

RECORD OF BEES FROM BRITISH COLUMBIA (Andrenidae)¹

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This list of 56 bees of the family Andrenidae has been compiled from a collection in the Field Crop Insect Laboratory, Kamloops, and material loaned by Professor G. J. Spencer of the University of British Columbia.

The Andrenidae, or acute-tongued burrowing bees, are solitary, constructing their burrows and cells in the ground. Although solitary, some species congregate in regular colonies. Sometimes a clay or silt cliff will contain innumerable burrows in close proximity. Their cells are stocked with nectar and pollen and these bees are beneficial plant pollinators. Willow blossoms are particularly attractive to Andrenidae, and a majority of the specimens collected in April and May by the author were taken visiting willow.

The names are arranged alphabetically and the collection points are listed, numbered, and placed on the accompanying map. Some localities have been heavily collected, while other areas, particularly in northern British Columbia, have had little or no attention, and the distribution record therefore, is far from complete.

The collectors are designated by initials only in the text, but a list of their names is included at the end of the paper.

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Family ANDRENIDAE
Subfamily ANDRENINAE
Genus **ANDRENA** Fabricius

Andrena albihirta (Ashmead)

KASLO, April 7, 1907, 1♂; April 13, 1913, 1♂ (L.W.C.). PENTICTON, April 12, 2♀, 21, 1♂ 1♀, 30, 1♂, 1919; April 9, 6♂, 24, 18♀, 1929 (E.R.B.). VERNON, April 17, 1930, 2♀,

April 5, 1939 1♀ (E.R.B.); April 9, 1925, 1♀ (M.H.R.). MINNIE LAKE, May 19, 1943, 1♀ (E.R.B.). CHILCOTIN, May 4, 1921, 1♂ (E.R.B.). VANCOUVER, March 22, 1♂, April 4, 1♂, 1903; March 25, 1906, 1♂ (R.C.T.).

Andrena amplificata Cockerell

PENTICTON, May 2, 1919, 1♀; April 24, 1929, 1♀ (E.R.B.); April 8, 1920, 1♀ (M.H.R.). KELOWNA, April 8, 1930, 1♂ (E.R.B.). VERNON, April 29, 1930, 3♀ (E.R.B.); April 20, 1920, 1♀ (R.C.T.). MINNIE LAKE, May 19, 1943, 2♀ (E.R.B.). DOUGLAS LAKE, April 23, 1930, 4♀ (E.R.B.). CHILCOTIN, June 15, 1920, 2♀; May 15, 1921, 1♀; May 28, 1929, 2♀ (E.R.B.).

Andrena bella Viereck

KASLO, April 16, 1907, 1♀ (L.W.C.).

Andrena binarea Viereck

VERNON, May 19, 1928, 1♀ (P.N.V.).

Andrena buckelli Viereck

PENTICTON, May 5, 1920, 1♂ (M.H.R.); April 24, 1929, 1♀ (E.R.B.). VERNON, May 1, 1929, 1♀; April 25, 1932, 1♀ (E.R.B.). KAMLOOPS, April 18, 1929, 1♀ (E.R.B.).

Andrena candida Smith

PENTICTON, April 9, 1♂; 24, 2♀, 1929 (E.R.B.). KAMLOOPS, April 18, 1929, 2♀ (E.R.B.).

Andrena chlosura Cockerell

NANAIMO, May 11, 1930, 1♀ (G.J.S.).

Andrena cleodora (Viereck)

KASLO, June 10, 1906, 1♀ (L.W.C.). PENTICTON, June 5, 1920, 1♀ (M.H.R.).

Andrena colletina Cockerell

CHILCOTIN, April 16, 1921, 2♀ (E.R.B.).

Andrena crataegi Robertson

PENTICTON, May 9, 1919, 1♀ (E.R.B.). VERNON, June 5, 1923, 2♀ (M.H.R.); May 16, 1927, 1♀ (D.G.G.); May 31, 1929, 1♂; April 29, 1930, 1♀ (E.R.B.). SALMON ARM, May 1, 1922, 2♂; July 4, 1943, 1♀ (E.R.B.).

