

- Cicadellidae). Pt. IV. Eleven new species of *Empoasca* from the United States. Ohio J. Sci. **36**:225-230.
- Gillette, C.P., 1898. American leafhoppers of the subfamily Typhlocybinae. Proc. U.S. Nat. Mus. **20**:709-773.
- Ross, H. H., 1963. An evolutionary outline of the leafhopper genus *Empoasca* subgenus *Kybos*, with a key to the nearctic fauna (Hemiptera, Cicadellidae). Ann. Entomol. Soc. Amer. **56**:202-223.
- Wagner, W. W., 1955. Neue mitteleuropasichen Zicaden und Blattflohe (Homoptera). Ent. Mitteil. Zool. Staat. Mus. Hamburg **6**:3-33, 163-193.

## ADDITIONAL RECORDS OF SPIDERS (ARANEIDA) AND HARVESTMEN (PHALANGIDA) FOR BRITISH COLUMBIA

P. D. BRAGG AND R. E. LEECH<sup>1</sup>

### ABSTRACT

An annotated list is given of 47 species of spiders and 7 species of harvestmen not previously reported in faunal lists from British Columbia.

Nous présentons ici une liste annotée de 47 espèces d'araignées et 7 espèces de fauchers qui ne se trouve pas dans l'inventaire de la faune de la Colombie Britannique.

### INTRODUCTION

Thorn (1967) recorded 212 species of spiders in British Columbia. The list was compiled from records scattered in the literature and from specimens in the British Columbia Provincial Museum in Victoria. Thorn overlooked two notes by Leech (both 1947) in which there are 13 additional species recorded.

The only harvestmen reported previously for the province are *Homolophus biceps* (Thorell) and *Leiobunum exilipes* (Wood) by Banks (1916), and *Sclerobunus nondimorphicus* Briggs and *Paranonychus brunneus* (Banks) by Briggs (1971).

The purpose of this paper is to present an annotated list of an additional 47 species of spiders and 7 species of harvestmen collected in British Columbia, mostly by the senior author. Harvestmen of the genera *Mitopus* and *Odiellus* also occur (according to Dr. Arlan Edgar, *in litt.*), but due to problems of nomenclature in these genera, they are not included in the list. Most of the specimens were collected in Vancouver. The initials "PDB" used below are those of the senior author. The spiders were identified by Leech, and the phalangids by Bragg.

### ARANEIDA

#### AGELENDAE

*Cryphoeca peckhami* Simon.

Lighthouse Park, West Vancouver, 4 Sept 1966, PDB, on rock face, 1 ♀. U.B.C. Endowment Land Forest, Vancouver, 16 May 1971, PDB, on alder trunk, 1 ♀. New record for British Columbia. Known also from Oregon and Washington.

*Cybaeus conservans* Chamberlin and Ivie.

52 mi N.W. Manson Creek, 3200 ft alt. 30 July 1966, R. E. Leech, 1 ♀. New record for British Columbia. Previously known from Oregon.

*Cybaeus eutyus* Chamberlin and Ivie.

U.B.C. Endowment Land Forest, Vancouver, collected throughout the year as adults, PDB. Roth (1952:212) mentioned one specimen collected near Victoria. Known also from Oregon and Washington.

*Tegenaria agrestis* (Walckenaer).

Vancouver, 26 July 1962, PDB, webs in grass, 1 ♀. 18 Aug 1963, PDB 2 ♂♂. New record for British Columbia. Introduced to North America from Europe (Roth, 1968:5), and now well established in Oregon, Washington, and Idaho.

#### AMAURODIDAE

*Amaurobius borealis* Emerton.

S.E. of Morley River Lodge (59° 57' N,

<sup>1</sup>4610 West 6th Avenue, Vancouver, B.C., and Entomology Research Institute, Canada Agriculture, Ottawa, respectively.

132 01'W), several specimens. This is a widespread boreal species occurring from northern British Columbia to Newfoundland, and south into the northern parts of the United States (Leech, 1972:73).

*Arctobius agelenoides* (Emerton).

Manson Creek, Cassiar District, and Ross Lake, Yoho National Park. Distribution Holarctic, widespread in western Canada and Alaska (Leech, 1972:93).

*Callioplus euoplus* Bishop and Crosby.

Field, Tupper. Boreal, from Newfoundland to western Northwest Territories and British Columbia. Commonly found in leaf litter by pitfall or Berlese funnel methods (Leech, 1972:55).

*Callioplus wabritaskus* Leech.

