

Robber flies (Diptera: Asilidae) new to Canada, British Columbia, Yukon and the Northwest Territories with notes on distribution and habitat

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ABSTRACT

Twenty-one species of robber flies from British Columbia, not previously reported in Canada, are listed. Three genera are also new: *Callinicus*, *Coleomyia*, and *Megaphorus*. Two additional genera (*Stichopogon* and *Andrenosoma*) and 12 species already known from Canada are reported for the first time from British Columbia. Sixteen species new to the Yukon, and seven to the Northwest Territories are also recorded. These records update the list of Asilidae for this region last published by Stone and others in 1965.

Key words: Diptera, Asilidae, British Columbia, Yukon, Northwest Territories, distribution, status

INTRODUCTION

This paper makes some additions to the list of the robber flies (Diptera: Asilidae) of British Columbia, Yukon and western Northwest Territories and discusses the status of other species. Some of these new records represent recent collections, some are the result of the examination of unidentified or misidentified specimens in various collections, and some are records of material simply not previously published. The starting point for the list is the treatment of the Asilidae by Martin and Wilcox in the Catalogue of Diptera of America by Stone *et al.* (1965). Species not listed from the region in that Catalogue, and that have not appeared in subsequent publications, are considered new records. Three short lists (Foxlee 1941, 1944; Hine 1904), overlooked and not in the 1965 Catalogue, are also included here as new material. Twenty-five species whose occurrences in the region have been published since the Catalogue, are listed separately and their status is clarified. The purpose of these lists is to update Stone's Catalogue for the western Canadian region.

Few publications relevant to the asilid fauna of the region have appeared since the Catalogue was published. Adisoemarto (1967) summarized the distribution of the robber flies of Alberta, and included some data from surrounding regions. Adisoemarto and Wood (1975) published some British Columbia records in their revision of *Dioctria* and relatives, as did Martin (1975) in his work on the Asilini and Wilcox on *Efferia* (1966) and *Stenopogon* and *Scleropogon* (1971). Cannings (1989) added a number of species to the Canadian total in a study of the asilid fauna of a *Festuca* grassland in the Okanagan Valley of British Columbia.

The species lists here are annotated with brief comments on range, distribution in the area under consideration, and other information. Localities are given for those species represented by only one or two records. Museum collections containing the material examined are: the California Academy of Sciences, San Francisco [CAS]; Canadian National Collection, Ottawa [CNC]; Spencer Entomological Museum, University of B.C., Vancouver [UBC]; Royal British Columbia Museum, Victoria [RBCM]; Royal Ontario Museum, Toronto [ROM]; Pacific Forestry Centre, Victoria [PFC]; University of Guelph, Guelph [UG].

RESULTS

Twenty-one species and three genera previously unrecorded in Canada are documented (Table 1). The genera are *Callinicus*, *Coleomyia*, and *Megaphorus*. Twelve other species and two genera (*Andrenosoma* and *Stichopogon*) have not previously been reported from British Columbia. Sixteen species are new to the Yukon and seven to the Northwest Territories.

Table 1

Range extensions of Asilidae. Species are newly recorded for the jurisdiction indicated.

CAN = Canada; BC = British Columbia; YT = Yukon Territory; NWT = Northwest Territories.

