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SAWFLIES (HYMENOPTERA: SYMPHYTA) FROM GEORGE LAKE, ALBERTA

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ABSTRACT

Seventy-three species of Symphyta are recorded from George Lake, Alberta. Of this total, 66 species were collected by the author in a three day period in 1978, and seven species are recorded from the University of Alberta insect collection. Most species are found in eastern North America; only seven of the species recorded are known only from western Canada and United States.

RESUME

Soixante-treize espèces de Symphytes ont été inventoriées à George Lake, en Alberta. De ce total, l'auteur en a collectionné soixante-six au cours d'une excursion de trois jours en 1978. Les sept autres espèces se trouvaient dans la collection d'insectes de l'Université de l'Alberta. La plupart des espèces se trouvent aussi dans l'est de l'Amérique du Nord; seulement sept des espèces rapportées ici ne sont connues que de l'ouest du Canada et des Etats-Unis.

In 1978 I had the privilege of spending three days, June 1 to June 3, at the University of Alberta's George Lake Field Station about 50 miles northwest of Edmonton, Alberta. The area consists of about one square mile of forest bordered on one side by the lake and on the other sides by farmland. During this time, I collected 66 species of Symphyta. An additional seven species were found in the University of Alberta insect collection, bringing the total recorded from George Lake to 73 species. This is not a complete list, but a good indication of the number of species that can be found in a small area of mixed vegetation. A similar account was given by Strickland (1954) who collected 53 species of sawflies during a period of two weeks in an area of about a half square mile near Gull Lake, Alberta.

Most of the specimens were collected by sweeping or directly from the foliage along a forest trail to the lake, on the roadside and in a small cleared area with low vegetation. The remainder were collected by Malaise traps set up in the forest.

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All specimens were identified by me except for the *Pristiphora* which were determined by H.R. Wong. Those identified as "sp." or "spp." cannot be named until taxonomic difficulties in those genera are resolved.

Only a few generalities can be given about affinities of the sawfly fauna of George Lake, because this is not a complete survey and several species cannot be identified. Of the 55 identified to species, 47 are also found in eastern North America; of these 47, 17 are transcontinental in Canada and northern United States, 17 are both transcontinental and Holarctic, and 13 are primarily eastern, with Alberta on the western edge of their distributions. Consequently, most of the species from George Lake are the same as those one would expect to collect in southeastern Canada and northeastern and north central United States. Only one species, *Empria evansi*, is so far known only from Alberta. The other seven species are mainly western; these are *Birka nordica* (Alberta, Alaska, British Columbia, Yukon), *Dolerus nasutus* (Alberta and Montana to British Columbia and California), *Monardis pulla* (Saskatchewan and Colorado to British Columbia and Utah), *Allantus albolabris* (Alberta and Colorado to Alaska and California), *Macremphytus lovetti* (Alberta and Montana to British Columbia and Oregon), *Tenthredo fraternalis* (Alberta, British Columbia), and *Tenthredo varipicta* (Alaska to Alberta and California). Thus there is a slight mixture of some western species, but most species from George Lake are typical components of the eastern deciduous forests and temperate and boreal transcontinental regions. When all the material is identified, I would expect similar results.

In the following list (H) = Holarctic, those species or subspecies also found in parts of Eurasia and all of which are transcontinental in North America, (T) = transcontinental species or subspecies found only in North America, (E) = eastern species or subspecies for which Alberta is the western edge of their range, and (W) = species which are mainly western in distribution, mostly from the Rocky Mountains to the West Coast. An asterisk indicates a record from the Strickland Museum, University of Alberta.

PAMPILIIDAE

Pamphilius ochreipes (Cresson) (T)

CIMBICIDAE

Zaraea inflata Norton (E)

ARGIDAE

Arge clavicornis (Fabricius) complex (H)

TENTHREDINIDAE

Selandriinae

Birka nordica Smith (W)

Dolerinae

Dolerus aprilis (Norton) (E)
Dolerus elderi Kincaid (H)
Dolerus nasutus MacGillivray (W)
Dolerus neocollaris neocollaris MacGillivray (E)
Dolerus sericeus sericeus (Say) (T)
Dolerus similis similis (Norton) (T)
Dolerus subfasciatus neoaprilis MacGillivray (T)
Dolerus yukonensis yukonensis Norton (H)
Dolerus sp.
Loderus evermanni acidus MacGillivray (T)
Loderus pratorum albifrons (Norton) (H)
Loderus vestigialis apricus (Norton) (H)

Heterarthrinae

Fenusia pusilla (Lepeletier) (H)

Blennocampinae

Monophadnoides geniculatus (Hartig) (H)
Monophadnoides pauper (Provancher) (E)
Monophadnoides sp. near *conspiculatus* MacGillivray (E)
Phymatocera sp.
Monardis pulla Smith (W)

Allantinae

- **Empria ignota* (Norton) (T)
- Empria improba* (Cresson) (T)
- Empria maculata* (Norton) (T)
- **Empria obscurata* (Cresson) (T)
- Empria evansi* Smith (Alberta)
- Ametastegia* sp.
- Monostegia inferentia* (Norton) (E)
- Phrontosoma broccum* Smith (T)
- Allantus albolabris* (Rohwer) (W)
- Allantus mellipes* (Norton) (E)
- **Macremphytus lovetti* MacGillivray (W)
- Taxonus pallicoxus* (Provancher) (E)

Nematinae

- Priophorus morio* (Lepeletier) (H)
- Priophorus pallipes* (Lepeletier) (H)
- Fallocampus americanus* (Marlatt) (T)
- **Hemichroa crocea* (Geoffroy) (H)
- Hemichroa militaris* (Cresson) (T)
- Pachynematus* spp. (Two species that cannot be named at present. One of the two species should be marked *).
- Nematus oligospilus* Foerster (H)
- Nematus* spp. (Three species that cannot be named at present).
- Pontania* spp. (Three species that cannot be named at present).
- Phyllocolpa* sp.
- Euura* sp.
- Amauronematus* spp. (Five species that cannot be named at present).
- Pristiphora borea* (Konow) (H)
- Pristiphora cincta* Newman (H)
- Pristiphora rufipes* Lepeletier (H)
- Pristiphora siskiyouensis* Marlatt (T)
- Pristiphora sycophanta* Walsh (T)
- Pristiphora zella* Rohwer (E)

Tenthredininae

- Rhogogaster californica* (Norton) (H)
- Pachyprotasis rapae* (Linnaeus) (H)
- Macrophya trisyllaba* (Norton) (E)

- Macrophya varia* (Norton) (E)
**Tenthredo colon* Klug (H)
Tenthredo concessa Norton (E)
**Tenthredo fraternalis* (Ross) (W)
Tenthredo leucostoma Kirby (E)
Tenthredo piceocincta Norton (T)
**Tenthredo varipicta* Norton (W)
Tenthredo sp. near *pectoralis* Norton (T)

CEPHIDAE

Janus integer Norton (T)

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REFERENCES

- Strickland, E.H. 1954. A key to the females of *Tenthredo* of the Canadian Prairies (Hymenoptera, Tenthredinidae). Canadian Entomologist 86: 278-281.