Andrena cressonii Robertson, subsp.

VERNON, May 20, 1904, 1♂; May 16, 1920, 1♀ (E.P.V.); April 22, 1929, 1♂ (I.J.W.); May 1, 1929, 1♂ (E.R.B.). SALMON ARM, July 4, 1943, 6♀ (E.R.B.). VANCOUVER, May 23, 1930, 1♀ (H.B.L.).

Andrena epileuca Cockerell

KASLO, May 22, 1910, 1♀ (L.W.C.). CRESTON, May 17, 1926, 1♀ (A.A.D.). VERNON, June 1, 1913, 1♀ (E.P.V.). KAMLOOPS, June 13, 1943, 1♀ (E.R.B.). VANCOUVER, June 3, 1943, 1♀ (E.R.B.).

Andrena errans Smith

OLIVER, May 4, 1943, 1♀ (E.R.B.). PENTICTON, April 30, 1♀; Oct. 30, 1♀, 1920 (E.R.B.). VASEAUX LAKE, June 14, 1919, 1♀ (E.R.B.). NARAMATA, May 2, 1920, 1♂ (M.H.R.). VERNON, April 25, 1932, 1♂ (E.R.B.). SALMON ARM, May 14, 1929, 1♀ (H.B.L.). KAMLOOPS, June 13, 1943, 1♀ (E.R.B.). MINNIE LAKE, June 19, 1930, 1♀;

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May 19, 1943, 1♂ 1♀ (E.R.B.). CHILCOTIN, June 13, 1921, 3♀; May 28, 1♂ 6♀; June 14, 1♀, 1929; June 5, 1♂ 3♀, June 14, 1♀, 1930; April 28, 1944, 1♀ (E.R.B.). YALE, May 30, 1943, 1♀ (E.R.B.). MILNER, May 25, 1930, 1♀ (K.G.). VANCOUVER, May 22, 1930, 1♀ (G.J.S.); May 23, 1930, 1♀ (H.B.L.); June 3, 1943, 1♀ (E.R.B.). LADYSMITH, June 18, 1♀; June 30, 1♀, 1930 (G.C.C.).

Andrena erythrogaster (Ashmead)

CHILCOTIN, May 27, 1929, 8♀; May 3, 1930, 1♀ (E.R.B.). VERNON, April 18, 1929, 1♂ (I.J.W.).

Andrena extensa Viereck

VERNON, May 9, 1930, 2♀ (E.R.B.).

Andrena flavoclypeata Smith

VERNON, April 18, 1923, 1♂ (M.H.R.).

Andrena forbesii Robertson

KASLO, May 2, 1906, 1♂ (L.W.C.). KELOWNA, May 28, 1921, 1♀ (M.H.R.), VERNON, May 1, 1♂; June 4, 1♀, 1929 (E.R.B.).

Andrena sp. near fulvinigra Viereck

& Cockerell

OKANAGAN FALLS, April 24, 1920, 1♀ (M.H.R.). PENTICTON, April 24, 1929, 1♀ (E.R.B.).

Andrena gibbiris (Viereck)

PENTICTON, April 11, 1919, 1♀; April 24, 1929, 1♀ (E.R.B.). KAMLOOPS, April 17, 1943, 1♀ (E.R.B.). CHILCOTIN, May 27, 1929, 1♀ (E.R.B.).

Andrena grandior Cockerell

CHILCOTIN, June 14, 1929, 1♀ (E.R.B.).

Andrena harveyi Viereck

VICTORIA, June 14, 1917, 1♀.

Andrena indecisa Cockerell

CRANBROOK, Aug. 15, 1928, 1♂ 3♀ (A.A.D.). INVERMERE, July 18, 1928, 1♀ (A.A.D.).

Andrena medionitens Cockerell

CHILCOTIN, June 13, 1929, 1♀ (E.R.B.).

Andrena melanochroa Cockerell

SALMON ARM, April 19, 1919, 1♂ (W.R.B.).

Andrena microchlora subalia Cockerell

OLIVER, May 4, 1943, 1♀ (E.R.B.). VERNON, April 26, 1920, 2♀ (R.C.T.); April 6, 1925, 1♀ (M.H.R.).

