CANADIAN HYMENOPTERA—No. 4.

BY W. HAGUE HARRINGTON, F. R. S. C., OTTAWA.

My last paper dealt chiefly with Ottawa sawflies, and in the present article I venture to describe a few Western species which have been for some time in my collection, and which seem to be unnamed. Synoptic tables are added as an aid to collectors of these insects.

MONOPHADNUS ATRATUS, *n. sp.*

Male—Length, 6 mm.; black, polished; head wider than thorax, eyes prominent; antennæ short and stout, third joint nearly twice as long as fourth, four to nine sub-equal. Apex of femora and remainder of legs pale. Wings slightly infumated, marginal cross-nervure straight, received in third submarginal cell beyond the middle, second recurrent nervure received about one-fourth from base of same cell, an opaque dot in second.

Described from one specimen received from the Rev. G. W. Taylor, Victoria, Vancouver Island. Allied to *M. nigrellus*, Cress., but in that species the third and fourth joints of antennæ are about equal in length, and the marginal cross-nervure coincides with the apical nervure of third submarginal cell.

The following table may aid in separating some of the species of this genus, but the descriptions of many of the black forms do not give any characters sufficiently distinctive to make the determination of specimens satisfactory. Probably a critical comparison of the types would reduce the number.

MONOPHADNUS, Hartig.

1	(5)	Ochraceous or luteous.	
2	(3)	Head castaneous, also pleura and mesothorax...	<i>dilutus</i> , Cress.
3	(4)	Head black, mouth-parts pale.....	<i>marginicollis</i> , Nort.
4	(2)	Head black, mouth-parts and orbits pale.....	<i>Rileyi</i> , Cress.
5	(8)	Dull rufous or chestnut (and black).	
6	(7)	Segments of abdomen darker at apex.....	<i>inæquidens</i> , Nort.
7	(6)	Segments of abdomen with pale line at apex...	<i>lineatus</i> , Kirby.
8	(11)	Black, thorax partly rufous.	
9	(10)	Legs black.....	<i>bardus</i> , Say.
10	(9)	Legs white.....	<i>caryæ</i> , Nort.
11	(1)	Black, thorax black.	
12	(13)	Abdomen partly rufo-testaceous.....	<i>rubi</i> , Harris.
var. <i>hudsonicus</i> , Kirby.

- 13 (12) Abdomen black.
 14 (21) Tegulae and collar black.
 15 (16) Legs black. *scelestus*, Cress.
 16 (15) Legs partly white.
 17 (18) Third joint of antennae much longer than fourth. . . *atratus*, n. sp.
 18 (17) Third joint of antennae about equal to fourth.
 19 (20) Wings pale fuliginous, iridescent. *nigrellus*, Cress.
 20 (19) Wings hyaline, faintly clouded at base. ♀ *tiliae*, Nort.
 21 (14) Tegulae and collar pale.
 22 (27) Larger species, length about .25 inch.
 23 (24) Legs below trochanters reddish white, base of femora darker. *medius*, Nort.
 24 (25) Knees, anterior tibiae above, and base more or less of the two posterior pair white. *irrogatus*, Cress.
 25 (26) Knees, tibiae, except tips, and four anterior tarsi except apex, white. *atracornus*, MacG.
 26 (23) Knees, tibiae, except tips of posterior, and four anterior tarsi, white. ♂ *tiliae*, Nort.
 27 (22) Smaller species, length .18 inch; knees, tibiae and base of tarsi white. *parcus*, Cress.

TENTHREDO MELANOSOMA, n. sp.

Female—Length, 12 mm.; black, mouth-parts and anterior legs touched with white. Head large, front deeply channeled at each side of ocelli, and slightly roughened, face below antennae polished; antennae rather slender, third joint one-quarter longer than fourth (terminal five joints are wanting); clypeus emarginate, with a quadrangular white spot on each side, labrum, base of mandibles and palpi also white. Thorax opaque, without distinct punctuation; anterior legs with a line on apex of femora, a line on the tibiae, and the tarsi largely, yellowish-white; a yellowish-white line also on intermediate tibiae within; intermediate tarsi and apical joint of posterior piceous; wings hyaline, slightly infumated beyond middle; abdomen entirely black.

Described from one specimen received from Mr. Wickham, taken by him at Fort Wrangel, Alaska. It seems to be quite distinct from any of the described American species.

TENTHREDO NIGRISOMA, n. sp.