SPECIES	CAN	BC	YT	NWT
<i>Leptogaster arida</i>	X	X		
<i>Leptogaster fornicata</i>	X	X		
¹ <i>Callinicus pollenius</i>	X	X		
¹ <i>Coleomyia hinei</i>	X	X		
<i>Cyrtopogon ablautoides</i>	X	X		
<i>Cyrtopogon auratus</i>		X		
<i>Cyrtopogon bimacula</i>			X	X
<i>Cyrtopogon dasyloides</i>	X	X		
<i>Cyrtopogon dubius</i>	X	X		
<i>Cyrtopogon fallo</i>		X		
<i>Cyrtopogon fumipennis</i>			X	
<i>Cyrtopogon glarealis</i>			X	
<i>Cyrtopogon lineotarsus</i>		X		X
<i>Cyrtopogon princeps</i>	X	X		
<i>Cyrtopogon sansoni</i>		X		
<i>Eucyrtopogon diversipilosus</i>			X	
<i>Eucyrtopogon nebulo</i>			X	
<i>Eucyrtopogon punctipennis</i>	X	X		
<i>Heteropogon senilis</i>	X	X		
<i>Lasiopogon actius</i>	X	X		
<i>Lasiopogon canus</i>			X	X
<i>Lasiopogon cinereus</i>		X		
<i>Lasiopogon hinei</i>		X	X	
<i>Lasiopogon prima</i>		X	X	X
<i>Lasiopogon willametti</i>	X	X		
<i>Nicocles dives</i>	X	X		
<i>Nicocles rufus</i>	X	X		
² <i>Stichopogon fragilis</i>	X	X		
² <i>Andrenosoma fulvicaudum</i>		X		
<i>Laphria astur</i>	X	X		
<i>Laphria gilva</i>			X	
<i>Laphria index</i>		X		
<i>Laphria insignis</i>		X	X	X
<i>Laphria janus</i>			X	X
<i>Laphria milvina</i>			X	
<i>Laphria partitor</i>			X	
<i>Laphria posticata</i>		X	X	X
<i>Laphria sackeni</i>	X	X		
<i>Laphria ventralis</i>	X	X		
<i>Laphria vivax</i>			X	
<i>Laphria vultur</i>	X	X		
<i>Efferia frewingi</i>		X		
<i>Machimus callidus</i>			X	
<i>Machimus vescus</i>	X	X		
¹ <i>Megaphorus willistoni</i>	X	X		

1. Genus is new to Canada

2. Genus is new to British Columbia.

List of Robber Flies New to Canada, British Columbia, Yukon Territory, and Northwest Territories

Specific localities are listed when only a few collection sites are known, otherwise a general description of the distribution is given. The faunal element to which the species belongs is indicated by the following terms:

Beringian: restricted to the northern parts of the region, especially Alaska, the Yukon, and extreme northwestern Mackenzie.

Boreal: transcontinental in the Boreal Forest and south, to varying degrees, in the western mountains.

Cordilleran: mountain forests of western North America.

Holarctic: parts of both North America and Eurasia, usually Arctic-Alpine or Boreal Forest species.

Intermontane: plateaus and valleys of the western mountain ranges; predominantly grassland species. A few species in this category also spread into the grasslands of the western Great Plains.

Pacific Coast: west of the Coast Mountains; lowland forest or sea beach species.

Southern: from coast to coast south of the Boreal Forest, transcontinental at least in the United States; in Canada only in extreme southern areas.

Western: western mountains and associated lowlands, often extending into the adjacent areas of the Great Plains.

Subfamily Leptogastrinae

Leptogaster arida Cole. Western; dry forests and adjacent grasslands of the south coast and southern Interior of British Columbia [CNC, RBCM]. Ranges east to Alberta and south to California. New to Canada and British Columbia.

Leptogaster fornicata Martin. Intermontane; dry forests and adjacent grasslands of the southern Interior of British Columbia. Pavilion [UBC]; specimens from Osoyoos [RBCM, UBC] are close to this species. Also known from Idaho. New to Canada and British Columbia.

Subfamily Dasypogoninae

Callinicus pollenius (Cole). Cordilleran; dry forests of the southern Interior of British Columbia [CNC, RBCM, UBC, PFC]. South to Wyoming and California. Genus new to Canada and British Columbia.

Coleomyia hinei Wilcox and Martin. Cordilleran; dry forests of the southern Interior of British Columbia [CNC, RBCM, UBC]. South to Oregon and Idaho. Genus new to Canada and British Columbia.

Cyrtopogon ablautoides Melander. Cordilleran; dry forests of the southern Okanagan Valley (Oliver [CNC]). South to Washington. New to Canada and British Columbia.

Cyrtopogon auratus Cole. Cordilleran; subalpine forests of southern British Columbia north to the Cariboo region [CNC, RBCM]. East to Alberta and south to Utah and Wyoming. New to British Columbia.

Cyrtopogon bimacula Walker. Boreal; widespread in British Columbia, Yukon (north to Old Crow), and Northwest Territories [CNC, RBCM, UBC]. Trans-Canada south to New Hampshire and New Mexico. New to Yukon and Northwest Territories.

Cyrtopogon dasyloides Williston. Cordilleran; subalpine forests of southern British Columbia [CNC, RBCM, UBC]. South to California. New to Canada and British Columbia.