Andrena milwaukeensis Green

PENTICTON, May 9, 1919, 3♀ (E.R.B.).

Andrena miranda Smith

KASLO, May 14, 1906, 1♀ (L.W.C.). VERNON, May 1, 1929, 19♀ (E.R.B.); May 3, 1907, 1♀; May 6, 1913, 1♀ (E.P.V.); May 5, 1921, 1♀ (M.H.R.).

Andrena montrosensis Viereck & Cockerell

OKANAGAN FALLS, June 3, 1919, 1♀ (E.R.B.). PENTICTON, April 6, 1♀; May 15, 1♂; June 4, 1♀; June 5, 1♂, 1919 (E.R.B.). SUMMERLAND, June 4, 1919, 1♀ (E.R.B.). VERNON, May 1, 1908, 1♀ (E.P.V.); May 1, 1929, 1♂; May 9, 5♀; May 25, 1♀, 1930; May 17, 1937, 1♀ (E.R.B.). KAMLOOPS, June 13, 1943, 1♂ 7♀ (G.J.S.). CHILCOTIN, May 28, 1921, 1♀; June 13, 1929, 5♀ (E.R.B.). AGASSIZ, Sept. 11, 1925, 1♂ (G.J.S.).

Andrena nivalis Smith

KASLO, May 28, 1♂ 1♀; June 2, 1♀, 3, 1♀; July 17, 1♀, 1906 (W.L.C.). SAANICH, June 25, 1917, 2♀ (W.D.).

Andrena nubicula Smith

VERNON, Aug. 14, 1942, 1♀ (E.R.B.).

Andrena pallidifovea Viereck

VERNON, May 3, 1♂, July 20, 1♂, 1912 (E.P.V.). YALE, May 30, 1943, 1♀ (E.R.B.).

Andrena perarmata Cockerell

PENTICTON, April 24, 1929, 7♀ (E.R.B.). VERNON, March 31, 1930, 2♂ (E.R.B.).

Andrena placida Smith

KASLO, May 15, 1910, 1♀ (L.W.C.). OSOYOOS, May 8, 1928, 1♀ (E.R.B.). PENTICTON, April 11, 1919, 1♀ (E.R.B.). VERNON, May 3, 1907, 1♀; May 1, 1913, 1♀ (E.P.V.); April 22, 1929, 1♀ (I.J.W.); May 31, 1929, 1♀ (E.R.B.). CHILCOTIN, May 15, 1921, 1♀; May 24, 1929 (E.R.B.).

Andrena sp. near politissima Cockerell

PENTICTON, April 6-21, 1919, 4♂ 2♀ (E.R.B.). KELOWNA, April 8, 1930, 2♂ (E.R.B.). VERNON, April 17, 1929, 1♂ (I.J.W.); April 17, 1930, 1♀ (E.R.B.); April 13, 1907, 4♀ (E.P.V.). KAMLOOPS, April 18, 1929, 3♂ 2♀; April 17, 1943, 1♂ 1♀ (E.R.B.). NICOLA, May 3, 1943, 1♂ 2♀ (E.R.B.). MINNIE LAKE, May 19, 1943, 1♂ 1♀ (E.R.B.). CHILCOTIN, June 18, 1921, 1♀; May 27, 2♀; May 28, 1♀, 1929 (E.R.B.).

