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The Canadian Entomologist.

VOL. 1.

TORONTO, NOVEMBER 16, 1868.

No. 4.

ENTOMOLOGICAL NOTES.

PAPER No. 11.

BY W. SAUNDERS, LONDON, ONT.



Fig. 1.

in August. She found it settled on the sand, and it seemed at first partially torpid, but when captured used its wings freely in trying to escape. It is a very peculiar insect, with very long palpi. Fig. 1 is a representation of it, and we subjoin a description as well.

Palpi very long, fully one fifth of an inch, formed like a beak, brown above, whitish below. Body dark brown, with a faint metallic hue; paler below.

Wings angular, expand $1\frac{3}{4}$ inches. Primaries above dark brown, with three white spots arranged in a triangle near the tip. The upper interior one largest, oblong, irregular in outline, divided by the nervules at its upper edge; the lower is also oblong but smaller; the exterior is smallest and irregular in form. On the interior of the wing, beyond the middle, are two large fulvous spots, the upper elongated, pointed at each end—the lower oblong, irregular, and divided near the middle by a dark brown nervule.

Secondaries above dark brown, with a large irregular fulvous patch across the middle.

Under side of primaries paler than upper, with the same white spots and fulvous markings, the latter somewhat larger and coalescing. The tip has a faint bluish tinge, with a slight iridescence.

Secondaries with a wide brown border on hind margin, above bluish, iridescent, streaked with brown.

This butterfly is quite new to Canada, never having been taken here before to our knowledge. It is found in Ohio and in some other parts of the United States.

A short time ago I forwarded to W. H. Edwards, Esq., of Coalburgh, West Virginia, several specimens of *Lycæna*, which I was in doubt about, for determination. Some were taken by myself about London, others had been received from J. Pettit, Esq., of Grimsby. In a recent letter Mr. Edwards informs me that the box was broken in transit and the specimens almost demolished, but he observed among the fragments wings of *Lycæna violacea* Edwards, one of which belongs to a female. This species resembles "*lucia*" in appearance; the points of difference between them are detailed at length by Mr. Edwards in the Proceedings of the Entomological Society of Philadelphia, vol. vi., p. 201 to 204. I incline to think that the specimens sent Mr. Edwards, which he has determined to be *violacea*, were from Mr. Pettit's collection, but cannot say positively. These additions, with the new species referred to in the last number, by E. B. Reed, Esq., bring up our list of Canadian butterflies to eighty-five.

Philampelus satellitia.—One of our London Entomologists, J. M. Denton, Esq., has been so fortunate as to secure two specimens of the larva of this very rare insect this season. They were taken nearly full grown on the Virginia creeper (*Ampelopsis quinquefolia*), they were of the dark variety, about three inches long, blackish brown, with six large oval cream-colored spots on sides; these spots formed a very striking contrast with the general color. The usual caudal horn is replaced in this species by a smooth raised eye-like spot. One of these larvæ is now in chrysalis. Several years ago a lady brought me a specimen of the same larva, but I did not succeed in rearing it. These are the only instances known to me of the finding of this insect about London.

On the 11th of August I was collecting insects near Milton Junction, Wisconsin, on the Chicago and North Western Railway. While walking along the railroad track I observed a cocoon very like that of *Spilosoma Isabella*, fastened to the upper part of the stem of an annual plant which, in consequence of the intense heat of the summer, was prematurely withering. I was much interested in this pupa. Could it be *Isabella*? If it was it must either be the cocoon of a larva of last year's growth, which had spent the winter and nearly all the hottest part of summer in the caterpillar state—a thought I could not for a moment entertain—or it must be from a larva of the present year, resulting from eggs laid late in June. Both these conclusions being beset with difficulties, I inclined to the view that it might be the pupa of an Arctian I had not met before. So it was carefully boxed up. Early in September, after

my return home, this box was examined and found to contain a genuine *Isabella* moth recently escaped from the chrysalis. If this insect had been left to nature would it have spent the winter in a torpid state; or would it have deposited its eggs and died before the severe weather came on?

