

Ants of British Columbia (Hymenoptera: Formicidae)

by

Robert J. Higgins (Thompson Rivers University) and
B. Staffan Lindgren (University of Northern British Columbia)

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British Columbia is Canada's westernmost province comprising about ten percent of the landmass of Canada at approximately 950,000 square kilometres. As British Columbia includes two major mountain ranges that each dominate the western coastal and eastern interior borders, there are a series of moisture regimes one encounters travelling east-west. This in combination with the fact that British Columbia spans 11 degrees of latitude (49-60° N) creates a great number of distinct ecosystems.

Despite the great diversity of habitats and the abundance of ants in many areas, surveys of the ant fauna in British Columbia have been quite rare. To our knowledge, none have been done within the province above 54 N° latitude. Fortunately, what sparse literature does exist with respect to ant species, geography, and ecology was summarized by Naumann *et al.* 1999¹.

Species diversity is expectedly higher in the south. Heron (2001)² working in the dry-warm southern grasslands of the Okanagan found 31 species of 13 genera using pitfall trapping. Higgins and Lindgren (unpub)⁵ working in the cold-moist spruce forests of the west-central interior identified a total of 16 species of 7 genera using pitfall trapping, ground surveys and mini-Winkler soil sampling. Ants in this latter habitat are largely found in post-logging sites where the canopy has been opened. Non-logged sites rarely yielded ants although the occasional colony of *Myrmica alaskensis* or *Camponotus herculeanus* might be found where small scale natural disturbances have opened small gaps in the forest canopy.

One notable ecological characteristic of the ants of British Columbia, especially those of the interior, is a dependence upon woody material as a nesting resource. Of the ants collected in the cold-moist spruce forests of the west-central interior only one species, *Myrmica fracticornis* was never associated with woody debris (Higgins and Lindgren 2004)³

Contact information: Robert J. Higgins, Assistant Professor, Department of Biology
Thompson Rivers University (rhiggins@tru.ca)

Species list

Taxonomy follows Bolton *et al.* (2005)⁶ except where noted

Species list for ants confirmed as occurring in province (81 species)

Family Formicidae

Subfamily Formicinae

Brachymyrmex depilis Emery¹

Camponotus (Camponotus) herculeanus (Linnaeus)^{1,3,4} boreal carpenter ant

Camponotus (Camponotus) laevigatus (Smith, F.)¹

Camponotus (Camponotus) modoc Wheeler, W.M.^{1,4}

Camponotus (Camponotus) noveboracensis (Fitch)¹

Camponotus (Myrmentoma) near hyatti Emery¹

Camponotus (Myrmentoma) nearcticus Emery^{1,2}

Camponotus (Tanaemyrmex) vicinus Mayr^{1,2}

Formica

Note: Bolton (2005) does not recognize *Formica* species groups.

However, they are in common usage.