Cyrtopogon dubius Williston. Cordilleran; subalpine forests of southern Coast Mountains (Squamish, Diamond Head Trail [CNC]). South to Oregon. New to Canada and British Columbia.

- Cyrtopogon falto* Walker. Boreal; forests of central British Columbia (Skeena River Valley [CNC]). East to Nova Scotia, south along the Appalachians to Florida. New to British Columbia.
- Cyrtopogon fumipennis* Wilcox and Martin. Cordilleran; mountain forests north to the southern Yukon (Nahanni Range Rd., km 128; Carcross [UBC]). South to Washington and Idaho. New to Yukon.
- Cyrtopogon glarealis* Melander. Cordilleran; forests of the British Columbia Interior north to the central Yukon (Pelly Crossing [UBC]). East to Alberta, south to California and Wyoming. New to Yukon.
- Cyrtopogon lineotarsus* Curran. Cordilleran; forests of the British Columbia Interior (Robson [RBCM]), north to N.W.T. (Yellowknife [CNC]). According to Fisher and Wilcox (1987), *C. predator* Curran is a synonym of *C. lineotarsus*; *C. predator* is known from Fort Fraser and Fort St. James, B.C. [CNC]. East to Alberta, south to Washington and Montana. New to British Columbia and Northwest Territories.
- Cyrtopogon princeps* Osten Sacken. Cordilleran; subalpine forests of the Cascade Mtns. of southwestern British Columbia [RBCM]. South to California. New to Canada and British Columbia.
- Cyrtopogon sansoni* Curran. Cordilleran; Kootenay region of southeastern British Columbia (Robson [CNC]). East to Alberta. New to British Columbia.
- Eucyrtopogon diversipilosus* Curran. Cordilleran; forests of the British Columbia Interior north to the southern Yukon (Carcross [UBC]). East to Alberta. New to Yukon
- Eucyrtopogon nebulo* (Osten Sacken). Cordilleran; dry forests and adjacent grasslands; widespread in British Columbia (Cannings 1989) north to the northern Yukon (Old Crow, Mason Hill [RBCM, UBC]). South to California. New to Yukon. Yukon specimens may represent an undescribed species.
- Eucyrtopogon punctipennis* (Melander). Cordilleran; forests of southern British Columbia [CNC, RBCM, PFC]. South to Idaho and Washington. New to Canada and British Columbia.
- Heteropogon senilis* (Bigot). Cordilleran; forests of southern British Columbia [CNC, RBCM]. South to California. New to Canada and British Columbia.
- Lasiopogon actius* Melander. Pacific Coast; sand beaches of coastal British Columbia (Queen Charlotte Is. [RBCM]). South to California. New to Canada and British Columbia.
- Lasiopogon canus* Hine. Beringian; widespread in dry forests and streambanks of Yukon, including shrub tundra; east to Tuktoyaktuk Peninsula, Northwest Territories [CNC, RBCM, ROM, UBC]. Alaska south and east to northwestern Alberta. New to Yukon and Northwest Territories.
- Lasiopogon cinereus* Cole. Cordilleran; forests and streambanks of southern Interior of British Columbia [RBCM, UBC]. East to Alberta, south to Wyoming and California. New to British Columbia.
- Lasiopogon hinei* Cole and Wilcox. Beringian; dry forests and streambanks of Yukon [CAS, CNC, RBCM, ROM, UBC]. Alaska south and east to northwestern Alberta. New to British Columbia and Yukon.
- Lasiopogon prima* Adisoemarto. Beringian; dry forests and streambanks of northern British Columbia and Yukon [CAS, RBCM, ROM, UBC, UG] Northwest Territories (Cache Creek Springs [UBC]). Alaska south and east to northwestern Alberta. New to British Columbia, Yukon and Northwest Territories.
- Lasiopogon willametti* Cole and Wilcox. Pacific Coast; sand beaches of Vancouver Island and sandbanks and bars of lower Fraser River and delta, southwestern British Columbia [RBCM, UBC]. South to northern California. New to Canada and British Columbia.

Nicocles dives (Loew). Cordilleran; dry forests of the southern Interior of British Columbia [CNC, RBCM, UBC]. Listed in Foxlee (1944). South to California. New to Canada and British Columbia.

Nicocles rufus (Williston). Pacific Coast; Garry Oak/Arbutus/Douglas-fir woods of southern Vancouver Island and Gulf Islands of southwestern British Columbia [CNC, RBCM, UBC]. South to California. New to Canada and British Columbia.