Female—Length, 13-14 mm.; black with pale legs; head very large, wider than thorax; frontal ridges well marked, antennæ slender; dot at inner summit of eye, clypeus, labrum and base of mandibles yellow, palpi rufo-testaceous or yellowish. Thorax opaque, roughened, especially the scutellum; a yellow spot above posterior coxæ; legs, except coxæ and dots on trochanters, entirely rufous in one specimen, and much paler in the other which has the anterior pair, the middle femora and the posterior tibiæ almost yellow; wings yellowish-hyaline, stigma and nervures black, except basal half of costa, which is rufous. Abdomen wide, flattened, shining, entirely black.

Described from two specimens from Victoria, V. I., received from Mr. Taylor (dated 5th June, 1888) and Mr. Wickham. Closely allied to *T. nigricostata*, Prov., of which the type is in my possession, but is larger, the sculpture of the scutellum is coarser, the clypeus and labrum are yellow, the costa is in part rufous, and the posterior tarsi are unicolorous with legs.

TENTHREDO RUFICOLLIS, n. sp.

Female—Length, 13 mm.; black, with red legs. Head not nearly so large as in preceding species, and the frontal grooves very shallow; antennæ rather short and stout; clypeus, labrum and mandibles yellow, palpi testaceous. Thorax uniformly, not coarsely, roughened; tegulæ and a large quadrangular spot on collar bright rufous; legs, except coxæ, rufous, the anterior pair a little paler; wings hyaline, nervures piceous, stigma and costa paler. Abdomen long, narrow, shining, entirely black.

Described from one specimen received (through Mr. Fletcher) from Mr. Bean and captured at Laggan, in the Rocky Mts., B. C.

The described American species of *Tenthredo* are now so numerous (over eighty) that it necessitates a great deal of labour to go over all the descriptions. The males in some groups, such as *signata*, etc., are so variable and resemble each other so greatly that they cannot in many instances be satisfactorily separated by the present descriptions. The three species which I have described have the abdomen entirely black, and to assist in determining them I have prepared the following table of the species having the abdomen black, and which seem to be twenty-one in number. A table of the remaining species would be very desirable.

TENTHREDO, Linn. (species with black abdomen)

- 1 (6) Antennæ black with apical joints white.
- 2 (5) Four anterior tibiæ and tarsi testaceous.
- 3 (4) Collar yellow..... *antennata*, Kirby.
- 4 (3) Collar black..... *nigricollis*, Kirby.
- 5 (2) Four anterior tibiæ and tarsi black and white.... *grandis*, Nort.
- 6 (1) Antennæ wholly black.
- 7 (8) Wings violaceous, paler at apex..... *nimbipennis*, Nort.
- 8 (9) Wings fuliginous, darker at apex..... *fumipennis*, Nort.
- 9 (7) Wings hyaline or subhyaline.
- 10 (18) Legs black, varied with white or yellow
- 11 (12) Head above antennæ more or less yellow..... *lobata*, Nort.
- 12 (11) Head above antennæ black.
- 13 (16) Posterior tibiæ black.
- 14 (15) Tegulæ and edges of collar straw-white... *flavomarginis*, Nort.
- 15 (14) Tegulæ and collar black..... *melanosoma*, n. sp.
- 16 (17) Posterior tibiæ with white annulus, wings hyaline. *decorata*, Prov.
- 17 (13) Posterior tibiæ yellow except tip, wings yellow-
ish hyaline..... *cinctitibiis*, Nort.
- 18 (10) Legs rufous, varied more or less with black or yellow.
- 19 (20) Pectus rufous..... *rufopectus*, Nort.
- 20 (19) Pectus black.
- 21 (22) Coxæ red..... *rufipes*, Say.
- 22 (23) Coxæ waxen yellow..... *zetes*, Kirby.
- 23 (21) Coxæ black, in whole or in part.
- 24 (25) Scutellum yellow..... *cogitans*, Prov.
- 25 (24) Scutellum black.
- 26 (35) Labrum and clypeus (in part) yellow.
- 27 (28) Femora black, except tip of anterior..... *concessa*, Nort.
- 28 (29) Femora black at base only..... *atrocærulea*, Prov.
- 29 (27) Femora largely red or testaceous.
- 30 (31) Posterior legs black, except apical joint of
tarsi..... *uniformis*, Kirby.
- 31 (32) Posterior tarsi and tip of tibiæ black or
piceous..... *erythromera*, Prov.
- 32 (30) Legs rufous, except coxæ.
- 33 (34) Tegulæ and collar black..... *nigrisoma*, n. sp.
- 34 (33) Tegulæ and edges of collar rufous..... *ruficollis*, n. sp.
- 35 (26) Labrum and clypeus black..... *nigricostata*, Prov.