Andrena prunorum kincaidii Cockerell

KASLO, May 24, 1905, 1♂; June 5, 1♀, 10, 1♀, 30, 1♂, 1906 (L.W.C.). CRANBROOK, May 12, 1926, 1♀ (A.A.D.). OSOYOOS, May 8, 1928, 1♀ (E.R.B.). OLIVER, April 25, 2♂; May 4, 1♂, 1919 (E.R.B.). PENTICTON, April 11, 1♂, 17, 1♂; May 5, 1♂, 1919; April 24, 1929, 1♀ (E.R.B.). VERNON, June 15, 1918, 1♀, May 14, 1♂, June 6, 1♂, 1921; July 6, 1922, 1♀ (D.G.G.); May 31, 2♂ 1♀; June 4, 3♂ 1♀, 1929; April 29, 1♀; May 9, 8♂, 1930 (E.R.B.). SALMON ARM, July 4, 1943, 3♀ (E.R.B.). KAMLOOPS, July 23, 1939, 1♂ (G.J.S.); April 17, 1943, 1♀ (E.R.B.). NICOLA, May 2, 1943, 1♂ (E.R.B.). WALHACHIN, July 10, 1♀, 16, 3♀, 23, 1♀, 1918 (E.R.B.). CHILCOTIN, April 16, 1921, 1♂; June 13, 1929, 1♀ (E.R.B.). AGASSIZ, June 6, 1939, 1♂ (A.B.D.). VANCOUVER, May 23, 1930, 1♀ (H.B.L.). VICTORIA, June 8, 1916, 1♀; June 17, 1917, 1♀ (R.C.T.); April 8, 1916, 1♀ (H.H.). SAANICH, June 15, 1917, 1♀ (W.D.).

Andrena pyrrhacita Cockerell

PENTICTON, April 4, 1♀, 8, 1♀, 12, 3♀, 1919 (E.R.B.). KAMLOOPS, April 17, 1943, 5♀ (E.R.B.). NICOLA, May 3, 1943, 4♀ (E.R.B.). CHILCOTIN, May 4, 1♀, 9, 3♀, 1921; May 27, 1929, 1♀ (E.R.B.).

Andrena regularis Cockerell

YALE, May 30, 1943, 1♀ (E.R.B.).

Andrena runcinatae Cockerell

KASLO, Aug. 19, 1906, 1♂ (L.W.C.). INVERMERE, July 18, 1928, 1♀ (A.A.D.).

***Andrena saccata* Viereck**

KASLO, May 4, 1905, 1♀; May 6, 1♀, 10, 1♀, 30, 1♀; June 3, 1♀, 1906 (L.W.C.). PENTICTON, May 9, 1919, 1♀ (E.R.B.). CHILCOTIN, June 13, 1929, 1♀ (E.R.B.).

***Andrena salicifloris* Cockerell**

KASLO, May 18, 1905, 1♂; May 5, 1908, 1♂; May 1, 1910, 1♂ (L.W.C.). VERNON, April 13, 1907 (E.P.V.); April 24, 1929, 1♀; April 17, 1930, 3♂ 2♀ (E.R.B.). SALMON ARM, April 26, 1943, 1♂ (E.R.B.).

***Andrena salictaria* Robertson**

VERNON, April 4, 1904, 1♀ (E.P.V.); April 22, 1929, 1♀ (I.J.W.). DOUGLAS LAKE, April 23, 1930, 1♀ (E.R.B.).

***Andrena seneciophila* Cockerell**

VERNON, May 20, 1904, 1♀ (E.P.V.); May 4, 1♀, 31, 1♀, 1929 (E.R.B.). SALMON ARM, May 26, 1943, 1♀ (E.R.B.). CHILCOTIN, May 28, 1921, 1♀; May 28, 1929, 1♀ (E.R.B.).

***Andrena sladeni* Viereck**

PENTICTON, April 24, 1929, 3♀ (E.R.B.). VERNON, May 9, 1930, 2♀; May 17, 1937, 1♀ (E.R.B.).

***Andrena sola* Viereck**

PENTICTON, April 24, 1929, 1♀ (E.R.B.).

***Andrena striatifrons* Cockerell**

FAIRVIEW, May 4, 1919, 1♀ (E.R.B.). PENTICTON, April 7, 1♂, 17, 1♀, 21, 3♂, 23, 1♀; April 24, 1929, 1♀ (E.R.B.). KELOWNA, April 8, 1930, 1♂ (E.R.B.). VERNON, April 14, 1907, 1♂ (E.P.V.); April 17, 1929, 1♂ 1♀ (I.J.W.); April 17, 1930, 4♀ (E.R.B.). KAMLOOPS, April 18, 1929, 3♂ 2♀; April 17, 1943, 4♂ (E.R.B.). NICOLA, May 3, 1943, 2♂ 4♀ (E.R.B.). MINNIE LAKE, May 19, 1943, 1♂ 4♀ (E.R.B.). CHILCOTIN, May 9, 2♀, 13, 7♀, 1921; May 27, 1929, 3♀ (E.R.B.).