But further. Early in September Mr. E. B. Reed, while collecting at Amherstburg, took a specimen of *Arctia phalerata*, Harris, and one of *Arctia Saundersii*, Grote. My specimens of *Saundersii* have invariably been taken in June and July, and having reared this insect through its several stages, I am conversant with its history. It appears in June, deposits its eggs early in July, and dies. The larvæ do not complete their growth the first season, some of them indeed do not acquire more than half their size when they hibernate for the winter; completing their growth early the following spring, when they enter the chrysalis state and appear as moths in June again. Probably the habits and history of *P. phalerata* are similar. How came it that these moths—good specimens too—were abroad in September? During the latter part of August I was surprised to find the imago escaping from some chrysalides of *Daapsa pampinatrix*, which were obtained from larvæ gathered late in July. I at first thought this might be an exceptional instance, but was soon convinced of the contrary by the appearance of a second brood of the caterpillars on my grapevines, in numbers far surpassing the earlier brood. I also observed the moth about on the wing. Some of them appeared so late that the larvæ have not had time to complete their growth and must necessarily perish. Only yesterday, October 8th, I found them not more than half grown, nearly frozen, clinging to the under side of the dry frosted leaves, which they could not eat.

About the middle of September a friend of mine who had laid aside some pupæ of *Sphinx quinquemaculata* for next year, was astonished to find the moths buzzing about in his box. They had all escaped. My esteemed friend Rev. C. J. S. Bethune, informs me that he has had a similar experience with the pupa of *Sphinx cinerea*.

What is the occasion of all this? Can it be due to the unusual heat of the summer maturing these creatures before their time?

MEETING OF THE ENTOMOLOGICAL SOCIETY.

A meeting of the Society was held on the 10th inst. in the rooms of the Canadian Institute, Toronto; Mr. W. H. Ellis, Curator, in the Chair. After the reading of the minutes, the following gentlemen, nominated at the Annual General Meeting of the Society at London, were unanimously elected Honorary Members:—

E. T. CRESSON, Esq., Secretary to the American Entomological Society, Philadelphia, Pa.

W. H. EDWARDS, Esq., Coalburgh, Kanawha Co., West Va.

PROF. TOWNEND GLOVER, Agricultural Department, Washington, D. C.

AUGUSTUS R. GROTE, Esq., New York.

DR. GEORGE H. HORN, President of the American Entomological Society, Philadelphia, Pa.

DR. J. L. LECONTE, Philadelphia, Pa.

DR. A. S. PACKARD, JUN., Editor *American Naturalist*, Salem, Mass.

C. V. RILEY, Esq., State Entomologist of Missouri, St. Louis, Mo.

S. H. SCUDDER, Esq., Secretary, &c. to the Society of Natural History, Boston, Mass.

BENJ. D. WALSH, Esq., M. A., State Entomologist of Illinois, Rock Island, Illinois.

The following gentlemen were also elected members :--

MARMADUKE S. RICHMOND, Esq., Wooler, Ont., to be an Ordinary Member.

JOHN FLETCHER, Esq., Detroit, Michigan, (late of Oakville, Ont.,) to be a Corresponding Member.

A vote of thanks was passed to F. Walker, Esq., of Elm Hall, Wanstead, Essex, England, for his kind donation of two boxes of specimens of various orders of British and Foreign insects.

A collection of *Cicindelidæ* was exhibited by the Rev. C. J. S. Bethune, after the examination of which, as well as of the new donations, the meeting adjourned.

NOTICE OF A STATION FOR MELITÆA PHAETON IN THE NEIGHBOURHOOD OF OTTAWA, ONTARIO.

BY B. BILLINGS.

Early in July I accidentally discovered a locality for this rare butterfly within two miles of the city limits. It is an open swamp, densely surrounded with coniferous trees, which are almost impenetrable except by a path which passes through them. It occupies an area of about eight or ten acres, with a few scattered trees of *Thuja occidentalis* and *Larix Americana*. The shrubs consist of *Alnus incana*, *Rhamnus alnifolius*, *Rubus triflorus*, *Ledum latifolium*, and an occasional clump of *Cornus stolonifera*, *Myrica Gale*, and *Salix candida*. The principal herbaceous plants are *Thalictrum Cornuti*, *Chelone glabra*, *Platanthera hyperborca*, *P. dilatata*, *Cypripedium pubescens*, *C. spectabile*, and a few grasses and sedges. *Aspidium Thelypteris* is very

abundant, and the surface to a great extent is covered with several species of our most common *Hypnum*.

