

NOTES ON UNCOMMON MOTHS IN CENTRAL  
AND SOUTHERN ONTARIO

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For the past few years a program has been under way in the Department of Entomology of the Royal Ontario Museum to conduct a fairly intensive faunal survey of the larger Lepidoptera in southern and central Ontario. Thus far, our own field work involving Lepidoptera has been spread over several widely separated localities within this area: Sudbury, One Sided Lake (Rainy River District), Chaffey's Locks, Rondeau Provincial Park, Pelee Island and Algonquin Provincial Park.

Added to these materials have been several very significant collections from other parts of the Province: collections from S. Neebing Township, Thunder Bay District, by W. Hartley; from Dunnville and Crystal Lake near Mt. Irwin by W. Plath Sr. and W. Plath Jr.; from Severn Bridge by G. E. Scott.

Except for the bulk of the noctuids and geometrids, this material has now been identified. For the other groups our survey of the fauna of Ontario appears now to be largely complete. Not surprisingly, it includes a number of moth species for which these collections are the first records in Ontario, or in Canada. These are summarized here, along with range extensions and new locality records for several uncommon species previously known from Ontario.

## LIMACODIDAE

*Sisyrosea textula* (Herrich-Schaeffer) was known in Ontario only from a few specimens from St. Williams and Simcoe on the north shore of Lake Erie. It flies in July and was recently taken in Dunnville and Rondeau Park.

*Prolimacodes scapha* (Harris), known previously only from the southernmost part of the deciduous forest region, lying along the north shore of Lake Erie, was captured at Crystal Lake near Mt. Irwin (Peterborough Co.), about 60 miles north of Port Hope on the north shore of Lake Ontario, at the end of July.

*Packardia elegans* (Packard), also known in the past only from southernmost parts of the deciduous forest region was captured at Crystal Lake, too, in mid-June. This is a rather unexpected occurrence.

*Heterogenea shurtleffi* Packard was known in our region previously

only from Alcove, Qué. (specimens in the Canadian National Collection). It also occurs in Ontario at Chaffeys Locks where it was taken in some numbers in July 1963 and 1964.

#### PYROMORPHIDAE

*Harrisina americana* (Guérin) was known to fly around Point Pelee. During the last few years it has been found in Dunnville and in Rondeau Park where it is not uncommon. It occurs also on Pelee Island. Like the Euehromids (Syntomids) it flies both in the day and at night, visiting flowers, and coming to light sources.

#### COSSIDAE

*Prionoxystus macmurtrei* (Guérin), may be mentioned here, although we have many specimens of this species from Toronto in the collection of the Royal Ontario Museum. Additional specimens are known from Fort William, Macdiarmid, Chaffeys Locks, and Rondeau Park. The range given by Forbes (1923) is: New York to Minnesota; which corroborates what would otherwise seem to be "displaced" records from the country west of Lake Superior.

#### LACOSOMIDAE

*Lacosoma chiridotum* Grote, known in Ontario only from one male reared from a pupa found by the Forest Insect Survey in St. Williams, 1950 (specimen in the Canadian National Collection), was found in Rondeau Park in late June and early July.

*Cicinnus melsheimeri* (Harris), known from a few specimens taken between 1932 and 1957 in Ancaster, Chatham, Dunnville, London, Normandale and Port Colborne, was also found in Rondeau Park in late June and early July.

Both species of this family come readily to light sources. They fly mainly after midnight.

#### SATURNIIDAE

*Syssphinx* (*Sphingicampa*) *bicolor* (Harris), which was reported in a previous paper (Riotte, 1964), is known in Canada only from Brantford, Dunnville and Woodbridge, all in Ontario. Somewhat surprisingly, it was not found during our field work in Rondeau Park, and there is no specimen of it in the insect collection of the Rondeau Provincial Park Museum.

*Hyalophora* (*Callosamia*) *angulifera* (Walker), a tulip tree feeder, was taken for the first time in Canada in Rondeau Park, where tulip tree is common, on June 23, 1965.

## ZANOLIDAE

*Apatelodes torrefacta* (J. E. Smith), is now known from Dunnville, Grand Bend, Harrow, London, Normandale, Port Colborne, Queenston and Rondeau Park. There are, however, no records of this species east of the Niagara escarpment. It seems to be restricted to the north shore of Lake Erie. It flies from late June through late July.

*Apatelodes angelica* (Grote), in contrast, has a distribution including the Carolinian zone in Ontario along Lake Erie and along the north shore of Lake Ontario eastward to around Kingston. There are specimens from Dunnville, Grand Bend, Normandale, Rondeau Park, Simcoe, Queenston, Trenton, Belleville and Chaffey's Locks. It was found to be quite common in Chaffey's Locks where up to nine specimens in one season have been taken.

Both species come readily to light sources, *torrefacta* flying around 11 p.m., *angelica* in the early morning hours, during mid-June to end of July.

## LASIOCAMPIDAE

*Heteropacha rileyana* Harvey, is known in Ontario from only one specimen, caught in a light trap at the Entomology Laboratory in Chatham, on May 25, 1931. Although the collecting in Rondeau Park was begun in the midst of May, no specimens of this species were obtained. In recent years, however, the species was found to be common in southern Michigan (M. C. Nielsen, *in litt.*), about 110 miles southwest of Rondeau Park.

