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The Canadian Entomologist.

VOL. I.

TORONTO, MAY 15, 1869.

No. 10.

NOTES ON CANADIAN LEPIDOPTERA.

PART III.

BY THE EDITOR.

(Continued from page 72.)

In our last notes we mentioned the names of various species of moths that, on various grounds, are to be dropped from our list of Canadian Lepidoptera; we now proceed to mention those that are to be *added* to the list, as having been captured or determined since its publication in 1865. These, of course, are only what have come under our own notice, but we have no doubt that the number might be largely increased by our readers, notwithstanding that the last two years have been so peculiarly unfavorable to the collectors of Lepidoptera in this country.

Acronycta occidentalis, Grote & Rob. (Pro Ent. Soc. Phil vi. 16)—Taken at London by Mr. E. B. Reed.

Acronycta funeralis, Grote & Rob. (Pro Ent. Soc. Phil. vi. 17, pl. 4.)—Taken at Grimsby by Mr. Pettit.

Acronycta morula, Grote & Rob. (Trans. Am. Ent. Soc ii. 196, pl. 3.) Several specimens taken at sugar, at Cobourg.

Acronycta superans, Guen.—Numerous specimens taken at Cobourg in June, 1865, at sugar. This handsome species may be readily distinguished by its dark primaries, which are conspicuously mottled with white, and have a luteous or orange-colored spot at the base of the inner margin.

Hydracacia sera, Grote & Rob. (Trans. Am. Ent. Soc. i. 345, pl. 7.)—Taken in Canada by Mr. Bowles, of Quebec.

Caradrina multifera, Walk. (C. B. M. x. 293).—Taken at Cobourg. Mr. Walker mentions its capture in Nova Scotia by Lieut. Redman, and thus describes it:—"Cinereous. Thorax and fore wings with blackish speckles. Fore wings with black marks on the costa, with blackish zig-zag transverse lines, with two brownish bands, and with brown marginal dots; orbicular spot small; reniform large, nearly fusiform. Hind wings with whitish cilia. Length of body 5 lines; of wings 12 lines."

Agrotis murænula, Grote and Rob. (Trans. Am. Ent. Soc. i, 352, pl. 7)—Taken at Cobourg. Distinguished by the pearly grey primaries, which are almost destitute of markings; the reniform spot, which forms a blackish blotch, and the dotted transverse posterior line, being alone conspicuous.

Agrotis subgothica, Haworth (*Feltia ducens*. Walk.)—Taken at Orilla by Mr. Bush.

Graphiphora triangulum, Guen.—An European species, taken in many parts of Canada. The primaries are pale brownish, often with a rosy tinge; the basal transverse line is margined with black on both sides, the anterior on the external side; a dark brown or black spot before the orbicular, which is very distinct and well defined, and another black spot between it and the reniform; the claviform spot, as well as the two others, is well marked; sub-terminal line distinct, whitish, preceded by a blackish spot on the costa. Secondaries greyish brown, with paler ciliæ. Alar expansion 1.4 to 1.6 inch.

Graphiphora Dahlvi, Hubn.—Among a collection made by Mr. D'Urban, in Lower Canada, and sent out from England by him to Mr. Reed, of London; the specimens were all determined by Mr. Walker. The species may be briefly described as follows:—Primaries reddish-brown; transverse lines almost obsolete, hoary; median space dark; orbicular spot large, elliptical; reniform conspicuous from its paler margin; secondaries grey-brown. It is recorded as a not uncommon insect in England, and has also been taken in the State of New York.

Xanthia ferruginea, Hubn.—Another European insect, the larva of which is said to feed on the young buds of the poplar. It is not uncommon in Canada in September and October, and even sometimes as late as the end of November. The general color of the primaries is reddish-ochreous, more or less shaded with grey; transverse lines undulating, distinct; orbicular spot pale, of the ground color, but distinctly margined; reniform well defined with its lower half dark grey; a narrow transverse median shade, and a terminal shade clearly divided by the pale undulating sub-terminal line. Secondaries paler ochreous, with transverse median sub-terminal darker lines. Alar expansion 1.4 to 1.6 inch; length of body 0.6 inch.

