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Sir John Lubbock has also discovered in the front tibiae of *Formica flava* an arrange-  
ment of the tracheal tubes in a somewhat similar way, which may also serve as a hearing  
apparatus. A similar organ is seen in the front tibiae of *Gryllus*, and is thought by some  
European naturalists of eminence to be for this purpose.

Ants possess a stridulating apparatus on the upper surface of the fourth abdominal  
segment, which is finely ribbed, and when rubbed, gives out a sound. We see, then, that  
they are provided with what are presumably organs of hearing, and also with the means  
of emitting sound, so that although Huber, Forel, and others, state that ants are quite  
deaf, their perceptions of sound may really be far more delicate than ours, but ending  
where ours begin.

Their sense of smell is well developed. Their behaviour, when tested with various  
scents, from assafœtida to lavender water, proved conclusively that this was the case. And  
it seems to be the principal means of finding their way, more serviceable even than sight,  
being in fact the keenest and most useful of their senses.

#### CANADIAN SPECIES.

The ants of Canada have not been much studied. The following list comprises all  
the species catalogued up to the present, but, no doubt, it could be much enlarged, as the  
United States possesses about 200 species. Only two genera have so far been found in  
Canada.

##### Genus *Formica*, (Linn.)

Peduncle of abdomen with one knot.

Discoidal cellule not closed.

- Black, feet and thorax partly red..... *herculeana*.
- Entirely black..... *Pennsylvanica*.
- Brown or black, feet pale..... *pallitarsis*.
- Entirely yellow..... *mellea*.

First discoidal cell closed.

- Black, feet red..... *fusca*.

Reddish or yellowish.

- Yellow or yellowish red, abdomen black..... *rufa*.
- All brownish or reddish yellow..... *flava*.

##### Genus *Myrmica*, (Latreille).

Peduncle of abdomen with two knots.

- Bright red and black..... *incompleta*.
- Pale red and black..... *tuberosum*.
- Pale yellow, size small..... *molesta*.

*F. herculeana*, (Linn), *ligniperda*, (Latr).

This, the largest of our ants, is black, with the feet and thorax partly red. It lives  
in decaying trees or wood, where it forms numerous galleries. An example of its  
destructive powers is given by Mr. E. Baynes Reed, in the Annual Report for 1883,  
page 38. Found also in Europe. *F. Pennsylvania*, (DeGeer). A somewhat smaller spe-  
cies than the former, but having similar habits. *F. pallitarsis*, (Provancher). A very  
small insect, only  $\frac{3}{16}$  of an inch long, black, with pale feet. The Abbé Provancher  
does not mention its habits.

*F. Mellea* (Provancher).  $\frac{1}{16}$  inch long, and of a uniform pale yellow colour. Lives  
under stones.

*F. fusca*, (Linn). A well-known species, found also in Europe. It generally makes its  
nests under stones, in sheltered places. Very common on Montreal Mountain.



Fig. 23.

*F. rufa*, (Linn). A yellowish red species, common also in  
Europe. Fig. 23 represents the female of this species. It forms  
its nests in the earth, covering them with the soil it carries out  
of its galleries, mixed with bits of wood and other rubbish, so  
as sometimes to raise considerable mounds. Figure 24 repre-  
sents one of their nests. In Europe it is called the Wood Ant,  
its nest being generally found in woods.

Post 10  
Species, known  
to occur  
in  
Canada  
pp.  
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