another in front of middle coxæ, posterior part of mesosternum; metathorax with a transverse row of 5 spots across the anterior part and 3 across the posterior part; abdomen with first segment to spiracles and a short line in centre beyond, broad band at base of second and third segments, narrower band at base of succeeding segments and entire venter. Antennæ wanting. Legs honey-yellow, except 4 anterior coxæ beneath, which are whitish, joints 3, 4 and 5 of middle tarsi, which are dusky, and apical third of posterior tibiæ and basal fourth of first tarsal joint, which are black. Wings hyaline, somewhat infumated around the apical margin; areolet wanting. Entire thorax punctured, metanotum rugose. Abdomen somewhat clavate, smooth and polished.

Owing to the short ovipositor and shape of abdomen, this species will probably belong to a new genus, and is only temporarily placed here.

Described from 1 specimen taken at Jamesburg, New Jersey, by Mr. Chas. W. Johnson, to whom I take pleasure in dedicating this species, as a slight token of thanks for the many valuable specimens of Ichneumonidæ sent me.

NEW SPECIES OF TENTHREDINIDÆ, WITH TABLES OF THE SPECIES OF STRONGYLOGASTER AND MONECTENUS.

BY ALEX. D. MACGILLIVRAY, ITHACA, N. Y.

The following descriptions are offered, preparatory to publishing a list of the saw-flies of the Upper Cayuga Lake Fauna. The types are in the Entomological Collection of Cornell University.

CALIROA, Costa.

Caliroa Nortonia, n. sp. Body entirely black, head finely, densely punctate, clypeus emarginate, antennæ black, broad, of the same width throughout, third segment one-third longer than fourth, fourth and fifth subequal in length, sinus each side of the ocelli reaching the back of the head, from each side of the lateral sinuses there is another sinus starts off behind the posterior ocelli, crossing back of the median ocellus and running down each side of this ocellus for a short distance, where it becomes obsolete; tegulæ and collar very narrowly dull white, thorax and abdomen glossy black; legs white, coxæ, trochanters, basal half anterior and basal two-thirds of middle and posterior femora black,

posterior tibia with a band at apex, and posterior tarsus except base of metatarsus, brown; wings hyaline, veins and stigma black, costa at immediate base white, first submarginal cross-vein distinct. Length, 7 mm.

Habitat—McLean, N. Y. 1 ♂ 30th May, 1890.

This species is readily separated from *obsoleta* by the crossing sinus on the front, the colour of the femora, and the larger size. The species is dedicated to Mr. Edward Norton, the well-known student of American Tenthredinidæ.

STRONGYLOGASTER, Dahlb.

1. Lanceolate cell with a cross-line..... 2.
- Lanceolate without a cross-line..... 15.
2. Under wings with incomplete outer cells; if complete, no cross-vein in cell in front of lanceolate cell..... 3.
- Under wings with complete outer cells, and with a cross-vein in cell in front of lanceolate cell *pinguis*, Nort.
3. Antennæ in part pale..... 4.
- Antennæ wholly black..... 9.
4. Antennæ pale at apex 5.
- Antennæ pale at base *epicera*, Say.
5. Head testaceous..... 6.
- Head black..... 7.
6. Median lobe of mesothorax black, margined with white *mellosus*, Say.
- Median lobe of mesothorax rufous..... *terminalis*, Say.
7. Eyes margined before and behind with black..... *apicalis*, Say.
- Eyes margined with white or rufous in part..... 8.
8. Eyes margined before and behind with white... *pallidicornis*, Nort.
- Eyes margined behind with rufous, black in front... *rufoculus*, n. sp.
9. Lanceolate cell of posterior wings not attaining the margin, an appendiculate vein at apex..... *abnormis*, Prov.
- Lanceolate cell attaining the margin, not with an appendiculate vein at apex..... 10.
10. Eyes partly margined with white *fidus*, Cress.
- Eyes wholly margined with black..... 11.
11. All the coxæ and trochanters white..... 12.
- Some of the coxæ and trochanters black or in part black..... 13.
12. Scutellum black..... *pallicoxus*, Prov.
- Scutellum white..... *proximus*, Prov.

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13. Abdomen entirely black..... *rubripes*, Cress.
 Abdomen transversely banded above with rufous or yellow... 14.
14. All the femora rufous..... *rufocinctus*, Nort.
 The femora in part black..... *tibialis*, Cress.
15. Antennæ pale at base..... *rufescens*, Nort.
 Antennæ entirely black..... 16.
16. Thorax reddish-yellow..... *unicus*, Nort.
 Thorax black..... 17.
17. Abdomen wholly rufous..... *tacitus*, Say.
 Abdomen in part black..... 18.
18. Abdominal segments two to four wholly pale..... 19.
 Abdominal segments two to four in part black..... 24.
19. Coxæ wholly pale..... 20.
 Coxæ entirely or in part black..... 21.
20. Scutellum black..... *pallicoxus*, Prov.
 Scutellum white..... *proximus*, Prov.
21. Basal abdominal segment wholly black..... 22.
 Basal abdominal segment not wholly black..... 23.
22. Femora black at base..... *annulosus*, Nort.
 Femora rufous..... *luctuosus*, Prov.
23. Coxæ wholly black..... *impressatus*, Prov.
 Coxæ waxen-yellow at apex..... *longulus*, Nort.
24. Abdominal segments yellow at base and black at apex
 multicinctus, Nort.
 Abdominal segments black at base and yellow at apex, or with
 only the two basal segments black..... 25.
25. Coxæ wholly rufous..... *soriculatus*, Prov.
 Coxæ in part black..... 26.
26. Abdomen with the two basal segments black..... 27.
 Abdomen with the two basal segments not wholly black..... 28.
27. Legs waxen-yellow..... *longulus*, Nort.
 Femora in part black at base; female with a whorl of hairs at
 apex..... *pacificus*, MacG.
28. Abdominal segments finely margined with white..... *politus*, Prov.
 Abdominal segments with the apical half testaceous or reddish-
 yellow..... 29.
29. Coxæ wholly black..... *annulosus*, Nort.
 Coxæ pale at apex..... *distans*, Nort.