Stichopogon fragilis Back. Intermontane; sandy grasslands of the southern Okanagan Valley (Osoyoos [CNC]). South to New Mexico and Arizona. Species new to Canada; genus new to British Columbia.

Subfamily Laphriinae

Andrenosoma fulvicaudum (Say). Southern; forests of southern Interior of British Columbia [RBCM, UBC]; noted in Foxlee (1941). Transcontinental in the United States; south to the tropics. Genus and species new to British Columbia.

Laphria astur Osten Sacken. Cordilleran; forests of southern British Columbia [CNC, RBCM, UBC]; listed in Foxlee (1941). South to California. New to Canada and British Columbia.

Laphria gilva (Linnaeus). Holarctic (Boreal in North America); widespread in forests of British Columbia, Yukon and Northwest Territories [CNC, RBCM, UBC]. Yukon (Dawson, Whitehorse [CNC]). East to the Atlantic, south to Massachusetts and Oregon. New to Yukon.

Laphria index McAtee. Boreal; forests of British Columbia Interior (Robson [RBCM, UBC]). Transcontinental in Canada; south to Virginia. New to British Columbia.

Laphria insignis (Banks). Boreal; forests of British Columbia Interior [CNC, RBCM, PFC, UBC], north to the southern Yukon and Northwest Territories. Yukon (Dawson, 14 mi [23 km] E [CNC]; Nahanni Range Rd., km 128 [UBC]). Northwest Territories (Norman Wells [CNC]). East to Labrador; in the West, south to California. New to British Columbia, Yukon and Northwest Territories.

Laphria janus McAtee. Boreal; forests of the British Columbia Interior north to Northwest Territories (South Nahanni Rd. [CNC]) and Yukon (Alaska Hwy. km 1403, Judas Creek [ROM]). Transcontinental in the Boreal Forest, south to New York and Michigan in the East, Utah and Colorado in the West. New to Northwest Territories and Yukon.

Laphria milvina Bromley. Cordilleran; forests of British Columbia Interior [CNC, RBCM, UBC] north to the southern Yukon (Rancheria-Swift River [CNC]). South to Oregon. New to Yukon.

Laphria partitor (Banks). Cordilleran; forests of southern Yukon (Slims River delta, Kluane [ROM]) south through British Columbia (CNC, RBCM, UBC) and Washington to Oregon. New to Yukon.

Laphria posticata Say. Boreal; forests of the British Columbia Interior [RBCM, UBC] north to the southern Yukon (Carmacks, Whitehorse [CNC]) and Northwest Territories (Fort Simpson, Fort Smith [CNC]). East to the Atlantic, south to New York in the East and British Columbia in the West. New to British Columbia, Yukon and Northwest Territories.

Laphria sackeni (Banks). Cordilleran; forests of the southern Interior of British Columbia [RBCM, UBC]. South to California. New to Canada and British Columbia.

Laphria ventralis Williston. Pacific Coast; dry forests of southern Vancouver Island and Gulf Islands of southwestern British Columbia [CNC, RBCM, PFC, UBC]. South to California. New to Canada and British Columbia.

Laphria vivax Williston. Cordilleran; forests of the British Columbia Interior north to the southern Yukon (Carcross [UBC]). South to New Mexico. New to Yukon.

Laphria vultur Osten Sacken. Cordilleran; forests of southern British Columbia south of 51 degrees N [RBCM, UBC]; listed in Foxlee (1941). South to California. New to Canada and British Columbia.

Subfamily Asilinae

- Efferia frewingi* Wilcox. Western; grasslands of upper (eastern) parts of Kootenay and Columbia river valleys in British Columbia [CNC, RBCM, UBC]. Described in Wilcox (1966) from Oregon. East to Saskatchewan, south to Utah and California. New to British Columbia.
- Machimus callidus* (Williston). Cordilleran; Widespread in the forests of British Columbia north to the southern Yukon (Whitehorse [CNC], Snafu Creek [UBC]). South to Oregon. New to Yukon.
- Machimus vescus* (Hine). Cordilleran; dry forests of southern Interior of British Columbia (Oliver [UBC]). South to California. New to Canada and British Columbia.
- Megaphorus willistoni* (Cole). Intermontane; grasslands of southern Okanagan and Similkameen valleys (Chopaka [RBCM]). South to California and Arizona. Genus new to Canada and British Columbia.

