

AN ANNOTATED LIST OF THE ANTS OF BRITISH COLUMBIA

By E. R. BUCKELL

The present list is intended as a foundation on which to build up a list of the Ants of British Columbia.

The writer is indebted to Prof. W. M. Wheeler for the identification of material.

Family **FORMICIDAE**

Sub-family **Myrmicinae**

Genus **Solenopsis** Fabricius

Solenopsis molesta Say.

Nests under stones. A small ant, with queens large in comparison to the small monomorphic workers. A common species in British Columbia.

Genus **Pheidole** Westwood

Pheidole oregonica Emery.

A nest of these ants was found under a stone at Osoyoos, in the spring of 1925. Besides the queens and the minute workers there were a few individuals with enormously enlarged heads and jaws. These probably acted as soldiers and also crushed up the plant seeds on which this ant feeds to a large extent.

Genus **Stenamma** Westwood

Stenamma nearcticum Mayr.

Recorded from British Columbia by Prof. W. M. Wheeler in his "List of Described North American Ants."

Genus **Aphaenogaster** Mayr.

Aphaenogaster subterranea Latr. subsp. **occidentalis** Emery.

A sluggish ant, nesting under stones, and in all conditions of soil, from moist meadows to dry sage-brush land. It has been observed to carry its larvae and pupae to the surface of the soil on hot days. A reddish brown ant 5 to 6 mm. long.

Genus **Pogonomyrmex** Mayr.

Pogonomyrmex occidentalis Cresson.

This interesting harvester ant occurs only in the warmest and driest locations in the southern end of the Okanagan Valley from the boundary line to Penticton. Its typical nests (low mounds of pebbles around which a considerable area is kept entirely free from all vegetation) occur only as far north as Oliver. North of this point, only very

weak colonies will be found under stones; and when Penticton is reached the colonies consist of a few individuals living in a single small hole in the soil. This ant is peculiar to the great plains region of the United States, from Montana to Texas, New Mexico and Arizona. In these States it is seldom found below 5000 ft. elevation and flourishes best between 6000 and 8000 feet. Its nests are large; from 3 to 6 yards in diameter. In British Columbia the largest nests have a diameter of about 1 yard. No nests will be found in the Okanagan above 1500 feet elevation. It is a pugnacious ant, and its sting is remarkably severe, and the fiery, numbing pain which it produces may last for hours. Stores of grass seed and the seeds of *Lewisia rediviva* Pursh. were found in the nests of these ants at Osoyoos. It is a pale red ant 6 mm. in length.

Genus **Myrmica** Latreille

Myrmica mutica Emery.

The Canadian National collection contains specimens from Dog Lake near Penticton, collected by the late Dr. C. G. Hewitt and determined by Prof. W. M. Wheeler.

Myrmica rubra Linnaeus. subsp. **brevinodis** Emery. var. **frigida** Forel.

Recorded from British Columbia by Prof. W. M. Wheeler.

Myrmica rubra Linnaeus subsp. **brevinodis** Emery var. **whymperi** Forel.

Recorded from British Columbia by Prof. W. M. Wheeler.

Myrmica rubra Linnaeus. subsp. **brevinodis** Emery. var. **glacialis** Forel.

Recorded from British Columbia by Prof. W. M. Wheeler.

Sub-family **Dolichoderinae**

Genus **Tapinoma** Forster

Tapinoma sessile Say.

A small dark-brown ant without the characteristic pedicel between the thorax and abdomen. Length 2.5 to 3 mm. When disturbed, this ant runs about with its abdomen raised and emits a strong odor of rancid cocoanuts, known as the "Tapinoma odor." It is a very common ant, nesting under stones, logs, and even small pieces of wood.

Sub-family **Camponotinae**

Genus **Lasius** Fabricius

Lasius niger Linnaeus var. **sitkaënsis** Pergande.

This is a small dark-brown ant about 2 mm. in length. The small earth craters made by these ants in excavating their nests beneath the soil are common objects on garden paths and on dry sandy soils. This is a destructive garden ant, which is said to hoard the eggs of the corn-root louse (*Aphis maidiradicis*) in its nest over winter and to distribute the newly-hatched young along the roots of the maize in the spring.

Lasius umbratus Nyl. n. subsp. Wheeler.

This is a rather sluggish, bright yellow ant; 4 to 5 mm. in length. It nests in moist locations under stones. It appears to be fairly common in the province.

Genus ***Formica*** Linnaeus***Formica sanguinea*** Latreille. subsp. ***subintegra*** Emery.

