NEW AND CORRECTED BUTTERFLY RECORDS FOR ONTARIO AND FOR CANADA

J. C. E. RIOTTE

Royal Ontario Museum, University of Toronto, Ontario

While arranging the butterfly collection of the Royal Ontario Museum, University of Toronto, the present writer discovered some interesting new records of butterflies from Ontario, some of which establish new records for Canada. These records are presented in two sections. The first represents additions to my previous summaries of the distribution of butterflies in northern Ontario (Riotte, 1959 and 1962). The second section contains additions to C. J. S. Bethune's work (1894) on the butterflies of the eastern provinces of Canada, which is still the only available list of the butterflies in southern Ontario.

I. Additions to the northern Ontario list:

a) Additional species

Pieris occidentalis Reakirt: this should replace the entry of Pieris protodice Boisduval and Le Conte in Riotte (1959). The northern Ontario population is quite distinct from the southern one. The specimens from Lansdowne House in the Royal Ontario Museum conform to a long series of this butterfly from Manitoba, Alberta and British Columbia. Also the male genitalia show the same characters both in the Ontario and in the western specimens and are quite different from and easily separated from the genitalia of the southern Ontario protodice. Following Chang (1963) occidentalis is treated here as species. In Ontario occidentalis and protodice do not overlap geographically. As far as known there are approximately 700 mi. between the two populations.

Satyrium edwardsii Saunders: Fort William—mid-August.

Callophrys (Incisalia) eryphon (Boisduval): Nakina, (Lake) Nipigon, Quetico Park—late May to mid-June. The locality "Quetico Park" should be deleted under no. (413) in Riotte (1959). The writer was warned of the possibility of the occurrence of eryphon in Ontario by what seemed to be a unique collection of this species in Michigan, in Luce and Chippewa Counties, by M. C. Nielsen (1966). C. eryphon and niphon are very easily mistaken for one another and dissection is advisable to insure proper identification. In the case in question, the Ontario specimens correspond to a series of eryphon from British Columbia and an examination of the genitalia confirmed that they were eryphon. This occurrence of eryphon in the east is analogous to the occurrence of the "eastern" niphon in Colorado, as published by F. M. Brown (1955).

Everes comuntas (Godart): Geraldton, Nakina, S. Neebing Township

(Thunder Bay District), Nipigon, Sudbury—late June to mid-August. This species is an interesting addition to the northern butterfly fauna. It is found with *E. amyntula* (Boisduval), *e.g.* at Geraldton, Nakina, Nipigon, Sudbury. It has a partial second generation in warm years.

Oeneis melissa semplei Holland: Cape Henrietta Maria, July 6 and 13, 1948.

Oeneis polixenes (Fabricius): Fort Severn, July 9, 1940. This and the foregoing species should replace Oeneis t. taygete Geyer in Riotte (1959), according to recent determinations.

b) Additional localities for previously recorded species

Papilio machaon hudsonianus Clark: Cochrane, May 24, 1958 the southeasternmost known occurrence), S. Neebing Township (Thunder Bay District, 5 miles SW of Fort William), June 21, 1963 (the southernmost known occurrence).

Papilio glaucus canadensis Rothschild & Jordan: Peninsula (Thunder Bay District).

Euchloe ausonides mayi Chermock & Chermock: Geraldton, 7 mi. E. of Jellicoe.

Callophrys (Incisalia) augustinus (Westwood): Driftwood, 106 mi. W. of Kapuskasing.

 $Vanessa\ atalanta\ (Linnaeus)\colon$ S. Neebing Township (Thunder Bay District).

Nymphalis milberti (Godart): S. Neebing Township (Thunder Bay District).

Phyciodes batesii (Reakirt): Amyot.

Melitaea nycteis drusius (Edwards): Amyot.

Boloria f. freija (Thunberg): Driftwood, Monteith.

Boloria titania grandis (Barnes & McDunnough): Mississauga.¹

 $Boloria\ eunomia\ dawsoni$ (Barnes & McDunnough): Nipigon, 10 miles NE of Nipigon.

Speyeria aphrodite winni (Gunder): Favourable Lake.

Cercyonis pegala nephele (Kirby): S. Neebing Township (Thunder Bay District).

Oeneis macounii (Edwards): Nakina.

Erebia d. discoidalis (Kirby): Monteith (observed), Nakina.

Hesperia sassacus manitoboides (Fletcher): has been re-taken in Nipigon on June 27, 1966; up till now the original specimens collected by Fletcher at Nipigon in 1901 were the only known ones from this locality.

¹ Correction: In Riotte (1962) "Oog Lake" under *Boloria titania grandis* should read "Dog Lake." In addition, "S. Neeling twsp." should read "S. Neeling twsp." through the whole paper.

II. Additions to the southern Ontario list:

Phoebis sennae eubule (Linnaeus): one male and one female, Point Pelee, September 20, 1953; new for Canada.

Phoebis philea (Johansson): two females, Vineland, July 1944 and September 1930; new for Canada, considered to be a straggler from the south.

Nathalis iole Boisduval: Bridgenorth near Peterborough, 1947; Sault Ste. Marie, without further dates, in the Lyman Collection (Macdonald College, Ste. Anne-de-Bellevue, Qué.).

Callophrys (Incisalia) eryphon (Boisduval): Port Hope.

Asterocampa celtis (Boisduval and Le Conte): Pelee Island, July 5–14, 1950; July, 7–9, 1965; Point Pelee, June 29, 1965.

Asterocampa clyton (Boisduval and Le Conte): Kitchener, no date available; London, July 11, 1955 (in the collection of the University of Western Ontario in London); Pelee Island, July 13–27, 1950; Point Pelee, August 20, 1920.

Speyeria idalia (Drury): Grand Bend, no date available; Hyde Park Corner, September 7, 1919; Rondeau Park, 1964.

Speyeria aphrodite alcestis (Edwards): Hyde Park Corner, July 16 and 21, 1909; new for Canada.

Two other remarkable records, noted by Bethune, are: Melitaea gorgone (Hübner) from Toronto and Callophrys (Mitoura) gryneus (Hübner) from Point Pelee. The first dates from 1891 on the Humber Plains, west of Toronto, where it was taken together with Graphium marcellus (Cramer) and Colias (Zerene) cesonia (Stoll): all three have not been taken again in the Toronto area. C. gryneus, however, was taken in 1963 in Hastings County. This area is north of Lake Ontario where the foodplant red cedar (Juniperus virginiana) is abundant (A. Holmes, in litt.). The specimens are deposited in the Royal Ontario Museum.

LITERATURE CITED

Bethune, C. J. S., 1894. The Butterflies of the eastern Provinces of Canada. Ann. Rep. Ent. Soc. Ont., 25: 29–44.

Brown, F. M., 1955. Colorado Butterflies. Proc. Denver Mus. Nat. Hist., vol. 5, 143 pp.

Chang, V. S. C., 1963. Quantitative analysis of certain wing and genitalia characters of Pieris in western North America. J. Res. Lepid., 2(2): 97–125.

Nielsen, M. C., 1966. Occurrence of *Callophrys eryphon* (Lycaenidae) in Michigan. Jour. Lepid. Soc., 20(1): 41–42.

RIOTTE, J. C. E., 1959. Revision of C. J. S. Bethune's list of the Butterflies of the eastern Provinces of Canada as far as northern Ontario is concerned. Ont. Field Biol., 13–59: 1–18.

1962. First additions to the northern Ontario list of butterflies. Jour. Lep. Soc., 16(4): 243–245.