

THE COLEOPTERA OF CANADA.

BY H. F. WICKHAM, IOWA CITY, IOWA.

XXXII. SUPPLEMENTARY REMARKS TO EARLIER PAPERS.

The following notes relate in large part to additions recently made to the Canadian fauna through the activity of collectors in the Dominion. Several species which their possessors were unable to identify by means of the tables have been submitted to me, and, proving new to the Canadian lists, are incorporated in these pages, that students may have access to the descriptions. The families are taken up in the order of their treatment in the CANADIAN ENTOMOLOGIST.

COCCINELLIDAE.

In this family a great number of additions, comparatively speaking, have been made. Some of these are first recorded on Dr. Horn's memoir, entitled "Studies in Coccinellidae," published in Trans. Am. Ento. Soc., Vol. XXII. Among them may be noted *Smilia misella* and several species of *Scymnus*.

Smilia is substituted for *Pentilia*, hitherto employed in our lists; and the Canadian species, *S. misella*, Lec., is the smallest Coccinellid known from the region, measuring only .04 inch in length. It is shining black, not pubescent, convex, prothorax a little narrower than the elytra, smooth, sides not explanate. Elytra distinctly punctured, suture finely margined. Behind the front angles of the prothorax is an indistinct obliquely impressed line. Dr. Leconte states that it is sometimes abundant on flowers of *Thalictrum*. It is more than probable that *S. Marginata*, Lec., will also be found in Canada, in which case it may be recognized by the obliquely impressed thoracic line being distinct and the surface punctate. Both are about the size.

In the genus *Brachyacantha* I have received two species not hitherto recorded from Canada. Mr. John D. Evans sent a specimen of *B. 4-punctata*, Melsh., taken in Eastern Ontario. Without reference to the generic characters this insect would probably be placed in *Hyperaspis*, but the anterior tibiae have a spine on the outer margin. It is about the size of *B. ursina*, black, the tibiae and tarsi pale. Each elytron bears two round reddish or orange spots, one basal, one sub-apical; these spots being separated from the suture by a space about equal to their own diameters. The male has besides a narrow anterior thoracic marginal line and humeral elytral spot yellow. From Mr. R. J.

Crew I have *B. dentipes*, Fabr., captured at Toronto. It is larger than the foregoing, reaching sometimes a length of .22 inch or more. Colour black, legs wholly or in part pale, head either black with yellow frontal spot (♀), or yellow (♂); the thorax has the sides broadly marked with the latter colour. Elytra with a broad orange or yellow band slightly before the middle, extending from the outer margin nearly to the suture, while near the tip is a rounded spot of the same colour. The markings are variable in extent, but the above description applies to the Canadian form (see Fig. 27).



FIG. 27.

In my paper on Coccinellidae (number V. of this series) the genus *Scymnus* was not tabulated out, as the species were very poorly determined in collections, and Dr. Horn had just begun the study of them with a view to revision. A short time before the appearance of his paper (cited above) he kindly sent me a synopsis of the Canadian forms known at the moment, and this, with some changes and additions, I append below.

Most of the *Scymni* are broadly oval in outline and quite convex, giving them a nearly hemispherical appearance. A few are more elongate, and present a broken outline at the point of meeting between the prothorax and elytral humeri. All are pubescent. They are found by beating and sweeping during the warm months, while in spring and fall they may be captured on the under sides of stones or of pieces of wood in grassy spots.

Before attempting to trace the species through the use of a table, the student should familiarize himself with the structure called the metacoxal line. This is situated on the first ventral abdominal segment, appearing in most species as a fine raised line, describing a curve or arc behind the posterior coxal cavity, reaching from the inner border of the coxal to the neighbourhood of the outer anterior angle of the segment. It is very readily seen by means of any fairly good hand lens, but it is often necessary to move the hind leg on one side, so that the knee is directed straight backwards, otherwise the structure is obscured or covered up.

Perhaps the reference of *S. terminatus* to Canada may be open to doubt, but since the record is existent I have included in the table.

A. Metacoxal line not forming a complete arc, either joining the first ventral abdominal suture, or running parallel to it outwardly.

- b. Elytra with one or more yellowish spots.
 Form oval. Head black or yellowish, thorax black, sides and front margin sometimes yellowish, tibiae and tarsi always so. Elytra black, with an oval yellow spot on each, one-third from apex, equally distant from side and suture. .06—.08 in *flavifrons*, Melsh.
 Form elliptical. Blackish, each elytron with two obliquely oval yellowish spots, sometimes coalescent. Legs reddish. .08—.09 in *ornatus*, Lec.
- bb. Elytra not spotted, but with apex yellow, this colour extending one-fourth or one-fifth along the suture. General colour piceous, head, legs and thoracic margin yellow, abdomen usually so, two basal segments sometimes dark. .06—.075 in *terminatus*, Say.
- AA. Metacoxal line forming a complete arc, beginning at the inner edge of the hind coxal cavity, thence describing a curve and ending nearly at the anterior angle of the segment.
- c. Form broadly oval, outline of sides of thorax with humeri nearly continuous. Elytra never with discal spot, apex often yellow.
- d. Elytra pale at apex, sometimes narrowly so.
- e. Apical pale space of elytra about one-fifth the length of the suture. Head yellowish, thorax piceous, with a very wide yellow margin. Elytra black, except as stated; abdomen piceous, paler at sides and tip; legs reddish-yellow. .08 in *fraternus*, Lec.
- ee. Apical pale space narrow.
- f. Thorax partly black above.
 Colour black, sides of thorax yellowish, less broadly than in the next species. Elytra with narrow apical pale space, abdomen often indefinitely paler at sides and tip, legs pale, femora more or less piceous. First ventral of male with median smooth area surrounded by short pubescence. .08—.10 in *puncticollis*, Lec.