This season I watched faithfully for the appearance of the imago, making occasional visits to the spot during the month of June. It was first observed on the 3rd of July, and between this time and the 20th I made five or six excursions, capturing during the period over 200 specimens. I seldom met with them on the wing, but generally resting on the alders or ferns. They were not difficult to capture, appearing quite tame, and when aroused would fly but a few yards and alight; even if one escaped from the net it would fly but a short distance, and could be easily recaptured. On dull days they were quite sluggish, sleeping exposed on the upper surface of leaves, and readily taken without the aid of the net.

It is not improbable that they are double brooded, the *larvæ* produced from the eggs of the second brood not appearing until the following spring. I conjecture this from the circumstance of having two years ago seen a female late in August or early in September.

MISCELLANEOUS NOTES.

CAPTURE OF *TREMEX COLUMBA*.—One of the objects which the promoters of the *Canadian Entomologist* had in view, in the establishment of that periodical, was, I apprehend, to convey information respecting the appearance of various insects, whether of common or of rare occurrence, within the limits of our Province. Under this impression, I send you a notice of the capture of some specimens of the *Tremex Columba* in our village, a few days ago. Last March, an oak, measuring nearly three feet in diameter at the butt, was felled and chopped into cordwood lengths. One of the pieces, a portion of the main stem, was split up the other day, and placed close to a stove for immediate use. On being thus subjected to the influence of heat, several individuals of the insect, in the *imago* state, crept out, from various perforations, in a semi-torpid condition, that is to say, they appeared barely able to crawl about, and made no attempt to use their wings or even to hasten their pedal movements for the purpose of escaping capture. On further search *larvæ* were also discovered in the wood. I regret to add that all the specimens I found were females. Their length, exclusive of the ovipositor, was $1\frac{1}{2}$ in. This is the first occasion of my discovering these insects in this locality.—VINCENT CLEMENTI, North Douro, Ont.

LUMINOUS LARVÆ.—With reference to our account of a Luminous Larva in No. 1, Mr. W. Couper, of Ottawa, Ont., writes as follows:—"I frequently found larvæ of *Lampyridæ* in the daytime under moss and bark of decayed trees, but never noticed them produce light, as you describe. I do not recol-

lect seeing larvæ of *Lampyris* of the length of an inch and a-half. I enclose the exuvia of a larva of one of the genera of this family, which I found under bark here. Has it the form of your insect? I do not believe that the larvæ of *Lampyris* enclose themselves in cocoon-like balls such as are formed by the larvæ of *Geotrupes* and *Osmoderma*. As you can see from the exuvia, its transformation is evidently similar to that of *Dermestes lardarius*, and other active Coleopterous larvæ." [Our larva was immensely larger and quite different from the owner of the exuvia sent us by our correspondent; his looks very like the larvæ of *Chauliognathus pensylvanicus*, a very common insect here, figured in the last number of the *American Entomologist*, but we could hardly judge from a cast-off skin. We have, however, sent it, together with a luminous female captured by Mr. James Angus at West Farms, N. Y., and another taken by ourselves here, to Philadelphia, for identification.]
 --Ed. C. E.

EXCHANGES.

EUROPEAN DIPTERA, &c.—I have a large number of English, European, and Exotic Diptera, entrusted to me for sale or exchange; in the latter case, Hymenoptera, particularly the parasitic species, and minute Coleoptera, are chiefly requested in return.—F. WALKER, Elm Hall, Wanstead, Essex, Eng.

COLEOPTERA.—I have been collecting Coleoptera for many years past, but am still in want of many northern species: shall be glad to exchange.—J. AKHURST, 4½ Prospect Street, Brooklyn, N. Y.

LEPIDOPTERA.—I wish to obtain any species of Labrador or other far north butterflies, for which I would make a good return. I have a large number of specimens of various *Catocalus*, which I would gladly exchange for the following species: *C. relictæ*, *unijuga*, *u. n.*, *epione*, *polygama*, *briseis*, *vidua*.
 —JAMES ANGUS, West Farms, N. Y.

. We insert lists of specimens for exchange free of charge to subscribers. Of course it is understood that an actual *quid pro quo* is not expected, but that all Entomologists are willing to help one another to the best of their ability, without making a mercenary transaction of the exchange.

NEW ENTOMOLOGICAL WORKS.

LIST OF THE LEPIDOPTERA OF NORTH AMERICA. By Aug. R. Grote & C. T. Robinson. Part I. Philadelphia: American Entomological Society. September, 1868.