Xylina Bethunei, Grote & Rob. (Trans. Am. Ent. Soc. i, 354, pl. 7).—“Readily distinguished by its pale color and ochraceous shadings.” Named by the authors after the editor of this journal, who has taken the species at Cobourg, Toronto and Credit, in the months of September and October. It has also been taken by Mr. Pettit at Grimsby, and in other localities.

Cucullia convexipennis, Grote & Rob. (Trans. Am. Ent. Soc. ii, 201, pl. 3).—“Habitat, Atlantic District. Imago flies in July and August. Easily distinguished from the described North American species of the genus by the

convex external margin of the wings, while the primaries above are very distinct in appearance." Their general color is dull pale ochraceous, deeply shaded on the apical half of the costa, and on the inner margin with dark ferruginous. A specimen of this insect has been sent us by Mr. J. M. Jones, President of the Nova Scotian Institute of Natural Science, Halifax, N. S.

Anarta luteola, Grote & Rob. (Pro. Ent. Soc. Phil. iv. 493, pl. 3.)—Taken by Mr. W. Couper in the vicinity of Quebec. Primaries black, with the reniform spot very conspicuous, white; secondaries clear yellow, with a broad neatly defined black border of uniform width. Alar expanse 1.00 inch, length of body 0.50 inch.

Anarta Acadensis, Bethune.—A full description of this new species will appear in the forthcoming number of the Transactions of the Nova Scotian Institute of Natural Science; we shall take an opportunity of transferring it to the pages of this journal at some future time. The species was determined from a specimen sent us by Mr. J. M. Jones.

Phesia mappa, Grote & Rob. (Trans. Am. Ent. Soc. ii. 204).—This very beautiful species is described from a specimen taken by Mr. Bowles at Quebec. We have received a specimen from Mr. J. M. Jones, of Halifax, N. S., and have seen others that were taken in this Province. Its general color is purple rosy, with shades of very deep brown and black, and numerous golden dots and markings.

Anomis grandipuncta, Guen.—Determined for us by Mr. Walker. Taken in great numbers at Cobourg in September, 1865, and not uncommon in various parts of Ontario. In the British Museum Catalogue (Lep. Heteroc. xiii. 989) the specimens are stated to be from South America and the West Indies. The primaries are pale fawn-colour tinged with roseate, with a few scattered reddish streaks representing the transverse lines, and a large blackish-white speckled discal spot in the place of the reniform; secondaries dark greyish cinereous. Alar expansion 1.50 inch; length of body 0.50 inch.

Venia typica, Linn.—A common European insect, also taken in the United States, sent to Mr. Reed in Mr. D'Urban's collection made in Lower Canada. The following is Mr. Stainton's description (Manual, i. 212): "Fore-wings brown, marbled with dark brown; the lines paler; the veins and margins of the stigmata whitish ochreous: hind-wings dark grey. In June. Larva greenish grey, with a faint rosy tint in the incisions; a row of oblique whitish streaks intersect the dark grey sub-dorsal line, and those on the 11th or 12th segments are followed by a black streak; spiracular line whitish, edged above with blackish (*Duponchel*). On dock, willow-herb, &c. When young the larva is quite gregarious, and almost defoliates the plant on which it occurs."

Syneda Hudsonica, Grote & Rob. (Pro. Ent. Soc. Phil. iv. 494, pl. 3).—

We took a specimen of a lovely moth at Credit last year, which we consider to be this species. It chiefly differs from the G. & R.'s description and figures in the much greater width of the black markings on the secondaries, thus leaving much less of the extremely pale yellow ground colour. We do not attempt a brief description, as it would necessarily be quite inadequate; we must therefore refer our readers to the full account by the authors.

Parthenos nubilis, Hubn.—This handsome species of the family *Cutocalidæ* may be readily distinguished by its beautifully mottled black and white primaries and luteous secondaries, the latter especially being remarkable for having three undulating black transverse bands, and a marginal series of confluent, round black spots. We took several specimens at Credit in June, 1868, mostly attracted by light.