Two species recorded from British Columbia in the literature are separated here from the main list because their identification is doubtful and specimens could not be located for confirmation. If their identification were confirmed, these species would be new to Canada. *Cyrtopogon rejectus* Osten Sacken, cited under the name *C. positivus*, was reported from Port Renfrew by Hine (1904). A female in the Ohio State Collection identified as this species, apparently by Hine (Hope Mts., 27.vii.1906, R.V. Harvey), is closer to *C. fumipennis* Wilcox and Martin. *Megasilus platyceras* (Hine) was reported from Robson by Foxlee (1941). It was identified as *Asilus platyceras* by Bromley; the specimen cannot be located.

The following 25 species were not recorded in Stone et al. (1965) from the region examined herein, but have subsequently been recorded in the references indicated and, in most cases, through additional collections:

Subfamily Dasypogoninae

- Cophura brevicornis* (Williston). Western; Ponderosa Pine and Douglas-fir forests and less frequently in adjacent grasslands of southern Interior of British Columbia north to the Chilcotin region [CNC, RBCM, UBC]. South and east to Nebraska, Colorado and California. First recorded in Cannings (1989).
- Dicolonus nigricentrum* Adisoemarto and Wood. Intermontane; grasslands of southern Okanagan and Similkameen valleys. South to Washington and Idaho. First recorded in Adisoemarto and Wood (1975). Additional specimens from Osoyoos (Blades and Maier 1992) and Penticton (Cannings 1989) [RBCM].
- Dicolonus simplex* Loew. Pacific Coastal; Garry Oak parkland of southern Vancouver Island and Gulf Islands. South to California. First recorded in Adisoemarto and Wood (1975). Additional specimens [RBCM, UBC, CNC].
- Dioctria henshawi* Johnson. Intermontane; grasslands and dry forests of southern Okanagan and Similkameen valleys. South to California and Utah. First recorded in Adisoemarto and Wood (1975). Additional specimens from Osoyoos (Blades and Maier 1992) [RBCM].
- Dioctria pusio* Osten Sacken. Cordilleran; dry forests and adjacent grasslands of southern Interior of British Columbia. South to Colorado and California. First recorded in Adisoemarto and Wood (1975). Additional specimens from Penticton (Cannings 1989) [RBCM].
- Lasiopogon aldrichii* Melander. Cordilleran; widespread in mountains of southern Interior of British Columbia, especially in Engelmann Spruce/Subalpine Fir forests. South to Colorado and Utah. First recorded in Adisoemarto (1967). Additional specimens [RBCM, UBC].
- Lestomyia sabulona* (Osten Sacken). Intermontane; grasslands of southern Okanagan Valley, British Columbia [CNC, RBCM, UBC]. East to Alberta, south to Wyoming and California. First reported in Adisoemarto (1967). Additional specimens (Cannings 1989) [RBCM, UBC].
- Myelaphus lobicornis* (Osten Sacken). Intermontane; local in southern Interior grasslands of British Columbia, especially where *Chrysothamnus nauseosus* (Pall.) Britt. (Rabbit-brush) is present. South to Utah and California. First recorded in Adisoemarto and Wood (1975).

Additional specimens from Penticton [RBCM, UBC, CNC] and Dutch Creek, Columbia Lake [RBCM] (Cannings 1989).

Nicocles utahensis Banks. Intermontane; dry forests and grasslands of the southern Interior. East to Alberta, south to Utah and California. Cited in Foxlee (1941) as *N. punctipennis* Melander. Recorded by Adisoemarto (1967).

Ospricerus abdominalis (Say). Western; rare in low elevation grasslands of Thompson, Okanagan, and Similkameen valleys of southern British Columbia. East to Manitoba, south to Pennsylvania, Nebraska and Texas. First recorded in Adisoemarto (1967); additional specimens [CNC, RBCM].

Scleropogon bradleyi (Bromley). Pacific Coastal (in the northern part of its range); Garry Oak parklands of southern Vancouver Island and Gulf Islands. South to California. The specimen of *S. helvolus* Loew listed in Hine (1904) should be referred to this species; it is in the Ohio State Collection and was examined during this study. Specimens recorded in Wilcox (1971) from Lytton in the southern Interior of British Columbia are apparently *S. neglectus*. Additional specimens [RBCM, UBC].