In 1860 the Smithsonian Institution published a catalogue of the described Lepidoptera of North America, prepared by the Rev. Dr. Morris, which has proved of very great value to the students of this order of insects. Since

then vast strides have been made in the study, a multitude of new species and new genera have been added to our Fauna, and thorough revisions of the synonymy, nomenclature, and natural affinities of many families have been published; a new list has thus become an absolute necessity to those who desire to keep up with the progress of the science. We are glad to find that Messrs. Grote & Robinson have undertaken the work, to properly accomplish which no more competent Entomologists could have been found.

The part before us contains the Sphingidæ, Egeriadæ, Thyridæ, Zygaenidæ, and Bombycidæ; the Butterflies are soon to follow, but the remaining families of moths are to await the publication of monographic papers now in course of preparation. The List is clearly and beautifully printed in the same style as Dr. LeConte's Catalogue of Coleoptera. Among the Sphinges we notice that the name *Otus* has been dropped and *Darapsa* resumed, the former being pre-occupied in Ornithology, as we observed in our last issue; in the case of *Daremma undulosa*, Walker's specific name is retained. The publication of this List will render unnecessary our doing more than merely referring to the changes of name in Canadian species in our notes on Lepidoptera, as the synonymy is fully given in regular sequence. Might we suggest to our authors the publication of a List with reference to descriptions, in a similar manner to Melsheimer's and Morris' Catalogues, so that the student might know where to look for descriptions of the species and genera?

THE INSECT WORLD; being a popular account of the orders of Insects, together with a description of the Habits and Economy of some of the most interesting species. From the French of Louis Figuier. Illustrated by 564 wood-cuts, by M. M. E. Blanchard, Delahaye, after Reaumur, etc. New York: D. Appleton & Co., 1868. Toronto: Adam & Stevenson. Price \$4.50.

The title of this handsome work, which we have given in full, will afford our readers a good idea of its general character. It is a popular and very readable book, profusely illustrated, and as far as we can judge from a limited examination, quite reliable in its statements. It will no doubt be found valuable by beginners in Entomology, though to residents in America it possesses the drawback of referring for the most part to European species of insects, which are not found on this side of the Atlantic.

BOOKS RECEIVED.

Proceedings of the Boston Society of Natural History. Taken from the Society's Records. Vol. xii., June to October, 1868.

The American Entomologist. St. Louis, Mo., October and November, 1868.

The Maine Farmer. Augusta, Me., September 3, 10, 19, 26, October 3, 10, 17.

TO CORRESPONDENTS.

M. S. H., East Liverpool, Ohio.—The *Canadian Naturalist and Geologist* was published by the Natural History Society of Montreal. It commenced in February, 1856, since which time eight volumes of the old series, and Vols. i. and ii., with three numbers of Vol. iii. of the new series, have been published. The last number, that for May, 1867, appeared in January last, since which time we regret to say, the publication has been discontinued, but we trust it will soon be resumed.

J. F., who has lately removed from Canada to Detroit, Mich., wishes to know whether there are any Entomologists in his new place of abode. We do not know of any ourselves, but perhaps some of our readers, who may be better acquainted with the locality, will kindly inform us.

G. M. M., Fort Reynolds, Col.—Have sent a specimen number as desired.

B. B., Ottawa; T. R., Montreal.—The cork, we regret to say, has not yet arrived; we shall send you the quantities you desire immediately upon its receipt.

SUBSCRIPTIONS to Vol. i. have been received, with thanks, from the following:—H. L. M., Malden, Mass.; E. L. G., and J. A., Brooklyn, N. Y.; Dr. W. E. M., Grimsby, Ont.; J. A., West Farms, N. Y.; F. G. S. (with addition from S. H. S., Boston, Mass. To Vol. i., with the *American Entomologist*, from Dr. R. H. G., Bayfield, Ont., and Rev. L. P., Portneuf, P. Q.

B. B., Ottawa, Ont.—The large Moth, of which you sent us a drawing, is a specimen of *Erebus odora*, Linn. This fine insect has also been taken at Toronto, by Dr. Sangster, who kindly gave us an opportunity of comparing his specimen with your drawing.

THE CANADIAN ENTOMOLOGIST is published, not oftener than once a month, by the Entomological Society of Canada at the following rates:—

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Extra copies, 5 cents each, 50 cents per dozen.

Suitable advertisements will be inserted on reasonable terms.

N. B.—Correspondence is invited respecting the habits, localities, occurrence, etc., 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.

All communications, remittances and exchanges should be addressed to "THE REV. C. J. S. BETHUNE, Credit, Ont., Canada."