Formica fusca group

Formica accreta Francoeur^{1,3}

Formica aerata Francoeur¹

Formica argentea W.M. Wheeler^{1,2,4}

Formica fusca Linnaeus^{1,4}

Formica hewitti Wheeler, W.M.^{1,4}

Formica montana Wheeler, W.M.¹

Formica neoclara Emery^{1,2}

Formica neorufibarbis Emery^{1,3,4}

Formica pacifica Francoeur¹

Formica podzolica Francoeur¹

Formica subpolita Mayr^{1,2}

Formica transmontanis Francoeur¹

Formica xerophila Smith, M.R.¹

Formica neogagates group

Formica lasioides Emery^{1,2,4}

Formica manni Wheeler, W.M.¹

Formica neogagates Emery^{1,2}

Formica vinculans Wheeler, W.M.^{2,9}

Formica rufa + *microgyna* groups

Formica adamsi whymperi Wheeler, W.M.¹

Formica dakotensis Emery⁵

Formica densiventris Viereck¹

Formica integroides Wheeler, W.M.^{1,2}

Formica microgyna W.M. Wheeler^{1,2}

Formica near nepticula W.M. Wheeler²

Formica obscuripes Forel ^{1,2,4} western thatching ant
Formica obscuriventris Mayr ^{1,3,4}
Formica oreas Wheeler, W.M. ¹
Formica planipilis Creighton ²
Formica propinqua Creighton ²
Formica ravida (jr. synonym *haemorrhoidalis*) Creighton ^{1,2}
Formica spatulata Buren ¹
Formica subnitens Creighton ¹
Formica sanguinea group
Formica aserva (jr. synonym *subnuda*) Forel ^{1,3,4}
Formica curiosa Creighton ^{1,2}
Formica obtusopilosa Emery ¹
Lasius (*Acanthomyops*) *coloradensis* Wheeler, W.M. ¹
Lasius (*Acanthomyops*) *interjectus* Mayr ¹ larger yellow ant
Lasius (*Acanthomyops*) *latipes* (Walsh) ¹
Lasius (*Acanthomyops*) *occidentalis* Wheeler, W.M. ¹
Lasius (*Cautolasius*) *fallax* Wilson ¹
Lasius (*Cautolasius*) *flavus* (Fabricius) ¹
Lasius (*Chthonolasius*) *subumbratus* Viereck ^{1,4}
Lasius (*Chthonolasius*) *vestitus* Wheeler, W.M. ¹
Lasius (*Lasius*) *alienus* (Foerster) ¹
Lasius (*Lasius*) *crypticus* Wilson ^{1,2}
Lasius (*Lasius*) *neoniger* Emery ^{1,2}
Lasius (*Lasius*) *pallitarsis* (Provancher) ^{1,4}
Myrmecocystus testaceus Emery ^{1,2}
Polyergus breviceps Emery ^{1,2,3}

Subfamily Dolichoderinae

Liometopum luctuosum W.M. Wheeler ²
Tapinoma sessile (Say) ^{1,2,4}

Subfamily Myrmicinae

Aphenogaster occidentalis (Emery) ¹ Note: recorded as
A. subterranea by Heron (2001)
Formicoxenus quebecensis Francoeur ¹
Leptothorax muscorum (jr. synonym *L. canadensis*) (Nylander) ^{1,3,4}
Manica hunteri (Wheeler, W.M.) ¹
Manica invidia Bolton ^{1,4}
Monomorium pharaonis (Linnaeus) ¹ pharaoh ant
Myrmica alaskensis Wheeler, W.M. ^{3,4}
Myrmica brevispinosa Wheeler, W.M. ^{1,4}
Myrmica crassirugis Francoeur ^{2,5,7}
Myrmica fracticornis Forel ^{3,4}
Myrmica incompleta Provancher ^{1,3,4}
Myrmica latifrons Starcke ¹
Myrmica lobifrons Pergande ¹

Myrmica nearctica Weber ²
Pheidole californica Mayr ^{1,2}
Pogonomyrmex salinus Olsen ¹ (jr. synonym *P. owyheeii*)
Solenopsis molesta Say ^{1,2} thief ant
Stenamma snellingi Bolton ¹ (jr. synonym *occidentale*)
Stenamma diecki Emery ¹
Temnothorax rugatulus (Emery) ¹
Temnothorax nevadensis (Wheeler, W.M.) ^{1,2}
Temnothorax nitens (Emery) ²

Subfamily Amblyoponinae

Amblyopone oregonense (Wheeler, W.M.) ¹

Species list for ants suspected as present in the province but not confirmed (15 species)

Family Formicidae

Subfamily Formicinae

Camponotus (Tanaemyrmex) semitestaceus Snelling ¹

Formica exsecta group

Formica ulkei Emery ¹

Formica fusca group

Formica gagatoides Ruzky ⁸

Formica neogagates group

Formica bradleyi Wheeler, W.M. ¹

Formica sanguinea group

Formica puberula Emery ¹

Formica subintegra Wheeler, W.M. ¹

Lasius (Chthonolasius) umbratus (Nylander) ¹

Lasius (Lasius) nigra (Linnaeus) ¹ (original comb. *L. niger*)

Subfamily Myrmicinae

Formicoxenus diversipilosus (Smith, M.R.) ¹

Formicoxenus provancheri (Emery) ¹

Leptothorax acervorum (Fabricius) ¹

Leptothorax faberi Buschinger ¹

Leptothorax retractus Francoeur ¹

Monomorium minimum (Buckley) ¹ little black ant

Tetramorium caespitum (Linnaeus) ¹

Species list for ants reported in province that may have arisen from misidentification (2 species)

Subfamily Formicinae

Lasius (Acanthomyops) claviger (Roger) ¹

Subfamily Dolichoderinae

Liometopum apiculatum Mayr ¹

Ant species reported in province that might represent isolated transport of a single individual (1 species)

Subfamily Formicinae

Formica rufa + *microgyna* groups

Formica laeviceps Creighton ¹

References

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