***Andrena subaustralis* Cockerell**

KAMLOOPS, April 17, 1943, 1♀ (E.R.B.).

***Andrena subtilis* Smith**

KASLO, May 6, 1910, 1♂ (L.W.C.). OLIVER, May 4, 1943, 3♂ 4♀ (E.R.B.). FAIRVIEW, May 18, 5♀, 19, 1♀, 1919 (E.R.B.); April 20, 1♀; May 18, 5♀, 1920 (M.H.R.). OKANAGAN FALLS, May 13, 1920, 1♀ (M.H.R.). KELOWNA, May 28, 1921, 2♀ (M.H.R.). PENTICTON, April 24, 1929, 1♂ (E.R.B.). VERNON, April 22, 1904, 1♂; 15, 1906, 3♂; May 3, 1907, 3♂; May 27, 1913, 2♂ (E.P.V.); April 26, 2♀; May 1, 1♂, 1920 (R.C.T.); April 14, 1921, 1♂; May 7, 1921, 1♂ (M.H.R.); April 18, 1♂, 22, 3♂, 24, 1♀ (I.J.W.); May 31, 3♀; June 4, 1♀, 1929 (E.R.B.). KAMLOOPS, June 13, 1943, 4♀ (G.J.S.). NICOLA, May 2, 1943, 2♀ (E.R.B.). LYTTON, May 30, 1943, 1♀ (E.R.B.). 100 MILE HOUSE, June 14, 1943, 1♀ (E.R.B.). VANCOUVER, June 3, 1943, 1♀ (E.R.B.).

***Andrena surda* Cockerell**

INVERMERE, July 29, 1926, 1♀ (A.A.D.). OLIVER, July 10, 1929, 1♀ (E.R.B.).

***Andrena swenki* Viereck & Cockerell**

VERNON, May 1, 1920, 1♀ (M.H.R.). CHILCOTIN, May 15, 1921, 1♀; June 13, 1929, 1♀ (E.R.B.).

***Andrena transnigra* Viereck**

KASLO, June 5, 1906, 1♀ (L.W.C.). OLIVER, May 4, 1943, 1♀ (E.R.B.). KAMLOOPS, June 13, 1937, 1♀ (G.J.S.). MINNIE LAKE, May 19, 1943, 1♀ (E.R.B.). SALMON ARM, May 17, 1914, 1♀; April 11, 1915, 1♀ (W.R.B.). CHILCOTIN, June 13, 1921, 2♀; May 28, 1929, 4♀; June 5, 1930, 1♀ (E.R.B.).

***Andrena trevoris* Cockerell**

DEPARTURE BAY, June 9, 1♂, 24, 1♂, 1925 (G.J.S.). NEWCASTLE IS., NANAIMO, June 1925, 1♂ (G.J.S.).

***Andrena vicina* Smith**

KASLO, May 14, 1906, 1♂ (L.W.C.). FAIRVIEW, May 18, 1919, 3♀ (E.R.B.); May 19, 1920, 1♀ (M.H.R.). PENTICTON, April 6, 1919, 1♀ (E.R.B.); April 30, 1♂ 1♀; May 10, 1♂, 1920 (M.H.R.). KELOWNA, May 28, 1921, 1♀ (M.H.R.). VERNON, May 20, 1904, 1♀ (E.P.V.); June 14, 1921, 2♀; May 20, 1924, 1♀; May 1, 1925, 1♀ (M.H.R.); May 10, 1927, 1♂ (D.G.G.); May 31, 1929, 5♀ (E.R.B.). LYTTON, May 30, 1943, 15♀ (E.R.B.). SALMON ARM, May 3, 1♀, 14, 1♀, 1914 (W.R.B.). CHILCOTIN, May 24, 1929, 1♀ (E.R.B.). VANCOUVER, May 22, 1930, 6♀ (G.J.S.).