Erebus odora, Linn.—Two specimens of this gigantic moth have been taken in Canada; one by Dr. Sangster at Toronto, the other by Mr. B. Billings at Ottawa. In the British Museum Catalogue specimens are related to have been captured on the "West Coast of America," "off the Coast of Brazil, 120 miles due East of Espirit Santo," Brazil, West Indies. It has also been taken in the United States. The wings expand about five inches and are deep blackish, with numerous transverse black lines, and on the primaries a large incised discal spot.

Remigia latipes, Guen.—Taken at Cobourg, and also by Mr. Pettit at Grimsby. Distinguished by its extraordinary posterior tarsi, which are densely fringed with excessive long hairs. The primaries are cinereous, thickly sprinkled with blackish scales; the two interior transverse lines are distinct, almost straight, oblique and converging; discal spots tolerably distinct, finely margined with black, subterminal space much darker, sharply defined anteriorly by the posterior transverse line; submarginal line indicated by a row of blackish spots. Secondaries dark cinereous, with a transverse line of blackish spots, and a broad blackish border. Alar expansion 1.75 inch; length of body 0.7 inch. This species was determined for us by Mr. Walker.

The following species, of other families than the *Noctuidæ* are also to be added to our Canadian Lists:—

Drymonia? confusa, Walk. (Cat. Brit. Mus. xxxii. 413). Taken at Orillia by Mr. Bush.

Dasychira clandestina, Walk. (Can. Nat. & Geol. vi. 36, Feb., 1861.) Taken by Mr. D'Urban at Bevin's Lake, Montcalm, P. Q., July 7th, 1869. A specimen of this insect is in the collection before alluded to, sent by Mr. D'Urban to Mr. Reed.

Anisopteryx vernata, Peck. (Harris' Ins. Mass. p. 461): This destructive insect, well-known under the name of "Canker-worm," is related in the

Canada Farmer, for May 1 1867, to have been taken at Grimsby in the previous November by Mr. Pettit.

Larentia geminata, Grote & Rob. (Pro. Ent. Soc. Phil. vi. 29, pl. 3).—“Readily distinguished by its pale coloration, its conspicuous irregular black bars associated with faint yellowish coincident shades.” Taken by Mr. Pettit at Grimsby, also found in other localities.

Carpocapsa pomonella, Linn.—Strange as it may appear, this terrible pest of fruit growers, the Apple Codling Moth, which destroyed probably one-half of the apple crop last year in Canada, has not had its name entered upon our List of Native species; we only wish it were an entire foreigner. A good account, with figures, of the insect is given in our friend Mr. Riley's First Report, p. 62.

Pempelia grossulariæ, Packard. (*Guide*, Part vf. p. 331, fig. 254). This new Gooseberry worm, first discovered by our esteemed coadjutor, Mr. Saunders of London, Ont., must now be added to our List. An excellent account of it in all its stages is given in Mr. Riley's Report, p. 140.

Anchylopera fragaria, Walsh & Riley. (*Amer. Entom.* i. 89, fig. 75, Jan. 1869.) “The Strawberry Leaf-roller”—another new destructive insect which, *vide Canada Farmer* (Feb. 1869), is also to be added to our List.

Now that we have completed our task, and brought our List of Canadian Lepidoptera—with many omissions no doubt, but to the best of our ability—down to the present time, we trust that our readers will assist us in recording in the pages of the CANADIAN ENTOMOLOGIST, any new additions that may be made from time to time to our knowledge of the Lepidoptera of this country.

MISCELLANEOUS NOTES.

ALDER-BUD GALL.—The gall on *Alnus*, mentioned on p. 81 of your last number, is probably the one described by me on p. 198 of vol. i. of the Monographs on N. A. Diptera, under the name of *Cecidomyia serrulutæ*. I obtained at that time the perfect insect.—R. OSTEN SACKEN, New York, April 22, 1869.

A CURCULIO NEW TO CANADA.—In the *Canada Farmer* for March, 1869, page 98, mention is made of the capture, in July, 1868, of a specimen of *Lixus concavus*, Say, by Mr. J. M. Bristol, of Virgil, County of Lincoln, Ont. A pair of specimens of this insect were sent us last year by Mr. James Angus, of West Farms, N. Y., but it was not known before to occur in Canada. The following is Mr. Say's description (*Ent. Works*, vol. ii., p. 275):—

“*L. Concavus*.—Base of the thorax and of the elytra with a common dilated indentation. Inhabits Indiana.