Strongylogaster rufoculus, n. sp. Head black, clypeus and labrum white, labrum broadly rounded, a prominent rufous spot behind each eye, antennæ black, segments six to nine white, the third segment one-third longer than the fifth, sinus at side of ocelli not reaching the back of the head; thorax black, the tegulæ rufous; apex of the abdominal segments slightly darker, basal plates black; legs rufous, coxæ black, posterior coxæ slightly marked with yellow, anterior and middle trochanters black, posterior yellow, femora and tibiæ rufous, posterior femora slightly marked with black at apex, tarsi yellow; wings slightly yellowish, veins brown, costa at base of stigma yellow, apex of stigma brown, lanceolate cell with an oblique cross-nervure, posterior wings with two middle cells, outer cells incomplete. Length, 11 mm.

Habitat—Ithaca, N. Y. 3 ♀ ♀, June 5-10, 1890.

Strongylogaster primitivus, MacG., should more properly be referred to *Tenthredopsis*, having the cross-vein of the lanceolate cell perpendicular or wanting, and the third and fourth segments of the antennæ equal.

BIVENA,* gen. nov.

Wings with three marginal and four submarginal cells, the first marginal cell receiving the two anterior submarginal cross-veins and the second the third, the second and third submarginal cells each receiving a recurrent nervure, lanceolate cell open at the shoulder, subcontracted at middle with a cross-vein near the apex, subcosta wanting, posterior wings with two middle cells, the cross-vein closing the apex of the anterior one runs to the margin of the wing at about one-third the width of the cell, thence follows around the margin of the wing to the vein forming the posterior side of the cell; antennæ nine-jointed, filiform, reaching to about the base of the abdomen, the segments all of the same width, head as wide as the thorax, very slightly dilated behind the eyes; abdomen about as long as the head and thorax, somewhat widened at middle, ovipositor stout, of the usual type of Macrophya. Type, *Bivena maria*, sp. nov.

A very interesting genus, belonging to the subfamily Tenthredinæ. Easily separated from both the Lydiinæ and Xyliinæ by the absence of subcosta, from the former by the nine-jointed antennæ and from the latter in not having the ovipositor greatly exserted and the basal segments of the antennæ dilated.

*Bis, twice; vena, vein.

Bivena maria, sp. nov. Head black, with white on the anterior orbits, beneath the eyes, around the immediate base of the antennæ, a quadrangular spot between the antennæ, the clypeus, and the labrum; antennæ brownish-yellow, the third segment slightly longer than fourth, fourth and fifth subequal, clypeus truncate, sinus each side of the ocelli, reaching the posterior part of the head; the tegulæ, collar narrowly, the scutellum, cenchri, and apex of the basal plates, yellow; abdomen rufous, the basal half of the first segment and three apical segments, including the ovipositor sheath, black; legs yellow, the anterior and middle coxæ slightly at base, the posterior above and below, and the posterior tibia at apex, black; wings hyaline, veins brown, including the costa, stigma black, lighter at apex and behind. Length, 8 mm.

Habitat—West Danby, N. Y. 1 ♀, 31 May, 1890.

MONECTENUS, Dahlb.

1. Wings smoky; scutellum black; antennæ with thirteen segments
..... *fulvus*, Nort.
Wings hyaline; antennæ with more than thirteen segments.... 2.
2. Lateral fulvous line of abdomen interrupted on the three or
four basal segments; antennæ fifteen-jointed.... *suffusus*, Cress.
Lateral fulvous line continuous from the base of the abdomen... 3.
3. Antennæ fourteen-jointed..... *melliceus*, Cress.
Antennæ sixteen-jointed..... *juniperinus*, n. sp.

Monectenus juniperinus, n. sp. Fulvous, with the following parts black: mandibles, antennæ, a lunate mark, including the ocelli, its horns reaching the antennæ; a broad dash on the lateral lobes, the scutellum, in some cases only its apex, metathorax, basal plates, tergum and venter except a lateral line, pectus, pleuræ except a dark fulvous spot, coxæ at base, and tarsi at apex; antennæ decidedly serrate beneath, with sixteen distinct segments; clypeus emarginate; wings hyaline, veins brown, caudal half of cross-vein between first and second submarginal cells hyaline, stigma brown, clearer at middle. Length, 8 mm.

Habitat—Ithaca, N. Y. Collected by Mr. R. L. Junghanns, a student in the Entomological Department of Cornell University. Described from four females, collected on Red Cedar (*Juniperus virginiana*).

Mailed November 3rd.