***Andrena walleyi* Cockerell**

VERNON, May 12, 1920, 1♀ (M.H.R.). KAMLOOPS, June 13, 1943, 1♀ (G.J.S.). CHILCOTIN, June 13, 1929, 1♀ (E.R.B.).

***Andrena washingtoni* Cockerell, var.**

KASLO, June 2, 1905, 1♀; May 17, 1906, 1♀ (L.W.C.). CHILCOTIN, May 28, 1♀; June 13, 1♀, 14, 1♀, 1929 (E.R.B.). ALEXIS CREEK, June 30, 1943, 1♀ (E.R.B.).

Genus **DIANDRENA** Cockerell***Diandrena nothoealaidis* Cockerell**

OLIVER, May 4, 1943, 1♀ (E.R.B.).

Genus **PARANDRENA** Robertson***Parandrena triangularis* (Viereck)**

KAMLOOPS, April 18, 1929, 1♀ (E.R.B.). NICOLA, May 2, 1943, 1♂ (E.R.B.).

LIST OF COLLECTORS

Mentioned by initials in the text.

- A.A.D.—Dennys, A. A.
- A.B.D.—Dickson, A. B.
- E.P.V.—Venables, E. P.
- E.R.B.—Buckell, E. R.
- D.G.G.—Gillespie, D. G.
- G.C.C.—Carl, G. C.
- G.J.S.—Spencer, G. J.
- H.B.L.—Leech, H. B.
- I.J.W.—Ward, I. J.
- K.G.—Graham, K.
- L.W.C.—Cockle, L. W.
- M.H.R.—Ruhmann, M. H.
- P.N.V.—Vroom, P. N.
- R.C.T.—Treherne, R. C.
- W.D.—Downes, W.
- W.R.B.—Buckell, W. R.



LIST OF LOCALITIES

Arranged alphabetically: the numbers corresponding to those on the accompanying map (V.I.: Vancouver Island).

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|------------------------|-------------------|-------------------------|-----------------|
| 1. Agassiz | 10. Invermere | 19. Naramata | 28. Summerland |
| 2. Alexis Creek | 11. Kamloops | 20. Newcastle Is., V.I. | 29. Vancouver |
| 3. Chilcotin | 12. Kaslo | 21. Nicola | 30. Vaseux Lake |
| 4. Cranbrook | 13. Kelowna | 22. Okanagan Falls | 31. Vernon |
| 5. Creston | 14. Ladysmith | 23. Oliver | 32. Victoria |
| 6. Departure Bay, V.I. | 15. Lytton | 24. Osoyoos | 33. Walhachin |
| 7. Douglas Lake | 16. Milner | 25. Penticton | 34. Yale |
| 8. Fairview | 17. Minnie Lake | 26. Saanich, V.I. | |
| 9. 100 Mile House | 18. Nanaimo, V.I. | 27. Salmon Arm | |

A FURTHER NOTE ON THE WHARF BORER, *NACERDA MELANURA* (L.) (Coleoptera: Oedemeridae).—In the Proceedings of our Society, Vol. 43, 1947, I recorded an unusual occurrence of *Nacerda melanura* (L.) in long-buried piling at Vancouver. At the time of investigating this infestation, in October, 1945, I saved a few pieces of riddled wood, apparently still infested, from the buried piles and placed them in a glass battery jar in my laboratory with coarse gravel all around them and wetted the whole mass with tap water so as to make it uniformly damp. The culture was examined in the autumn of 1946 and again in 1947 and, when fresh boring by a larva was noted, the wood was buried again in the damp gravel.

On March 10, 1948, the culture was examined again and one or two pieces of wood were broken open. In one of them occurred a fairly large tunnel containing an apparently healthy, full-grown larva and alongside of it, a female beetle which had died in the tunnel and was somewhat soft but intact enough to be successfully mounted on a card. The wood was reburied and will be examined again at intervals to see if the larva has transformed. Even under the harsh conditions of being removed from piling surround by brackish water and then buried in sand moistened with fresh water, one larva at least survived and completed its development, two years and five months after being first disturbed.—G. J. Spencer, Department of Zoology, University of British Columbia, Vancouver, B.C.