## NOTODONTIDAE

Most of the observations and additions to our knowledge have been made in this family.

*Clostera strigosa* (Grote), is distributed over the Province in an erratic pattern. It has now been taken, although in low numbers, in Algonquin Park, Black Sturgeon Lake, Chaffey's Locks, Dunnville, Geraldton, Grand Bend, Macdiarmid, Nakina, S. Neebing Township (Thunder Bay District), Nipigon, Ottawa, Port Elgin and Spragge.

*Clostera inclusa* (Hübner), the more southern member of the *albosigma* group, was previously known from Grand Bend, Leamington, Port Colborne, Port Franks, Turkey Point, and now a few specimens have been taken in Rondeau Park, May 22 to June 5, 1965. It probably has a second, at least partial, generation in Ontario, in late July.

*Clostera brucei* (Hy. Edwards), occurs in the northern part of central Ontario (Sudbury, Geraldton), in northern Ontario *s. str.* (Smoky Falls), and in western Ontario (One Sided Lake, Rainy River District).

*Datana angusii* Grote and Robinson, which in the *Forest Lepidoptera of Canada* (Prentice, 1962) is said to be "limited to the north shore of Lake Erie in southern Ontario; following closely the limits of the host trees" (shagbark hickory and butternut), was found almost commonly in Chaffeys Locks (Leeds Co.). It is known from Chaffeys Locks, Chatham, Crystal Lake near Mt. Irwin, Coldstream, Jordan, Marmora, Merivale, Ottawa, Port Colborne, Port Rowan, Rondeau Park, Simcoe, St. Davids, St. Williams, Toronto and Vittoria.

*Datana perspicua* Grote and Robinson, not only occurs in southern Ontario, as Forbes (1948) says, but is found in the southern part of central Ontario to Manitoulin Island and Muskoka District. It is known from Bracebridge, Brantford, Cape Croker, Cedar Springs, Chaffeys Locks, Grand Bend, Hamilton, Kingston, Manitoulin, Pinery Park, Ridgetown, Southampton, Square Bay and Westbrook.

*Datana drexelii* Hy. Edwards, has a similar, but more restricted distribution: Ancaster, Hamilton, Normandale, Port Colborne, Teeswater, Toronto, Vittoria, West Hill. Forbes (1948) states, "Canada."

*Gluphisia lintneri* (Grote), is much more widespread than previously thought, but is taken only rarely because of its very early flight period, at the end of April and beginning of May. It seems to occur in "pockets" up to northern Ontario *s. str.* It is known from Barrie, Black Sturgeon Lake, Marmora, S. Neebing Township (Thunder Bay District), Seven Bridge, Smoky Falls, Spragge, Westbrook. There is a substantial series in the Royal Ontario Museum from Severn Bridge.

*Dasylophia anguina* (J. E. Smith), is a western species which penetrates into western Ontario (west of the Nipigon River to the Manitoba border). Specimens are known from S. Neebing Township (Thunder Bay District) and One Sided Lake (Rainy River District).

*Dasylophia thyatiroides* (Walker), occurs in both forms, the typical and the melanic. The ranges of the two forms are practically identical. Most of our specimens have been taken in southern Ontario, and the species does not occur to the north of Algonquin Park (*Peridea* (*Peridea*) *basitriens* Walker has a similar distribution). *D. thyatiroides* has been taken in Algonquin Park, Chaffeys Locks, Coldstream, Dunnville, Grand Bend, Hamilton, London, Ottawa, Port Colborne, Ridgeway, Rondeau Park and Toronto.

*Hyparpax aurora* (J. E. Smith), until recently was known in Ontario only from a single specimen in the Canadian National Collection, from Grand Bend, collected on June 17, 1936. The species was taken in 1965 in Rondeau Park, July 11, giving evidence that it has at least a partial second generation.

*Schizura apicalis* (Grote and Robinson), was not known from Ontario until our survey. It is now known from a few specimens collected in areas scattered over the Province, except the far southern portion. It has been found at Burleigh Township (Peterborough Co.), Chaffey's Locks, One Sided Lake (Rainy River District) and Sudbury, where it was taken for the first time on July 29, 1960.

*Heterocampa subrotata* Harvey, is another of the species which was taken in Canada for the first time in 1965. It was found to be on Pelee Island where its foodplant, hackberry, is the most abundant tree. It may be expected to occur on the southernmost point of the mainland (Point Pelee) and wherever hackberry is found (around Belleville and St. Catharines, *e.g.*). A few years ago it was taken, in southern Michigan for the first time, in Lenawee County (M. C. Nielsen *in litt.*), about 70 miles west of Pelee Island.

*Macrurocampa marthesia manitobensis* McDunnough, occurs in Ontario in the vicinity of the Lake of the Woods, near the Manitoba border. It was first taken in Ontario by a collecting party from the Canada Department of Agriculture in 1960 and then by the author in 1962 at One Sided Lake (Rainy River District) and Rainy River. Forbes (1948) says, "solidly gray, without white, but with green splashes." The splashes are, however, orange-brown, and not green (which is also true of the types). The nominate subspecies, which is common over the southern part of the Province, usually shows, when fresh, "green splashes."

