

NOTE—The only western male of *communis* in the Canadian National Collection is from Aweme, Man. (Criddle) and has the surface of segment 7 as in *occidentalis*. This suggests a possible gradation between the two forms.

RUFIA GROUP.

9. *Tibiae bearing long erect black hair*, those on hind tibiae almost as long as tibial spurs; angles on margin of clypeus more pointed than in *acadica*; tarsi somewhat larger and thicker, especially those of the fore legs; black on abdomen never extensive enough to enclose yellow spots except on segment 1, segment 2 with a narrow black basal band widened in centre and then spreading sideways.

female 2075, *austriaca* Pz.

Ottawa, Chelsea, Que., mid-June; Winnipeg, mid-July; Kaslo, B.C., mid-July. This species is parasitic in nests of *V. rufa* L. in Europe. Only males and females are known.

Tibiae practically destitute of long erect black hair, but sometimes a few short sub-decumbent black hairs on basal part of the joint.....10

10. *Smaller* (female length 14 mm., male length about 12 mm.) *Darker*. Clypeus flattened, anterior angles not specially prominent, *clypeus bearing a longitudinal black line* extending from near apex to base, widened apically. Lateral yellow stripe on prothorax narrow, parallel sided. Segments 2 to 5 each typically with a broad black band which in the female contains a small yellow spot near the apical margin on either side. These spots occasionally reddish or absent. On segments 3 to 5 the black band is widened to receive the spots which may not be completely enclosed at the sides. In the neuter, spots are present rarely on second segment only, and these are reddish, and second ventral segment occasionally has a red lateral spot. Hair denser and longer especially on

clypeus and segment 1, which is only slightly narrower than segment 2. Stipes dark, the apical portion narrower and more membranous.

male 4012, female 2072 *acadica* n. sp.

Nova Scotia, (not rare); Painsec, N.B.; Ottawa; Kaslo, B.C.; Victoria, B.C. Near to *vidua* and the European species *rufa*. Makes aerial nest.

Larger (female 17 mm., male length 14 mm.)

Clypeus more convex. Anterior angles more prominent. *Clypeus with only 3 small black spots* near apex. *Yellow areas on prothorax and abdomen wider*. Hair, especially on clypeus and basal segment, more scanty and shorter. Segments 3 to 5 each have narrower basal black bands which in the female and neuter are angularly produced backwards in centre, with a line or black spot on either side, which on segment 2 or 3 is usually enlarged and fused into the angular production.....11

11. Segment 2 with a broad black band covering about eight-ninths of the segment in the middle. Yellow markings on thorax slightly paler than those on abdomen (? effect of cyanide). Prothorax stripe parallel sided. Stipes testaceous, the apical appendage wider and less membranous.

male 2076, female 2073, *vidua* Sauss.

Female, Port Rowan and Simcoe, Ont. (G. S. Spencer); neuter, Chatham, Ont. (F. W. L. S.); male, Toronto.

Segment 2 with the black area only slightly more extensive than on segment 3. Tint of yellow uniform. Prothoracic stripe subtriangular, nearly as wide as long in female.

female 4013, neuter 4014, *atropilosa* n. sp.

One female Lethbridge, Alta. (F. W. L. S.); many workers, Vernon, B.C.; Keremeos, B.C.; Okanagan Landing, B.C. (F. W. L. S.)

