

**A Checklist of the Robber Flies (Diptera: Asilidae) of British Columbia  
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**Robert A. Cannings  
Royal British Columbia Museum  
675 Belleville Street  
Victoria, B.C. V8W 9W2**

### **Introduction**

The robber fly family (Diptera: Asilidae) contains over 7000 described species worldwide and over 200 in Canada. Although in North America the Asilidae is predominantly a southern family, especially diverse in arid and semiarid environments, over the years specimens have been rather frequently collected in British Columbia. With its varied physiography and diverse biogeoclimatic zones, the province contains a wide variety of robber fly habitats, from seashore sand dunes and coastal meadows to dry grasslands and subalpine meadows. The diversity of asilids present reflects this richness of habitats, and the province supports more species than any other in Canada. The species total for British Columbia now stands at 116 (33 genera), but it is certain that more remain to be recorded.

This species list must be considered preliminary. Taxonomic problems remain in many genera, the status of several species is in question, and a number of specimens probably represent undescribed species. Revisions of many genera are required -- *Leptogaster*, *Lestomyia*, *Niocles*, *Laphria*, *Cyrtopogon*, *Eucyrtopogon* and *Machimus* are some examples.

### **Biogeography: Faunal Elements**

Species may be grouped with others that share similar distributions to form what can be termed faunal elements. The majority of the 116 species known from British Columbia are restricted to the Nearctic region, although two (*Laphria gilva* and *Rhadiurgus variabilis*) are holarctic (defined here as species with transcontinental ranges in both North America and Eurasia; indicated with an H in the list). One species (*Lasiopogon hinei*) is known from Eurasia but does not have a true holarctic distribution. This section describes the Nearctic faunal elements pertaining to the province (species with holarctic distributions are also assigned to a North American faunal element). These faunal elements are:

1. **East Beringian** (EB) (1 species, 0.9 %). Species confined to the extreme northwest in the New World, presumably having lived in the Beringian glacial refugium during the Pleistocene. Not occurring west of the Bering Strait.
2. **Palaeartic-East Beringian** (PEB) (1 species, 0.9 %). East Beringian in North America (Alaska, Yukon and adjacent areas), but with a widespread range across Eurasia.
3. **Boreal** (B) (10 species, 8.6 %). Species occurring in the northern spruce (*Picea*) forests, across the boreal zone from treeline to the southern margin. In general, these

- species range from the Atlantic Provinces across the northern New England states, Quebec, northern Ontario, parts of the northern tier of mid-western states, the Prairie Provinces north of the Great Plains, and northern British Columbia, often ranging considerably southward in the higher mountains and plateaus of the western Cordillera.
4. **Cordilleran** (C) (60 species, 51.7 %). Species of the mountains and plateaus of western North America, mainly in coniferous forests.
  5. **Coastal Montane** (CM) (3 species, 2.6 %). Species restricted to the coniferous forests or subalpine meadows in the mountains of the Coast and Cascade ranges.
  6. **Intermontane** (IM) (22 species, 19 %). Species largely confined to grasslands, shrub-steppes and adjacent open woodland in the valleys and plateaus of the Cordillera.
  7. **Great Plains** (GP) (1 species, 0.9 %). Species more or less restricted to the grasslands of the Great Plains.
  8. **Pacific Coastal** (PC) (10 species, 8.6 %). Species of the forests, meadows and beaches of the Pacific coastal lowlands.
  9. **Western** (W) (4 species, 3.4 %). Species confined to west of the 100th meridian but otherwise ranging widely in North America.
  10. **Austral** (A) (4 species, 3.4 %). Species ranging across the continent mostly south of the boreal forests, and with most of their range in the United States.

### Species List

The classification and taxonomy presented below follow Fisher and Wilcox (1997). This classification is out-of-date based on recent molecular studies (Dikow 2009), but a satisfactory, comprehensive, new classification is not yet available.

#### **Subfamily Leptogastrinae (3 species)**

*Leptogaster* Meigen

*Leptogaster arida* Cole in Cole & Lovett. (IM). BC and Alberta to California and Arizona. Southern BC.

*Leptogaster coloradensis* James. (W). BC east to South Dakota, south to Kansas and Colorado. Southern BC.

*Leptogaster fornicata* Martin. (IM). BC to California. BC: Southern Interior (Fraser River, Okanagan).