Emerald Lake, Yoho National Park; 52 mi. N.W. Manson Creek, Cassiar District. Six Mile Lake, Cassiar District. Mainly coastal Alaska, British Columbia and Washington (Leech, 1972:58).

*Callioplus enus* (Chamberlin and Ivie).

Invermere, 8000 ft alt. Nelson, Selkirk Mtns, head of Sawmill Creek W. of Wycliff, 6050 ft alt. Summerland. Known also from Washington, Oregon, Idaho and Montana (Leech, 1972:34).

*Titanoeca niqrella* (Chamberlin).

Many locations in British Columbia (Leech, 1972:96). Widespread in western North America.

*Titanoeca silvicola* Chamberlin and Ivie.

Many locations in British Columbia (Leech, 1972:98). Holarctic. Known from western North America from Alaska south to Arizona and New Mexico.

*Zanomys aquilonia* Leech.

Mudge Island, 9 Aug. 1968, PDB, 1 ♀ with egg sac, under log on ground in mixed woodland. Known also from Oregon and Washington (Leech, 1972:89).

CLUBIONIDAE

*Castianeira longipalpus* (Hentz).

U.B.C. Endowment Land Forest, Vancouver, 24 Aug 1964, PDB, 1 ♂, under rock. Previously known from Vancouver Island (Reiskind, 1969:186). Widespread in North America.

*Clubiona mimula* Chamberlin.

Vancouver, 16 May 1971, PDB, 1 ♀, in house. New record for British Columbia. Known from the western United States (Edwards, 1958:397).

*Clubiona pallidula* (Clerck).

Vancouver and Langley, 2 May 1970 and 23 May, 1971, PDB, 2 ♂♂. New record for British Columbia. This is an introduced European species.

DICTYNIDAE

*Dictyna bostoniensis* Emerton.

Osoyoos, 2 July 1971, PDB, 1 ♀, web on wild rose. New record for British Columbia. Widespread in the United States and southern Canada (Chamberlin and Gertsch, 1958:78).

*Dictyna* sp. aff. *peon* Chamberlin and Gertsch.

Burns Bog, Delta, 6 June 1971, PDB, 1 ♀, in web on *Spiraea* sp. This is probably a new species.

ERIGONIDAE (=MICRYPHANTIDAE)

*Catabrithorax stylifer* Chamberlin.

U.B.C. Endowment Land Forest, Vancouver, 26 Oct 1969, PDB, 3 ♂♂, on low herbage. Widespread in western North America from Alaska to California, east to Idaho and Utah.

*Centromerus sylvaticus* (Blackwall).

Vancouver, 1 Jan 1961, PDB, 1 ♀, woodpile in garden. Widespread, Holarctic. Common in grassy and mossy areas.

*Cheraira willapa* Chamberlin.

U.B.C. Endowment Land Forest, Vancouver, many records from late December to mid April, PDB, in leaf litter. New record for British Columbia. Known previously from northwestern Washington state.

*Cheraira* may be a synonym of *Caledonia*.

*Coreorgonal monoceros* (Simon).

U.B.C. Endowment Land Forest, Vancouver, many records, all male, from early November to late March, PDB, in leaf litter. New record for British Columbia. A winter species, rarely collected previously. Known also from western Washington and Oregon (Bishop and Crosby, 1935:219-220).

*Erigone alettris* Crosby and Bishop.

U.B.C. Endowment Land Forest, Vancouver, 26 Oct 1969, PDB, on low herbage, 2 ♂♂. New record for British Columbia. A coastal species previously known only from the east coast of North America from New York to Maine.

*Erigone* sp. aff. *dentigera* O. Pickard-Cambridge.

Stanley Park, Vancouver, 21 June 1970, PDB, 1 ♂. New record for British Columbia. *E. dentigera* is widespread from New York to Montana. The genus *Erigone* is much in need of revision. The specimen at

hand does not quite match the description of *E. dentigera*, and it is either a clinal variant or a new species.

*Erigone metlakatla* Crosby and Bishop.

U.B.C. Endowment Land Forest, Vancouver, 26 Oct 1969, PDB, 1 ♂, on low herbage. Previously known from Metlakatla, but is probably distributed in the coastal area from Alaska to Oregon.

*Sisicottus montanus* (Emerton).

U.B.C. Endowment Land Forest, Vancouver, many records from late February to late June, PDB, in leaf litter. This species is polymorphic, or else several species are placed under this name. Bishop and Crosby (1938:58-60) have commented on the variation. Assuming only one species is present, it is found widespread in North America from Alaska to Labrador and as far south as Wyoming and New York.