"Thorax convex each side, much contracted before, with very small punctures; dorsal indentation obsolete near the anterior margin and in the middle, profound at base: elytra with regular punctured striae, not rugose; base with a dilated common deep indentation equalling that of the thorax, and another smaller indentation on the middle of the base: thighs unarmed. Length over half an inch.

"Common, and is the largest species that I have met with in this country. The hair of the body detains a yellowish ferruginous dust, which often gives the whole insect that color."

EXCHANGES.

LEPIDOPTERA. Of Northern United States in exchange for those of the Southern United States, Canada, East Indies and South America. Correspondence also solicited. W. WEBSTER BUTTERFIELD, M. D., P. O. Box 111, Indianapolis, Indiana, U. S.

LEPIDOPTERA.—Of Pennsylvania, in exchange for those of Canada.—F. M. YEAGER, Reading, Pa., U. S.

LEPIDOPTERA.—I am very anxious to secure a correspondent in Canada who would give me in exchange Lepidoptera (Rhopel. et Heteroc.) from Canada, Labrador, and British America generally, for some from Penn., Virginia, Georgia, Florida, California, Europe, S. America, etc.—HERMAN STRECKER, Box 111, Reading, Berks Co., Penn., U. S.

EUROPEAN DIPTERA.—A large collection has been entrusted to me, which will be exchanged for American Diptera, Orthoptera, Hymenoptera, Coleoptera and Lepidoptera; preference given to the orders in the sequence named.—Rev. C. J. S. BETHUNE, Credit, Ont.

EphemERIDÆ.—An English Entomologist studying this tribe thoroughly, earnestly desires American specimens, for which other English insects will be given.—Address EDITOR CAN. ENTOMOLOGIST, Credit, Ont. ♦

HYMENOPTERA.—Now that the collecting season has begun again, we beg to remind our readers that Mr. E. T. Cresson, of Philadelphia, is desirous of obtaining specimens of Canadian Hymenoptera. He will gladly determine specimens for any one who will send a duplicate set, numbered to correspond with their cabinet specimens, to the care of JOHNSON PETTIT, Esq., Grimsby, Ont.

BOOKS RECEIVED.

First Annual Report on the Noxious, Beneficial, and other Insects of the State of Missouri. By Charles V. Riley, State Entomologist. Jefferson City, Mo., 1869. (Price \$1, plain plates; \$2 colored.)

We gladly notice the receipt of this excellent Report, which is of interest and value not only to farmers and gardeners, for whose especial benefit it is prepared, but also to all who study the ways and doings of insects. We may

particularly call attention to the chapter on Cut-worms, in which is related the natural history of twelve species, some of them new to science; the account of new Grape insects, and various other species, described now for the first time. The work is illustrated by nearly 100 wood-cuts, and two full-page plates; and bears testimony throughout to the faithful and painstaking labors of the author both in the field and in the study. The Legislature of the State of Missouri deserves much credit for its enlightenment in thus fostering the study of practical entomology; we earnestly trust that our Canadian Government will speedily see the benefit of following so good an example. ☉

Report on the Culture of the Japanese Silk-worm, Bombyx Yama-mai, in 1867-68, in England. By Alexander Wallace, M. D., Colchester, 1869. This pamphlet (for which we have to thank Mr. W. V. Andrews, the author's New York agent), contains a very full and minute account of Dr. Wallace's experiments in the cultivation of this noted Japanese silk-worm. If patience and perseverance can ensure success, Dr. W.'s efforts ought certainly to be rewarded by freedom from failure; such, however, we gather from his Report, has not yet been the case, though he has attained some success, and has raised a few genuine specimens. Any one interested in the culture of these creatures, or other species of Bombyces, will find very many useful details as to management, food, etc., in this work.

Hardwicke's Science-Gossip: A Monthly Medium of Interchange and Gossip for Students and Lovers of Nature. January to May, 1869. London: R. Hardwicke, 192 Piccadilly. (4s. per annum.) An excellent and entertaining periodical, handsomely illustrated; it is largely occupied with microscopy, but entomology and other branches of natural science receive a due share of attention.