#### **Subfamily Dasypogoninae (11 species)**

Tribe Dasypogonini

*Lestomyia* Williston

*Lestomyia sabulona* Osten Sacken. (IM). BC to Utah and California. South Okanagan.

Tribe Isopogonini

*Comantella* Curran

*Comantella pacifica* Curran. (IM). BC to Utah and Nevada. BC: Southern Interior (Penticton is type locality).

*Cophura* Osten Sacken

*Cophura albosetosa* Hine. (C). BC to Oregon and Utah. Southern BC; north to Mt. Revelstoke (Type locality is Hope Mountains).  
*Cophura brevicornis* (Williston). (IM). BC and Montana to Colorado and California; Nebraska. Nicola and Okanagan valleys north to Chilcotin.  
*Cophura scitula* (Williston). (IM?). BC to California. Southern Interior.  
*Cophura vitripennis* (Curran). (C). BC to Wyoming. Southern BC (Seton Lake is type locality).

*Nicocles* Jaennicke

*Nicocles canadensis* Curran. (PC). BC to California. South coast (Saanich is type locality).  
*Nicocles dives* (Loew). (C). BC to Nevada and California. Southern Interior.  
*Nicocles pollinosus* Wilcox. (C). BC and Montana to California. Southern Interior.  
*Nicocles rufus* Williston. (PC). BC to California. Southern Vancouver Island, Gulf Islands.  
*Nicocles utahensis* Banks. (C). BC and Alberta to Arizona and California. Southern Interior.

### **Subfamily Laphriinae (24 species)**

Tribe Andrenosomini

*Andrenosoma* Rondani

*Andrenosoma fulvicaudum* (Say). (A). BC to New Brunswick, south to Florida and California; Mexico. Southern Interior.

*Pogonosoma* Rondani

*Pogonosoma ridingsi* Cresson. (C). BC and Alberta to South Dakota, south to Texas and California; Michigan to Maine. Southern BC.

Tribe Laphriini

*Laphria* Meigen

*Laphria aimatus* McAtee. (C). BC and Alberta to New Mexico and California. Southern Interior.

*Laphria asackeni* Wilcox. (C). Alaska and BC to Montana, Colorado and California. Southern BC.

*Laphria astur* Osten Sacken. (C). BC to Nevada and California. Southern BC.

*Laphria asturina* (Bromley). (C). Alaska to Alberta, south to Idaho and Oregon. Southern Interior (Robson is type locality).

*Laphria columbica* Walker in Lord. (C). Alaska, BC and Alberta to California. Southern BC (BC is type locality).

*Laphria felis* (Osten Sacken). (C). BC and Alberta to New Mexico and California. Southern BC.

*Laphria fernaldi* (Back). (C). BC and Alberta to New Mexico and California. Widespread.

*Laphria ferox* Williston. (C). BC and Montana to California. Widespread.

- Laphria franciscana* Bigot. (C). BC through Idaho and Washington to California. Southern BC. Uncommon.
- Laphria gilva* (Linnaeus). (H:B). Northern Eurasia; Alaska and Yukon to New Brunswick, south to Pennsylvania, Colorado and California. Widespread.
- Laphria index* McAtee. (B). BC to Oregon and Montana; South Dakota east to Quebec and Maine, south to South Carolina and Oklahoma. Southern Interior (Robson; specimens not seen).
- Laphria insignis* (Banks). (B). Yukon to Labrador and Nova Scotia, south to Maine, Michigan, Minnesota and BC. Widespread.
- Laphria janus* McAtee. (B). Alaska through Northwest Territories to New Brunswick, south to Pennsylvania, Colorado, Utah and Oregon. Widespread.
- Laphria milvina* Bromley. (C). Yukon and BC to Colorado and Oregon. Southern Interior.
- Laphria partitor* (Banks). (C). BC and Alberta to California. Widespread.
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- Laphria posticata* Say. (B). Yukon to Quebec and Maine, south to Georgia, Tennessee, Wisconsin and BC. Interior, especially in north.
- Laphria sackeni* (Banks). (C). BC to California. Southern Interior (Robson; specimens not seen).
- Laphria sadales* Walker. (B). BC to Quebec, south to Connecticut, Pennsylvania, Colorado, Utah and California. Widespread.
- Laphria scorpio* McAtee. (B). BC and Idaho to Quebec and Nova Scotia, south to Connecticut, Pennsylvania and Minnesota. Interior.
- Laphria ventralis* Williston. (PC). BC to California. Southern Vancouver Island and Gulf Islands.
- Laphria vivax* Williston. (C). Yukon and Alberta to New Mexico and California. Widespread in Interior.
- Laphria vultur* Osten Sacken. (C) BC to California. Southern BC.