*Wubana pacifica* (Banks).

U.B.C. Endowment Land Forest, Vancouver, 29 Nov 1969, PDB, 1 ♂, in leaf litter. Previously known from Larabee Park, Washington, and Lake Cameron, Vancouver Island. It is also recorded from New York state (Chamberlin and Ivie, 1936:90-91).

GNAPHOSIDAE (=DRASSIDAE)

*Drassyllus depressus* (Emerton).

Langley, 23 May 1971, PDB, 1 ♀, in dry, grassy field. New record for British Columbia. Widespread in North America.

*Micaria pulicaria* (Sundevall)

Burnaby Mtn, 3-14 Aug 1971, R. G. Holmberg, in pitfall traps, 1 ♂ 2 ♀♀. New record for British Columbia. Widespread Holarctic.

LINYPHIIDAE

*Bathyphanes orica* Ivie.

U.B.C. Endowment Land Forest, Vancouver, 12 July 1969, PDB, 1 ♂, 7 Sept 1969, PDB, 1 ♀, in pitfall trap. Ivie (1969) recorded this species from the Pacific coast area from San Francisco to southern British Columbia.

*Drapetisca alteranda* Chamberlin.

U.B.C. Endowment Land Forest, Vancouver. Several records during August and September, PDB, on alder and conifer trunks. New record for British Columbia. Widespread Nearctic from Alaska southeast to central and eastern United States and Canada.

*Lepthyphantes tenuis* (Blackwall).

Haney, 5 June 1965, PDB, 1 ♀, U.B.C.

Endowment Land Forest, Vancouver, February and September, PDB, 2 ♀♀, collected in pitfall traps and on low vegetation. New record for British Columbia. Previously known from Europe.

*Lepthyphantes leprosus* (Ohlert).

Vancouver, 13 Oct 1970, PDB, 1 ♀, in house. Widespread Holarctic.

*Lepthyphantes zebra* Emerton.

U.B.C. Endowment Land Forest, Vancouver, 25 Sept 1965, PDB, 1 ♂. Widespread Nearctic from Alaska to North Carolina. From British Columbia, previously recorded from Aleza Lake and Terrace. (Zorsch, 1937:890).

*Lepthyphantes zelatus* Zorsch.

U.B.C. Endowment Land Forest, Vancouver, many records from November to April, PDB, in leaf litter. New record for British Columbia. Known also from Sol Duc Hot Springs, Olympic National Park, Washington (Zorsch, 1937:895).

*Microlinyphia dana* (Chamberlin and Ivie).

U.B.C. Endowment Land Forest, Vancouver, many records from early June to August. One mating pair collected 29 June 1965, PDB. Helsdingen (1970:50) reported this species from Wellington, Vancouver Island. Known also from Laguna Beach, California, north to Alaska (Chamberlin and Ivie, 1943:25-26; and Chamberlin and Ivie, 1947:61).

*Microneta viaria* (Blackwall).

U.B.C. Endowment Land Forest, Vancouver, 27 Sept 1970, PDB, 1 ♀, in leaf litter. Usually found in detritus and leaf litter. Widespread Holarctic. Apparently a new record for British Columbia.

LYCOSIDAE

*Pardosa altamontis* Chamberlin and Ivie.

U.B.C. Endowment Land Forest, Vancouver, 4 July 1965, PDB, 1 ♀, under log. New record for British Columbia. Known from northwestern United States (Chamberlin and Ivie, 1946:7-8).

*Pardosa diuturna* Fox.

Subalpine meadow, Diamond Head Lodge, Garibaldi Park, 22 Aug 1969, PDB, 1 ♀ and egg sac. New record for British Columbia. Known previously from the Muir Glacier, Alaska (Fox, 1937:114; and Chamberlin and Ivie, 1947:19).

*Pardosa uncata* (Thorell).

Vancouver, Burnaby Mtn, 13 June 1971, J. M. Hardman. Many males and females.

New record for British Columbia. This species has long been confused with *Pardosa mackenziana* and *P. uintana*. Previously known from the montane regions of western North America.

#### PHOLCIDAE

*Pholcus phalangioides* (Feusslin).

Vancouver, 9 Oct 1963, PDB, 1 ♀, in house. Synanthropic. Widespread temperate.

#### TETRAGNATHIDAE

*Tetragnatha caudata* Emerton.

Chilliwack, 1 June 1963, PDB, 1 ♀, on log. New record for British Columbia. Widespread from British Columbia to Maine, south to Florida.