Resembling the preceding species, head and thorax yellow, the latter with median basal spot of variable size. Legs reddish yellow, femora not piceous. First ventral of male without median smooth space. .08--.09 in *collaris*, Melsh.

ff. Thorax entirely yellowish above, prosternum partly yellow. Head, tip and often also the sides of abdomen, with the legs, of the same colour, rest blackish.

.06--.09 in*cervicalis*, Melsh.

dd. Elytra entirely black. Thorax without yellow margin, tibiae and tarsi usually pale, femora more or less piceous.

Size moderate, metacoxal line at apex of curve nearly reaching the suture between first and second ventrals. .08--.10 in*lacustris*, Lec.

Size small, metacoxal line forming an arc, scarcely half as long as the first segment of abdomen.

.05--.06 in.....*punctum*, Lec.

cc. Form oblong oval, more than one-half longer than wide. Thorax narrower than elytra. Sides nearly straight, except near front angles, where they are arcuate. Black, each elytron with a small oval reddish spot near centre, sometimes wanting. Legs dark. .06 in.....*punctatus*, Melsh.

The name *haemorrhous* does not occur in the above table, since it is considered a synonym of *fraternus*. The spotted species, *ornatus*, *flavifrons* and *punctatus*, are quite rarely seen in collections.

Formerly the specimens of *Coccidula* from both sides of the continent were referred to *lepida*, Lec., as it was thought that the difference in colour was merely varietal in character. However, Dr. Horn has separated them as follows, both species being yellowish-red (or a bleached derivative) above, and piceous below, with the markings now described. The head is piceous, the legs yellowish.

Elytra with basal transverse piceous band, which joins at the humeri with a lateral stripe of the same colour reaching about two-thirds to apex. Suture with a blackish stripe connecting the basal band with a cordiform spot which is situated one-third from apex, .12 inch. This is

the Western form, found in Vancouver Island and British Columbia. It has the first two abdominal segments piceous, the rest yellowish, and is the species which I incorrectly called *lepida* in my paper (CAN. ENT., Vol. XXVI., p. 305)*occidentalis*, Horn. Elytra as in preceding, except that there is no sutural stripe connecting the basal band with the spot, which is transversely oval, not cordiform. The middle portions only of the first and second ventrals are piceous. Size of the other species. Found in the Eastern Provinces.....*lepida*, Lec.

ENDOMYCHIDAE.

Quite recently I have received from the Rev. Geo. W. Taylor, a number of specimens of *Aphorista, laeta*, Lec., a most beautiful insect of this family. He took them at his home near Nanaimo, Vancouver Island. It is more than likely that the insect will be found also on the mainland of British Columbia, and the following description will render it easy of recognition, since the form is unmistakable and closely resembles that of the other species of this and allied genera. It is .28 inch. long, yellowish-testaceous, antennae blackish, terminal joint more or less pale. The prothorax bears two small black



FIG. 28. spots, one on each side before the middle, and the elytra have a very large common blue spot which covers most of the surface, leaving only the humeri, side margins and apex pale. It is shown in Fig. 28.

Another nice species has been sent for determination by Mr. John D. Evans, who took it in Eastern Ontario. It is *Mycelina testacea*, Ziegl., a small, yellowish-testaceous beetle, of more elongate form than either *perpulchra* or *Hornii*. The antennae are piceous, but otherwise the colour is quite uniform—aside from a tendency of the sides of the prothorax to become a little paler than the disk. It is distinctly shining above, notwithstanding the covering of yellow pubescence. Length, .15 inch. Mr. Evans writes that he has only a single specimen, taken near Trenton in 1884.

The style of coloration (by lack of all pattern) is so different from that of *M. Hornii* and *M. perpulchra*, the previously-known northern forms, that the present species would not fall into the genus (nor any of the other genera) by the scheme which I used in the generic synopsis on

p. 338 of the CANADIAN ENTOMOLOGIST, Vol. XXVI. The fault may be corrected by changing the wording of the division "ccc" so that it may read "Thorax reddish or testaceous, elytra entirely testaceous or black, with two reddish spots on each."

CHRYSOMELIDAE.

Mr. R. J. Crew has collected, at Toronto, two species of *Zeugophora* not included in the Society's lists nor in my paper. Since these additions (*Z. Kirbyi* and *Z. scutellaris*) raise the total number of Canadian forms to five, it will be as well to reproduce in part the table recently published by Dr. Horn in Trans. Am. Ento. Soc., XIX., which runs thus:

A. Body, as seen from above, of one colour.

Pitchy black *abnormis*, Lec.

Entirely yellowish *Kirbyi*, Baly.

AA. Body above bicoloured.

b. Elytra entirely black. Head entirely yellow, punctures of elytra large and more distant than their diameters..... *scutellaris*, Suffr.

bb. Elytra parti-coloured.

Thorax entirely yellow, elytra with a cordiform discal space, the suture narrowly and the side margin yellow. outer half of antennae piceous, the elytral punctures very close *puberula*, Cr.

Thorax with a discal piceous area divided at middle by a yellow line, elytra with a common oval or cordiform spot and the apex pale. Antennae pale *varians*, Cr.

All the species are of nearly the same size, running from about .13 to .16 inch. in length. The name *Kirbyi* replaces *Reineckei* of the check-list. A figure of *Z. varians* is here given (Fig. 29), which will show the form of the genus.

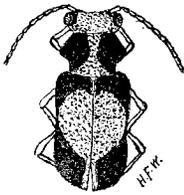


FIG. 29.