### **Subfamily Stenopogoninae (48 species)**

#### Tribe Cyrtopogonini

##### *Callinicus* Loew

- Callinicus pollenius* (Cole 1919). (C). BC and Montana south to Wyoming, Utah and California. Southern BC.

##### *Coleomyia* Wilcox & Martin

- Coleomyia hinei* Wilcox & Martin. (C). BC south to Montana, Idaho and Oregon. Southern Interior.

##### *Cyrtopogon* Loew

- Cyrtopogon ablautoides* Melander 1923. (C). BC south to Utah and Oregon. Okanagan.
- Cyrtopogon albovarians* Curran 1924. (C). Alberta and BC. Kootenays. May be pale female morph of *C. montanus*.
- Cyrtopogon anomalus* Cole in Cole & Lovett 1919. (C). BC and Idaho south to California. Agassiz (Wilcox & Martin 1936); Coquihalla River at Hope.

- Cyrtopogon auratus* Cole in Cole & Lovett 1919. (C). BC and Alberta south to Colorado, Utah and Oregon. Southern Interior north to Chilcotin.
- Cyrtopogon aurifex* Osten Sacken 1877. (CM). BC and Alberta south to California. Coast and Cascade mountains; Vancouver Island to sea level.
- Cyrtopogon banksi* Wilcox & Martin. (C). Yukon south to Colorado, Utah and California.
- Cyrtopogon bimaculus* (Walker 1851). (H: B). Yukon to Quebec, south to New Mexico, Utah and Oregon. Widespread in subalpine forests.
- Cyrtopogon dasyllis* Williston 1893. (C). Alaska, Yukon and NWT south to Idaho and California. Widespread subalpine.
- Cyrtopogon dasylloides* Williston 1883. (C). BC south to Utah and California. Southern BC in subalpine.
- Cyrtopogon dubius* Williston 1883. (C). BC south to Oregon. Southern Coast Mountains.
- Cyrtopogon falto* (Walker 1849). (B). BC east to Nova Scotia, south to Florida and Illinois. Skeena Valley.
- Cyrtopogon fumipennis* Wilcox & Martin 1936. (C). Yukon south through BC to Wyoming and Utah.
- Cyrtopogon glarealis* Melander 1923. (C). Yukon and Alberta south to Colorado and California.
- Cyrtopogon infuscatus* Cole in Cole & Lovett 1919. (C). BC south to Wyoming, Nevada and California.
- Cyrtopogon inversus* Curran 1923. (C). BC and Alberta south to Colorado, Nevada and Washington. Southern BC north to Chilcotin. Aspen Grove is type locality.
- Cyrtopogon lineotarsus* Curran 1923. (C). BC, Alberta and NWT south to Montana, and Washington. Interior. (= *predator* Curran 1923).
- Cyrtopogon montanus* Loew 1874. (C). BC and Alberta south to New Mexico and California. Southern BC. (= *C. leucozonus* Loew 1874).
- Cyrtopogon nugator* Osten Sacken 1877. (C). BC to California. Not seen. In Stone *et al.* 1965; records refer to *C. banksi*??
- Cyrtopogon praepes* Williston 1883. (IM). Washington to California. Southern Interior. (specimen determined by Cole but perhaps refers to *C. willistoni*??).
- Cyrtopogon princeps* Osten Sacken 1877. (CM). BC to California. Cascade Mountains.
- Cyrtopogon sansoni* Curran 1923. (C). BC and Alberta. Kootenays.
- Cyrtopogon sudator* Osten Sacken 1877. (C). BC south to Nevada and California. Kaslo; not seen (see Wilcox & Martin 1936)
- Cyrtopogon willistoni* Curran 1922. (IM). BC and Alberta south to Colorado and California. Southern Interior north to Chilcotin (Chilcotin is type locality).
- Eucyrtopogon* Curran
- Eucyrtopogon calcaratus* Curran 1923. (C). BC and Alberta south to Washington. Southern Interior.
- Eucyrtopogon comantis* Curran 1923. (C) BC and Alberta south to Colorado and Utah. Southern Interior (Chilcotin is type locality).
- Eucyrtopogon diversipilosus* Curran 1923. (C). Yukon south to BC and Alberta. Southern Interior (Chilcotin is type locality).