*Tetragnatha straminea* Emerton.

Vancouver, 5 July 1970, PDB, 1 ♀, in web at lakeshore. New record for British Columbia. Distributed approximately as *T. caudata*.

#### THERIDIIDAE

*Robertus vigerens* (Chamberlin and Ivie).

U.B.C. Endowment Land Forest, Vancouver, many records from March to September, PDB, in pitfall traps, leaf litter, etc. Kaston (1946) recorded this species from numerous places in Alaska, British Columbia, Washington, Oregon, California, Idaho, Montana, and Utah. We have also seen specimens from Twin Lakes, Waterton National Park, Alberta, collected on 30 June 1969, by D.R. and G.J. Whitehead (1 ♂, 4 ♀♀).

*Theridion bimaculatum* (Linnaeus).

Burns Bog, Delta, 6 June 1971, PDB, 1 ♂. U.B.C. Endowment Land Forest, Vancouver, 7 Sept 1963, PDB, 1 ♀; and 19 July 1964, PDB, 2 ♀♀ with egg sacs, on low shrubs. Levi (1956: 409-412) recorded this species from Wellington, Vancouver Island. Known also from Washington state. The distribution suggests that this is a species recently introduced from Europe, where it is well known.

*Theridion varians* Hahn.

U.B.C. Endowment Land Forest, Vancouver, 26 Aug 1965, PDB, 1 ♀. Levi (1957:52-53) recorded this species from Vancouver. In North America, also known from Washington state. Again, probably an introduced species.

#### THOMISIDAE

*Ebo pepinensis* Gertsch.

Reported from Vancouver Island and known from western North America as far east as Ontario and Illinois (Sauer and Platnick,

1972:43-44).

*Thanatus patriciae* (Lowrie and Gertsch).

Alpine meadow, Blackwall Mtn, Manning Provincial Park, 3 July 1970, PDB, 1 ♂. New record for British Columbia. Previously known from Colorado, Idaho, Montana, and Wyoming. It is a high altitude species (Dondale, Turnbull and Redner, 1964:654-655).

#### PHALANGIDA

##### ISCHYROPSALIDAE

*Sabacon crassipalpe* (L. Koch).

U.B.C. Endowment Land Forest, Vancouver, June to October, PDB. Collected under logs and in leaf litter by pitfall traps. New record for British Columbia. Widespread Holarctic.

##### NEMASTOMATIDAE

*Nemastoma modesta* Banks.

U.B.C. Endowment Land Forest, Vancouver, immatures found throughout the year, adults from May to August, PDB, commonly collected by pitfall traps in leaf litter. New record for British Columbia. Known also from California and Washington.

##### PHALANGIIDAE

*Phalangium opilio* Linnaeus.

Vancouver, Chilliwack, Vernon, Parksville. Many males and females and immatures found frequently between April and October, PDB. Widespread Holarctic. Probably overwinters as egg. First very small immatures seen in early April. Does not overwinter as adult. First matures seen in June. Eggs deposited from August to September. One female at Parksville laid 195 eggs on September 22, 1967 (PDB).

##### TRIAENONYCHIDAE

*Paranonychus brunneus* (Banks).

U.B.C. Endowment Land Forest, Vancouver, Burnaby. Collected throughout the year, PDB, under logs and in leaf litter. Known from British Columbia, Alaska, Oregon and Washington (Briggs, 1971:13-14). Probably overwinters as adults with eggs hatching in spring.

*Sclerobunus nondimorphicus* Briggs.

10.6 Mi. E. Hope, near Manning Provincial Park, and 17.3 Mi. E. Hope, near Manning Provincial Park (Briggs, 1971:9-10).

##### TROGULIDAE

*Dendrolasma mirabilis* Banks.

U.B.C. Endowment Land Forest, and Stanley Park, Vancouver, several records,

March through September. PDB. A leaf litter species often collected under logs. Known also from Oregon and Washington. *Ortholasma pictipes* Banks.

U.B.C. Endowment Land Forest, Van-

couver, collected throughout the year. PDB. in pitfall traps and in leaf litter. May overwinter as immature. Adults found from March to October. Known also from California.