Scleropogon neglectus (Bromley). Western; widespread in dry, open forests and grasslands of southern British Columbia and prairie provinces. South to New Mexico and Arizona. First recorded in Wilcox (1971). Additional specimens [RBCM, UBC, CNC].

Stenopogon rufibarbis (Bromley). Intermontane; grasslands, especially mesic ones, in southern British Columbia. Also in grasslands of southern Alberta and Saskatchewan. South to Arizona and California. First recorded in British Columbia by Adisoemarto (1967). Recorded on the Great Plains as *S. obscuriventris* Loew by Adisoemarto (1967) (Wilcox 1971). Additional specimens [CNC, RBCM, UBC, PFC].

Subfamily Laphriinae

Laphria aimatus McAtee. Cordilleran; dry coniferous forests in the southern Interior of British Columbia and the Alberta mountains. First recorded by Adisoemarto (1967). Additional specimens [CNC, RBCM].

Laphria fernaldi (Back). Cordilleran; widespread in the forests of British Columbia and the mountains of western Alberta. First recorded by Adisoemarto (1967). Additional specimens [CNC, RBCM, UBC, PFC].

Pogonosoma ridingsi Cresson. Cordilleran; dry forests of southern British Columbia (including coastal and interior areas) and the southern Rocky Mountains of Alberta. *P. stricklandi* (Adisoemarto) named from Alberta by Adisoemarto (1967) is probably conspecific. Additional specimens [CNC, RBCM, PFC].

Subfamily Asilinae

Dicropaltum mesae (Tucker). Western; widespread in grasslands of southern Interior of British Columbia north to the Chilcotin region. Southern Alberta; cited in Adisoemarto (1967) as *Asilus mesae* (Tucker) and in Martin (1975) in *Negasilus*, this species is here placed in *Dicropaltum* to conform to the proposed treatment of Fisher and Wilcox (1987). Additional specimens [RBCM, UBC]

Efferia albibarbis (Macquart). Southern; xeric grasslands of extreme southern Okanagan Valley, especially where there is sand [CNC, RBCM, UBC]. Only other Canadian localities are on the beaches of Lake Erie, Ontario [RBCM, CNC, UG]. First recorded in Cannings (1989).

Efferia benedicti (Bromley). Intermontane; grasslands of the southern Interior of British Columbia, especially on silty soils. This is the species that Adisoemarto (1967), using the genus *Nerax*, incorrectly called *N. canus* (Hine). In British Columbia first recorded by Cannings (1989). Additional specimens [CNC, RBCM, UBC, PFC, UG]. There is no evidence that the species occurs in Alberta despite its inclusion in Adisoemarto (1967) and Strickland (1946).

Efferia coulei Wilcox. Intermontane; grasslands, especially mesic ones, of the southern Interior of British Columbia north to the Chilcotin region. Described in Wilcox (1966) from Washington. First recorded in Cannings (1989). Additional specimens [CNC, RBCM, UBC, UG].

- Efferia staminea* (Williston). Western; mesic grasslands in southern Interior of British Columbia. First reported in British Columbia by Cannings (1989). Additional records [CNC, RBCM, UBC].
- Machimus erythrocnemius* (Hine). Southern; forests of British Columbia Interior [CNC, RBCM]. First recorded in Adisoemarto (1967). Additional records [RBCM].
- Proctacanthus milbertii* Macquart. Southern; grasslands of southern Interior of British Columbia. First recorded in British Columbia in Cannings (1989). Additional specimens [CNC, RBCM, UBC, PFC].
- Proctacanthus occidentalis* Hine. Intermontane; grasslands of the southern Interior of British Columbia. First recorded by Cannings (1989). Additional specimens [CNC, RBCM, UBC, PFC].
- Rhadiurgus variabilis* (Zetterstedt). Holarctic; Boreal in Canada. Widespread in subalpine forests throughout southern British Columbia and the Rocky Mountains of Alberta. Widespread in the Boreal Forest across Canada from Yukon to Labrador. Treated as *Nigrasilus nitidifacies* Hine in Stone *et al.* (1965); the names were synonymized in Cannings (1993). First reported in British Columbia by Hine (1909) and by Cannings (1993) in Yukon and Northwest Territories.

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