*Eucyrtopogon nebulo* (Osten Sacken 1877). (C). Yukon? south through BC and Alberta to Wyoming, Nevada and California. Southern BC. Yukon specimens may be undescribed.

*Eucyrtopogon punctipennis* (Melander 1923). (C). BC to Idaho and Washington. Southern BC.

*Eucyrtopogon spiniger* Curran 1923. (C). NWT to BC and Alberta. Southern BC. Victoria is type locality.

*Eucyrtopogon varipennis* (Coquillett 1904). (C). BC to California. Southern BC.

*Heteropogon* Loew

*Heteropogon senilis* (Bigot 1878). (C). BC south to Utah and California. Southern BC.

*Holopogon* Loew

*Holopogon albipilosus* Curran. (C). BC east to Manitoba, south to Minnesota, Utah, Nevada and California. Southern Interior (Vernon is type locality).

*Holopogon stellatus* Martin 1959. (C). BC south to Utah, Nevada and California. Southern Interior.

Tribe Dioctrini

*Dioctria* Meigen

*Dioctria henshawi* Johnson 1918. (C). BC to Utah and California. Southern Interior; Cascade Mountains.

*Dioctria pusio* Osten Sacken 1877. (C). BC south to Colorado, Utah and California; Baja California. Southern Interior.

Tribe Echthodopini

*Dicolonus* Loew

*Dicolonus nigriventris* Adisoemarto & Wood 1975. (IM). BC to Idaho and Oregon. Southern Interior north to Chilcotin.

*Dicolonus simplex* Loew 1866. (PC). BC to California. Southern Vancouver Island and Gulf Islands.

*Eudioctria* Wilcox & Martin

*Eudioctria nitida* (Williston 1883). (PC). BC to California. Southern Vancouver Island, Lower Mainland.

*Eudioctria sackeni* (Williston 1883). (C). BC south to Montana, Idaho and California. Southern BC.

*Myelaphus* Bigot

*Myelaphus lobicornis* (Osten Sacken 1877). (IM). BC to Colorado, Utah and California. Southern Interior.

Tribe Stenopogonini

*Ospriocerus* Loew

*Ospriocerus aeacus* (Wiedemann 1828). (W). BC east to Saskatchewan and Minnesota, south to Texas and California; Mexico.

*Scleropogon* Loew

*Scleropogon bradleyi* (Bromley 1937). (IM/PC). BC south to Utah, Nevada and California. Southern Vancouver Island, Gulf Islands; Lytton.

*Scleropogon neglectus* (Bromley 1931). (IM). BC and Alberta south to New Mexico and California. Southern Interior.

*Stenopogon* Loew

*Stenopogon inquinatus* Loew 1866. (W). BC east to Manitoba and Minnesota, south to Texas and California. Southern BC; Peace River.

*Stenopogon rufibarbis* Bromley 1931. (IM). BC and Alberta south to Colorado, Arizona and California. Southern Interior.

Tribe Willistonini

*Willistonina* Back

*Willistonina bilineata* (Williston 1883). (IM). BC south to Montana, Utah, Baja California. Okanagan/ Nicola.

**Subfamily Stichopogoninae (11 species)**

*Lasiopogon* Loew

*Lasiopogon actius* Melander 1923. (PC). BC south to California. Queen Charlotte Islands.

*Lasiopogon aldrichii* Melander 1923. (C). BC and Alberta south to Colorado, Utah and Oregon. Southern Interior.

*Lasiopogon cinereus* Cole in Cole & Lovett 1919. (C). BC and Alberta south to Wyoming, Utah and California. Widespread in Interior of BC; from Peace River in north to Cascade Mountains in south.

*Lasiopogon fumipennis* Melander 1923. Subspecies *L. f. olympia* Cole & Wilcox 1938. (PC). BC and Idaho to Colorado and California. Lower Mainland.