#### References

- Banks, N., 1916. Report on Arachnida collected by Messrs. Curie, Caudell and Dyar in British Columbia. Bull. U.S. Nat. Mus. **51**:67-72.
- Bishop, S. C., and C. R. Crosby, 1935. Studies in American spiders: miscellaneous genera of Erigoneae, part I. J.N.Y. Entomol. Soc. **18**:217-241; 255-281, 22 pl.
- \_\_\_\_\_, 1938. Studies in American spiders: miscellaneous genera of Erigoneae, part II. idem. **46**:55-107, 7 pl.
- Briggs, T. S., 1971. The harvestmen of family Triaenonychidae in North America (Opiliones). Occas. Pap. Calif. Acad. Sci. **91**:1-43; 128 figs., 5 maps.
- Chamberlin, R. V., and W. J. Gertsch, 1958. The spider family Dictynidae in America north of Mexico. Bull. Amer. Mus. Natur. Hist. **116**(1):1-152, 47 pl.
- Chamberlin, R. V., and W. Ivie, 1936. Nearctic spiders of the genus **Wubana**. Ann. Entomol. Soc. Amer. **29**(1):85-98, 5 pl.
- \_\_\_\_\_, 1943. New genera and species of North American linyphiid spiders. Bull. Univ. Utah Biol. Ser. **7**(6):1-39, 5 pl.
- \_\_\_\_\_, 1946. On several new American spiders. idem. **9**(5):1-11, 14 figs.
- \_\_\_\_\_, 1947. The spiders of Alaska. idem. **10**(3):1-103, 11 pl.
- Dondale, C. D., A. L. Turnbull, and J. H. Redner, 1964. Revision of the Nearctic species of **Thanatus** C. L. Koch (Araneae:Thomisidae). Can. Entomol. **96**(4): 636-656, 59 figs.
- Edwards, R. J., 1958. The spider subfamily Clubioninae of the United States, Canada and Alaska (Araneae:Clubionidae). Bull. Mus. Comp. Zool. **118**(6): 365-436, 23 pl.
- Fox, L., 1937. Notes on North American lycosid spiders. Proc. Entomol. Soc. Wash. **39**(5): 112-115, 3 figs.
- Helsdingen, P. J. van, 1970. A reclassification of the species of **Linphyia** based on the functioning of the genitalia (Araneida **Linphiidae**), II. Zool. Verhandl. III:1-86.
- Ivie, W., 1969. North American spiders of the genus **Bathyphantes** (Araneae, Linyphiidae). Amer. Mus. Novitates **2364**:1-70, 121 figs.
- Kaston, B. J., 1946. North American spiders of the genus **Ctenium**. Amer. Mus. Novitates **1306**:1-19, 58 figs.
- Leech, H. B., 1947. A list of twenty species of spiders collected at Salmon Arm, B.C. Proc. Entomol. Soc. Brit. Columbia (1946) **43**:22.
- \_\_\_\_\_, 1947. A few records of spiders from British Columbia and Alberta. idem. (1946) **43**:22.
- Leech, R., 1972. A revision of the Nearctic Amaurobiidae (Arachnida:Araneida). Mem. Entomol. Soc. Can. **84**:182 pp, 450 figs.
- Levi, H. W., 1956. The spider genera **Neottiura** and **Anelosimus** in America (Araneae:Theridiidae). Trans. Amer. Microsc. Soc. **75**(4):407-422, 3 pl.
- \_\_\_\_\_, 1957. The spider genera **Enoplognatha**, **Theridion**, and **Paidisca** in America north of Mexico (Araneae, Theridiidae). Bull. Amer. Mus. Natur. Hist. **112**(1):1-123, 421 figs, 41 maps.
- Reiskind, J., 1969. The spider subfamily Castianeirinae of North and Central America (Araneae, Clubionidae). Bull. Mus. Comp. Zool. **138**(5):163-325, 290 figs.
- Roth, V. D., 1952. The genus **Cybaeus** (Arachnida:Agelenidae) in Oregon. Ann. Entomol. Soc. Amer. **45**(2):205-219, 33 figs.
- \_\_\_\_\_, 1968. The spider genus **Tegenaria** in the western Hemisphere (Agelenidae). Amer. Mus. Novitates **2323**:1-33, 39 figs.
- Sauer, R. J., and N. I. Platnick, 1972. The crab spider genus **Ebo** (Araneida:Thomisidae) in the United States and Canada. Can. Entomol. **104**(1):35-60, 45 figs., 2 maps.
- Thorn, E., 1967. Preliminary distributional list of the spiders of British Columbia. Brit. Columbia Prov. Mus. Natur. Hist. Anthrop. Rep. **1966** (1967):23-39 (reprint, pp. 1-17).
- Zorsch, H. E., 1937. The spider genus **Lepthyphantes** in the United States. Amer. Midland Natur. **18**(5):856-898, 93 figs.