*Cerura* (*Cerura*) *multiscripta canadensis* McDunnough, is one of the rarest notodontids in Ontario. The locality records are scattered over the Province as follows: Barrie, Galt, Midhurst, Norway Point (Lake of Bays), One Sided Lake (Rainy River District), Ottawa, Sioux Lookout, Sudbury, Tomiko and the latest record, Crystal Lake near Mt. Irwin. It flies only for a brief period early in June.

#### LYMANTRIIDAE

*Orgyia* (*Hemerocampa*) *plagiata* (Walker), is sporadically found in southern Ontario, and is probably never very numerous. Males are known from Belleville, Chaffey's Locks, London, Ottawa and Trenton. In Chaffey's Locks a caterpillar with the characteristic yellow head and body was found on maple and developed into a female. Additional locality records from the Forest Insect Survey (Can. Dept. For.) are Chatham, Chatsworth, Dunnville, Hamilton, Hornings Mills, London, Newbury, Oakville, Oshawa, Petrolia, Port Stanley, Powassan, Ridgetown, St. Williams, Tillsonburg, Trenton.

## NOCTUIDAE

*Psychomorpha epimenis* (Drury), is found in Ontario on Pelee Island. It was not observed in Canada prior to our survey in 1965. The writer also took it as far north as Madison, Wisconsin, on April 29, 1963. The range, given by Forbes (1954) is eastern Massachusetts to Kansas and Missouri, south to Texas.

## ARCTIIDAE

*Phragmatobia lineata* Newman and Donahue. One of the paratypes of this recently described species (Donahue and Newman, 1966) was taken on July 9, 1965, in Rondeau Park. Another specimen is in the Park Museum (June 29, 1959), and a second paratype is in the collection of W. Plath, Sr., having been taken at Dunnville, July 20, 1958.

*Haploa clymene* (Brown), has been known from the Carolinian zone in Ontario for years, but is represented by only a few specimens in collections. Verification of its breeding status in the Province was needed. Adults were known from Dunnville, Hamilton, Hyde Park Corner and London. The Rondeau Park Museum had two specimens reared from caterpillars found in the Park on *Eupatorium* in 1959. One of the specimens is now in the collection of the Royal Ontario Museum.

*Haploa militaris* (Harris) and *Haploa fulvicosta* (Clemens), are the other two entities, of uncertain specific status, in this genus, which occur in Ontario only in Rondeau Park and on Pelee Island. They fly at the end of June and the beginning of July.

*Cisthene unifascia* Grote and Robinson, was represented by only three old specimens from London, Ontario, collected in 1886 and 1896. These specimens, most of which lack abdomens, are in the collections of the Ontario Agricultural College, University of Guelph, and the Royal Ontario Museum. Prior to 1963, when one fresh female was taken on July 13 in Chaffeys Locks, the old records seemed doubtful. Forbes (1960) does not mention *unifascia* at all but only *tenuifascia*. The four Ontario specimens, however, look rather similar to *unifascia*, and they had been so identified in both collections.

*Callarctia* (*Callarctia*) *quenselii gelida* (Moeschler), does not occur in central or southern Ontario. The unique specimen in the collection of the Royal Ontario Museum was taken at Cape Henrietta Maria on the Ontario tundra (Hudson Bay shore) by one of the previous field parties of the Royal Ontario Museum, July 7, 1948.

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#### A MIGRATION OF *VANESSA CARDUI* (NYMPHALIDAE) IN MONTANA AND WYOMING

The summer of 1965 saw unusually heavy flights of the Painted Lady, *Vanessa cardui* (Linnaeus), in Montana, Wyoming and adjacent areas. One could see the butterflies rapidly crossing the highway in western Nebraska and growing gradually more numerous to the west. At a vantage point in Scottsbluff National Monument I counted 70 individuals fly past in a half hour. Every individual netted was found to be worn and faded, evidently the result of many miles of flight. The flight direction was from due south to north. Across the sage covered wastes of central Wyoming we continued to see scattered individuals of *cardui* always flying in a constant south to north direction. Just south of Worland the heaviest flight in Wyoming that we witnessed was seen. Several hundred individuals flew past us in one group within a few minutes.

The next day, July 5th, we spent in the Tetons. Here *cardui* was the most abundant butterfly, and here perfect, fresh individuals were discovered amid the old, worn ones. On thistles in the park I found dozens of caterpillars amid the characteristic white webs, which had been produced in a short time by the migrants. The comparative ease with which I was able to net these fresh *cardui* in contrast with the wary migrants made me wonder if the freshly emerged individuals join in the flight of their parents or if they remain in the area in which they had developed.

We spent July 6th in Yellowstone National Park. No *cardui* were seen all that day, but the day was cloudy and almost no butterfly activity was observed. The next morning was clear and sunny and we noted a reappearance of *cardui* along the Madison River in Montana. They were