This is a medium-sized ant with head, thorax and legs reddish yellow and the abdomen brown. Length 5 to 6 mm. It is a slave-making species extending over the whole north temperate portion of the globe. When molested they fiercely attack the intruder, rushing at him with open mandibles. These ants raid the nests of other ants and steal the pupae and larvae, which they rear as slaves in their own nests. Nests of this species have been found at Oliver and Vaseaux Lake. In each case they were observed to be raiding a nearby nest of ***Formica fusca*** Linnaeus. var. ***argentata*** Wheeler.

Formica rufa Linnaeus subsp. ***obscuripes*** Forel.

This is one of the commonest of the British Columbia ants, and its large mound nest made of pieces of stick, pine needles, etc., are common objects, and well known to everyone. The head, thorax, and legs are reddish, and the abdomen is dark brown. The large mound nests of this ant are often particularly common under cottonwood trees, and the ants will be seen in thousands climbing the trees to get at the honey dew secreted by the aphid on the poplar leaves. At high elevations the colonies will be small and often located under stones instead of in mounds. When disturbed these ants rush wildly and fiercely about, and, throwing back their heads, sit up with the tip of their gasters directed forward and discharge volleys of formic acid in the direction whence they are threatened.

Formica rufa Linnaeus. subsp. ***aggerans*** Wheeler.

The Canadian National collection contains specimens from Dog Lake, near Penticton, collected by the late Dr. C. G. Hewitt, and determined by Prof. W. M. Wheeler.

Formica truncicola Nyl. subsp. ***integra*** Nyl.

The Canadian National collection contains specimens from Nicola, collected by the late Dr. C. G. Hewitt and determined by Prof. W. M. Wheeler.

Formica fusca Linnaeus. var. ***argentata*** Wheeler.

This is an extremely active, shiny black ant with rather long legs; about 5 mm. in length. It has been found nesting in rather small colonies under stones or in a hole excavated at the base of a grass plant. It does not appear to be very common.

Formica fusca Linnaeus var. **gelida** Wheeler.

In this ant the head and thorax are red, while the abdomen is black. It is 5 to 6 mm. in length. It nests under stones and is a rather sluggish ant.

Formica fusca Linnaeus var. **neodara** Emery.

The Canadian National collection contains specimens from Chilliwack, collected by the late Dr. C. G. Hewitt and determined by Prof. W. M. Wheeler.

Formica fusca Linnaeus var. **neurufibarbis** Emery.

The Canadian National collection contains specimens from Kelowna and Kaslo, collected by the late Dr. C. G. Hewitt and determined by Prof. W. M. Wheeler.

Formica fusca Linnaeus subsp. **pruinosa** Wheeler.

In this ant the antennae, thorax and legs are dark reddish brown, and the abdomen black. It is 3 to 4 mm. in length. This species nests under stones and has also been taken in association with an earth mound.

Formica subpolita Mayr. var. **camponoticeps** Wheeler.

This ant has two sizes of workers. It is a crater ant, making fair-sized, craters in sandy or silt soils. In a gravelly or wet soil it will live under stones. This ant was found to be doing considerable damage to young celery plants at Malakwa in 1924 by tunnelling around the roots and attending some aphids which were on the roots. This so loosened the soil about the roots that the young plants dried up and died. The head, thorax, and legs are red and the abdomen black.

Formica subpolita Mayr. var. **neogagates** Emery.

This is a small black ant with antennae and legs lighter in colouration. It is found commonly nesting under stones.

Formica whymperi Forel.

The Canadian National collection contains specimens from Emerald Lake, collected by Prof. W. M. Wheeler.

Formica hewitti Wheeler.

The Canadian National collection contains cotypes of this species, collected at Emerald Lake by the late Dr. C. G. Hewitt and named by Prof. W. M. Wheeler.

Genus **Camponotus** Mayr.**Camponotus levigatus** F. Smith.

This is a large jet black wood-boring species. It is not very common, and is usually taken boring in fir logs at high elevations.

Camponotus maculatus Fabricius subsp. **vicinus** Mayr.

This is a large species with red thorax and legs and black head and abdomen. It is said to occur on every continent and on many islands and is very variable. There are three sizes of workers. This ant is very common under stones in forests, but does not seem to bore in timber as much as the two other species (**C. levigatus** and **herculeanus**).

Camponotus herculeanus Linnaeus var. **modoc** Wheeler.

This species bores in rotten logs and also in dry standing timber, usually at high elevations. It is a large ant, averaging 10 mm. in length; black, with a coating of long golden hairs on its abdomen.

Camponotus herculeanus Linnaeus var. **whymperi** Forel.

The Canadian National collection contains specimens from Arrowhead, collected by the late Dr. C. G. Hewitt and determined by Prof. W. M. Wheeler.