Le Naturaliste Canadien. Quebec, No. 5, April, 1869.

Proceedings of the Boston Soc. Nat. Hist. Vol. xii., April, 1869, pp. 305-400

The American Naturalist. Salem, Mass., Vol. iii., May, 1869.

The American Entomologist. St. Louis, Mo., May, 1869.

The American Agriculturist. New York, May, 1869.

The Canada Farmer. Toronto, April, 1869.

The Maine Farmer. Augusta, Me., March 20, 27, April 3, 10, 17, 24.

The Weekly N. Y. Sun. New York, April 7, 14, 21, 28.

Bulletin of the Museum of Comparative Zoology. Cambridge, Mass., Nos. 1 to 7, 1863-69.

The Butterflies of North America; with Colored Drawings and Descriptions. By Wm. H. Edwards. Philadelphia: The American Entomological Society, Part 3, December, 1868.

After a long delay—caused, we regret to learn, by the illness and subsequent death of the artist at first engaged upon the plates—another part of this truly magnificent work has been issued. It contains very beautiful and accurate figures of the following species: *Argynnis Monticola*, Behr, taken in California; *A. Halcyone*, Edwards, from Colorado; *Limenitis Proserpina*, Edw., taken in

the Catskill Mountains; *Lycæna violacea*, Edw., from Virginia, Philadelphia, and London, Ont.; *L. Lygdamas*, Doubleday, found in Michigan, Ohio, Virginia, and through the Southern States; *Thecla tæta*, Edw., first taken by Mr. Saunders, at London, Ont., afterwards in Maine and Western Virginia; *T. Acadia*, Edw., taken in Canada near London, Ont., and in various parts of New England and New York. The promised synopsis of North American species is begun in this part. The price to new subscribers is now raised to \$2.50 (U. S.) per part, in consequence of the increased expense of the drawings on stone, and coloring of the plates.

TO CORRESPONDENTS.

SUBSCRIPTIONS RECEIVED.—To Vol. i., from H. S., F. M. Y., Reading, Pa. To end of Vol. ii., from the Soc. Nat. Sci., Reading, Pa.

H. T. S., Lewisham, Eng.—Have sent Nos. 1 and 2, as requested.

F. W., Wanstead, Eng.—C. B. M., part v. received; many thanks; have sent you the numbers so far issued of the *American Entomologist*.

J. M. J., Halifax, N. S.—Thanks for the two papers, just received.

SHEET CORK.—We have still some sheet cork on hand; ordinary thickness, 16 cents per square foot; extra thick, 24 cents.

ENTOMOLOGICAL PINS.—We have ordered 100,000 pins, the same quality as our last supply, which gave so much satisfaction, from W. Klæger, the celebrated German manufacturer; all sizes from No. 1 to No. 6. We expect their arrival next month, and shall be glad to receive early orders from our readers.

THE CANADIAN ENTOMOLOGIST is published on the 15th of each month by the Entomological Society of Canada. In consequence of the new Postal Law, which requires pre-payment of all Periodicals after January 1, 1869, we are constrained to make a slight change in the rates of subscription as follows:—

To members of the Society, gratis.

To non-members (in Canada) 56 cts. per vol., post-paid; 2 copies to one address, \$1.

To subscribers in the United States, 62 cents per volume, free of Canada postage.

The ordinary U. S. fractional currency may be sent.

To subscribers in Great Britain. Three Shillings per volume, post-paid. The amount may be sent in stamps.

Extra copies 5 cents each, 50 cents per dozen.

N. B.—Correspondence is invited respecting the habits, localities, occurrence, &c., of insects, as this journal is intended to be a medium for the recording of observations made in all parts of the country; insects for identification will be gladly attended to and returned when desired. Any contributions to the publication fund will be thankfully received and gratefully acknowledged.

The *American Entomologist* (\$1) and the *Canadian Entomologist* (56 cents) will be furnished post paid, for one dollar and twenty-five cents (\$1.25) per annum.

All communications, remittances and exchanges, should be addressed to

“THE REV. C. J. S. BETHUNE, *Credit, Ont., Canada.*”