zones of high winter mortality. In general, in the Bow valley, regions of extremely low temperature are at high or low elevations, middle altitudes tending to have more moderate temperatures and to act as centres of reinfestation after periods of severe winter kill. [E.M.]
- Jovancevic, M., "Pine caterpillar (*Cnethocampa pityocampa*) found on strawberry trees (*Arbutus unedo*)" [in Serbian]. *Sumarski List*, vol.77: pp.414-426. Sept./Oct. 1953. [Not seen].
- Kasy, Fritz, "*Phytometra* (*Plusia*) *zosimi* Hbn.: über die ersten Stände, Biologie und Züchtergebnisse" [in German]. *Zeits. Wiener Ent. Ges.*, vol.38: pp.321-333. 15 Dec. 1953. Immature stages, biology, and feeding experiments. [N.O.]
- Kurir, A., "Vergrosserung der Zahl der Raupenstadien und Verlängerung des Raupenlebens durch die Nahrung" [in German]. *Bodenkultur*, vol.6: pp.355-382. 1952. [Not seen].
- Leclercq, J. & M., "Sur *Euproctis chrysorrhæa* L. (Lep. Lymantriidae). Parasites - cas d'urtication" [in French]. *Lambillionne*, vol.54: pp.53-55. 25 Aug. 1954. On the parasites of *E. chrysorrhæa* and indication of a case of skin rash cured by the antihistaminic substances. [P.V.]
- Lindsay, I. S., "Influence of temperature on embryonic development of the pale western cutworm, *Agrotis orthogonia* Morr. (Lepidoptera: Phalaenidae)." *Canad. Ent.*, vol.86: pp.557-561, 2 figs. 7 Jan. 1955. Developmental rates at 10, 15, 20, 25, and 30°C. are plotted. A morphological key to stages of development is presented. Development is not completed at 5° or 35°. [E.M.]
- McGuffin, W. C., "Description of larvæ of forest insects: *Syngrapha*, *Autographa* (Lepidoptera: Phalaenidae)." *Canad. Ent.*, vol.86: pp.36-39, 6 figs. 29 Jan. 1954. Describes and distinguishes last-instar larvæ of *S. selecta*, *S. alias*, *S. epigæa*, and *A. ampla*. [E.M.]
- McGuffin, W. C., "Notes on life histories of some Ennominae (Lepidoptera, Geometridae)." *Canad. Ent.*, vol.87: pp.41-44. 28 Jan. 1955. Gives brief notes on *Semiothisa granitata*, *S. sexmaculata*, *Eufidonia discospilata*, *Melanolophia canadaria*, *Campaea perlata*, *Selenia alciphearia*, and *Caripeta divisata*. [E.M.]
- McGugan, Blair M., "Needle-mining habits and larval instars of the spruce budworm." *Canad. Ent.*, vol.86: pp.439-454, 4 figs. 5 Nov. 1954. Needle-mining is established as a regular activity of the young *Choristoneura fumiferana* larva; details of the habit are discussed. Six larval instars are demonstrated by use of head-capsule statistics. Criteria for recognition of instars are discussed. By using a combination of characters, the instars can be distinguished with reasonable accuracy. [E.M.]
- MacKay, Margaret R., "The larvæ of *Choristoneura fumiferana* (Clem.) and *C. pinus* Free. (Lepidoptera: Tortricidae)." *Canad. Ent.*, vol.85: pp.128-133, 14 figs. 15 May 1953. Describes, figures, and compares larvæ of the two spp. [E.M.]
- MacKay, Margaret Rae, "The last-instar larva of *Epinotia medioviridana* (Kft.) (Lepidoptera: Olethreutidae)." *Canad. Ent.*, vol.85: pp.404-407, 14 figs. 4 Dec. 1953. Describes larva reared on *Rubus odoratus*. [E.M.]