*Lasiopogon hinei* Cole & Wilcox 1938. (PEB). Northwestern Russia to Bering Strait; Alaska, Yukon, BC and Alberta. Northeastern BC.

*Lasiopogon monticola* Melander 1923. (C). BC to Montana, south to Utah and California. Southern Interior.

*Lasiopogon pacificus* Cole & Wilcox 1938.(PC). BC south to Oregon. Lower Mainland.

*Lasiopogon primus* Adisoemarto 1967. (EB). Alaska, Yukon, NWT, BC and Alberta. Northern BC.

*Lasiopogon quadrivittatus* Jones 1907. (GP). British Columbia and Alberta east to Saskatchewan and North Dakota, south to Utah, New Mexico and Nebraska. In Canada, the species is restricted to the Great Plains; south from Montana it also ranges west into the intermontane plateaux and mountains.

*Lasiopogon willametti* Cole & Wilcox 1938. (PC). BC south to California. Lower Mainland and Vancouver Island.

*Stichopogon* Loew

*Stichopogon fragilis* Back 1909.(IM). BC to New Mexico and Baja California. South Okanagan.

**Subfamily Asilinae (18 species)**

Tribe Apocleini

*Efferia* Coquillett

*Efferia albibarbis* (Macquart 1838). (A). BC and Ontario; entire United States south to Costa Rica. South Okanagan.

*Efferia benedicti* (Bromley 1940). (IM). BC south to Arizona and California. Southern Interior.

*Efferia coulei* Wilcox 1966. (IM). BC and Washington. Southern Interior north to Chilcotin.

*Efferia frewingi* Wilcox 1966. (IM). BC and Alberta south to Utah and California. Southern Rocky Mountain Trench.

*Efferia harveyi* (Hine 1919). (IM). BC south to Utah and California. Southern Interior north to Chilcotin (Vernon is type locality).

*Efferia okanagana* Cannings 2011. (IM). BC. Okanagan and Kamloops region.

*Efferia staminea* (Williston 1885). (IM). BC and Alberta south to Colorado and Utah.

*Megaphorus* Bigot

*Megaphorus willistoni* (Cole 1964) in Cole & Wilcox 1964. (IM). BC south to Arizona, Mexico and Nevada. South Similkameen.

*Nevadasilus* Artigas & Papavero

*Nevadasilus auriannulatus* (Hine 1906). (C). BC and Alberta, south to Colorado and California. Southern BC (Type locality is Hope Mountains).

*Proctacanthus* Macquart

*Proctacanthus milbertii* Macquart 1838. (A). BC east to Ontario, south to Florida (but absent in NE US north of Virginia), Texas, and Arizona. Southern Interior.

*Proctacanthus occidentalis* Hine 1911. (IM). BC south to Idaho, Nevada and California. Southern Interior.

Tribe Asilini

*Dicropaltum mesae* (Tucker 1907). (W). BC and Alberta south to Kansas, New Mexico and California. Southern Interior north to Chilcotin.

*Machimus* Loew

*Machimus callidus* (Williston 1893). (C). YT, BC and Alberta south to Colorado and California. Widespread.

*Machimus occidentalis* (Hine 1909). (C/IM). BC to Montana south to Colorado and Baja California. Southern BC.

*Machimus vescus* (Hine 1918). (IM). BC south to Colorado, Arizona, Nevada and California. Southern Interior.

*Neoitamus* Osten Sacken

*Neoitamus brevicornis* (Hine 1909). (C). BC south to Utah and California. Southern BC.

*Neomochtherus* Osten Sacken

*Neomochtherus willistoni* (Hine 1909). (C). BC south to Arizona and California.  
Southern BC.

*Rhadiurgus* Loew

*Rhadiurgus variabilis* (Zetterstedt 1838). (H:B). Northern Eurasia; Alaska and Yukon  
east to Quebec, south to Michigan, Colorado and Oregon. Widespread BC.

### References

Dikow, T. 2009. A phylogenetic hypothesis for Asilidae based on a total evidence analysis of morphological and DNA sequence data (Insecta: Diptera: Asiloidea). *Organisms, Diversity and Evolution* 9: 165-188.

Fisher, E.M. and J. Wilcox. 1997. Catalogue of the robber flies (Diptera: Asilidae) of the Nearctic Region. Unpublished preliminary draft.