

TABLE I

Ant species collected in areas adjacent to the tree-line in northern Québec (forest tundra) and Churchill, Manitoba (A, forest tundra; B, shrub tundra)<sup>1</sup>

Species	Localities					
	Québec				Manitoba	
	Fort-Chimo (58°60'N - 68°24'W)	Rivière-à-l'Eau-Claire (56°13'N - 76°01'W)	Lac Guillaume-Delisle (56°15'N - 76°17'W)	Poste-de-la-Baleine (55°17'N - 77°45'W)	Churchill (58°47'N - 94°11'W)	
				A	B	
<i>Myrmica alaskensis</i> . . . . .	1			7	3	
<i>Leptothorax acervorum</i> . . . . .	2	1	7	1		5
<i>Leptothorax muscorum</i> . . . . .	7		6	6	4	1
<i>Camponotus herculeanus</i> . . . . .	1	1	2	2	9	1
<i>Formica neorufibarbis</i> . . . . .	7	1	1	21	5	3
<i>Formica subnuda</i> . . . . .				7		

<sup>1</sup> The data from Churchill were published by Gregg in 1972. Figures indicate the total numbers of different (mostly colonies) samples available.

### *Myrmica alaskensis* Wheeler

This *Myrmica*, previously called *kuschei* Wheeler (Creighton, 1950), was found nesting in organic and mineral soil within a small hummock of *Polytrichum* sp. or in dead wood, such as decaying stumps covered by mosses. Larvae, prepupae and pupae were abundant. Colonies usually occupy microhabitats which retain a minimum of humidity during the short growing season. Habitats: Wet hollow with shrubs, shrubby thickets (with *Betula glandulosa* Michx., *Ledum groenlandicum* Oeder, lichens and mosses), old logged open forest with spruce and tamarack. That ant was recorded in similar situations at Churchill, Manitoba, under the name *M. brevinodis* by Gregg (1972) (specimens examined). It occurs throughout the boreal coniferous forest from Alaska to Labrador (unpublished data).

### *Leptothorax acervorum* (Fabricius)

The occurrence of this species in Québec is recorded here for the first time and represents an addition to the list published by Francoeur (1977). Discovered in such widely separated localities as Fort-Chimo and Poste-de-la-Baleine, it could presumably be widespread along the tree-line. The inland record of Rivière-à-l'Eau-Claire suggests such an interpretation. Observed colonies appeared prosperous with brood; adult populations averaged 45 workers with one or many queens. Eight of the thirteen complete colonies collected were polygynous. Nests were built in soil under stones, in small and dry pieces of dead trunks, and in dead roots and twigs partially buried under mosses. Habitats: rocky outcrops with muskeg, old logged stand of spruce and tamarack, disturbed rocky coastal bluff with dwarf birch, *Elymus* strips near water, and balsam poplar stand. Gregg (1972) did record *L. acervorum* in the shrub tundra of Churchill area, but under the name *L. canadensis kincaidi* Pergande (specimens examined). Workers of this species were also kindly provided from the same area by Dr. S.A. Elias. This comparatively large *Leptothorax* is easily recognized

by the shape and size of the postpetiole and the numerous suberect appendage hairs in all castes.

In Québec, colonies exhibit ecological characteristics similar to those of populations in Europe, where nests are also found in peat of open moorland and rock crevices in the northern part of the species range (Bolton and Collingwood, 1975; Collingwood, 1979).

### *Leptothorax muscorum* (Nylander)

Brown's (1955) study on the taxonomy of lower taxa associated with the name *L. canadensis* Provancher, shows that these ants represent a holarctic species of boreal-alpine nature. It holds the northernmost record for the nearctic ant fauna: one living worker was collected at Kidluit Bay, on Richards Island, Northwest Territories of Canada (69°32'N, 133°47'W). This species of *Leptothorax* appears widely distributed throughout Québec from the south to the tree-line (unpublished data), assuming that only one biological entity is involved.

Colonies usually build their nests in pieces of dead, dry or decaying wood lying on the soil surface or partly buried, such as branches, twigs, tree roots, and under miscellaneous objects abandoned by man such as tin and boards. Nest populations can reach one hundred adults or more. Habitats: open spruce and tamarack stands, old logged areas, ruderal zones, rocky outcrops with dwarf birch and muskeg, *Elymus* strips near water. Gregg (1972) collected one colony under stones in tundra heath near Churchill, Manitoba.

### *Camponotus herculeanus* (Linné)

In the areas explored I could not locate any colony, though a single stray worker was seen running on two different occasions. One dead dealated queen was found alone in a small cavity carved in dead wood. Old galleries in decaying trunks were observed four times.

Colonies nest in rotten logs and stumps, rarely in soil. Habitats: wooded sites and disturbed areas with pieces of