- MacKay, Margaret Rae, "The egg and larva of *Coryphista meadi atlantica* Munroe (Lepidoptera: Geometridæ)." *Canad. Ent.* vol.86: pp.284-288, 25 figs. 10 June 1954. Describes and figures larva of *C. meadi atlantica* on the basis of material from Ottawa, Canada. [E.M.]
- McLeod, J. H., "Notes on the lodgepole needle miner, *Recurvaria milleri* Busck (Lepidoptera: Geometridæ), and its parasites in western North America." *Canad. Ent.*, vol.83: pp.295-301, 1 fig. 16 Nov. 1951. Notes on the distribution, life-cycle, and abundance of population identified as *R. milleri*. A number of species of parasites are recorded, and the relative abundance of some of them is discussed. [E.M.]
- MacPhee, A. W., "The influence of spray programs on the fauna of apple orchards in Nova Scotia. V. The predacious thrips *Haplotrips faurei* Hood." *Canad. Ent.*, vol. 85: pp.33-40. Discusses ecology and life history of *H. faurei*, including its role as an egg-predator of *Spilonota ocellana* and *Carpocapsa pomonella*. [E.M.]
- Milianovskii, E. S., & P. I. Mitrofanov, "*Phassus schamyl* as a new pest of grape cultivation in Abkhaz" [in Russian]. *Ent. Obozrenie*, vol.32: pp.82-85. 1952. [Not seen].
- Miller, C. D. F., "Note on *Ancistrocerus parietum* (Linnaeus) (Hymenoptera: Vespidae)." *Canad. Ent.*, vol.86: pp.197-198, 4 figs. 9 July 1954. A nest was provisioned with 5 tortricid larvæ. [E.M.]
- Moucha, Josef, & Dalibor Weiss, "Zur Lebensweise von *Clostera (Pygæra) anastomosis* L." [in German]. *Nachrbl. Bayer. Ent.*, vol.3: pp.68-69. 15 July 1954. Discusses biology. [N.O.]
- Paclt, J., "Systematisches Verzeichnis der in Mitteleuropa als Forstschädlinge auftretende Schmetterlinge" [in German]. *Beitr. Ent.*, vol.3: p.1-29. 1953. Lists Central European moths feeding as larvæ on forest plants. [N.O.]
- Phillips, C. M., Gordon E. Bucher, & June M. Stephens, "Note on preliminary field trials of a bacterium to control the codling moth." *Canad. Ent.*, vol.85: p.8. 30 Jan. 1953. *Bacillus cereus* as a pathogen of *Carpocapsa pomonella*. [E.M.]
- Pinker, Rudolf, "Erfahrungen mit *Gnophos operaria hoefneri* Rbl." *Zeits. Wiener Ent. Ges.*, vol.38: pp.152-154, 2 figs. 15 June 1953. Biology, description of the larva. [N.O.]
- Pollard, D. G., "The occurrence of *Amsacta moloneyi* Druce on cotton in the Sudan (Lepid. Arctiidae)." *Rev. Zool. Bot. Afric.*, vol.49: pp.265-272, 1 fig. 14 Aug. 1954. Description of the larva of *A. moloneyi*, with chaetotaxy; records and observations in the Sudan. [P.V.]

A CORRECTION

Mr. E. L. BELL of New York has drawn my attention to a very serious mistake in my recently published *Catalogue of the American Hesperiidæ*, Volume 4. I have placed the name *otho* Abbot & Smith as a synonym of *Polites coras* Cramer and replaced it in the genus *Wallengrenia* by *pustula* Geyer as a subspecies of *druryi* Latreille. I checked up and found I had entered on my card for *otho* that "the upper figure on Abbot and Smith's plate was to be taken as the type and that it represented *coras*", dated 4th November, 1941. I cannot understand how I came to make this utterly incorrect decision. I can of course think of the further checks I ought to have made. But it is no good crying over spilt milk, and I would ask all possessors of the book to eliminate *otho* as a synonym of *coras*; to place *otho* as a specific name in place of *druryi* and as a subspecific name in place of *pustula*, which name becomes a synonym of *otho*; to alter in the index the reference number for *otho*. In a book of this nature there are certain to be a number of additions and amendments, which can be announced in due course, but in respect of this major blunder I feel that immediate action is needed.

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