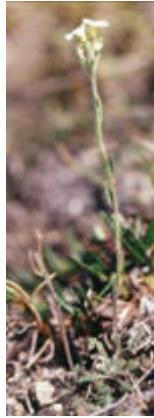




*B. humilis* sens. lat. photos by Linda Kershaw



*B. humilis* ssp. *humilis*



**LOW BRAYA**

*Braya humilis* (C.A. Mey.) B. L. Robins.

**MUSTARD FAMILY (BRASSICACEAE)**

**Plants:** Small, **perennial** herbs (2-)10-20(-37) cm tall, hairless to coarsely hairy; stems loosely clumped, sparsely hairy, from a stout, branched base and taproot.

**Leaves:** Alternate, **basal rosette leaves thinner than stem leaves**, narrowly lance-shaped, widest near the tip, 1-3 cm long, sparsely hairy with simple or 2- to 4-pronged hairs, **smooth-edged or with a few small teeth** near the tip.

**Flowers:** **White or purple-tinged**, with **petalled**, borne on upright, 3-6 mm long stalks in compact clusters that elongate to 4-10 cm long (racemes) when mature; **petals 3-4 mm long**, oblong to egg-shaped and widest above the middle; sepals somewhat hooded; stamens 4 long and 2 short, with u-shaped glands at the base, flat filaments and heart-shaped anthers; July-August.

**Fruits:** Slender **pods (siliques)**, **10-30 mm long, 1 mm wide, cylindrical and constricted between seeds** (torulose), minutely hairy (at least when young), splitting lengthwise; central membrane (septum) composed of peculiar, characteristic, transversely or obliquely elongated cells; seeds numerous, wedge-shaped, in a single row

**Habitat:** Limestone gravels, cliffs and ledges, in alpine zones and disturbed sites (e.g. roadsides).

**Status:** S1; G5

**Notes:** This species has also been called *B. novae-angliae* (Rydb.) Sorensen, *B. richardsonii* Rydb., *B. intermedia* Sorensen, and *Torulularia humilis* (C.A. Mey.) O.E. Schulz, *Neotorularia humilis* (C.A. Mey.) Hedge & J. Léonard, low northern-rockcress, northern rock-cress, alpine braya. • The genus *Braya* was named in honour of Franz Gabriel, Count de Bray (1765-1832) of Rouen. • Current status is Global G5; United States NNR (Colorado S2, Michigan S1, Montana S1, Vermont S1, Wyoming S1) and Canada N5 (Alberta S1, British Columbia S3S4, Manitoba S2, Newfoundland Island S1S2, Northwest Territories SNR, Nunavut SNR, Ontario S5, Quebec S2, Yukon Territory S4). • *Braya* could be confused with a small *Arabis*, but *Braya* pods are cylindrical and constricted between seeds, whereas *Arabis* pods are not. • *B. humilis* is an extremely variable species, with a broad range in North American arctic, subarctic and montane regions. Much of this variability is the result of polyploidy and inbreeding in isolated populations. Most forms are included in the type subspecies, ssp. *humilis*. However, three distinctive subspecies have recently been described, all of which are found in glacial refugia believed to be ice-free during Pleistocene glaciation. Three subspecies, ssp. *humilis*, ssp. *maccallae* J. G. Harris and ssp. *persildii* J. G. Harris, are found in Alberta, and all three are classified as S1 species. Subspecies *humilis* is autogamous, is usually hexaploid or octaploid ( a few decaploid and tetraploid populations are known), has small flowers, good seed set and a broad distribution, whereas ssp. *maccallae* and ssp. *persildii* are almost completely allogamous, are tetraploid, have flowers that are almost twice as large as those of ssp. *humilis*, and have reduced fruit maturation and seed set.

*Braya humilis* subspecies are distinguished using the following key.

- 1a. Siliques 1.2-1.8 mm wide, not torulose; stems simple, prostrate in fruit . . . . . **subspecies *ellesmerensis***
- 1b. Siliques 0.6-1.2(-1.3) mm wide, usually somewhat torulose; stems simple or branched, ascending to erect in fruit . . . . . **2**
- 2a. Petals usually less than 5 mm long; flowers usually developing fertile fruits; leaves entire, seldom dentate or pinnatifid . . . . . **subspecies *humilis***
- 2b. Petals usually more than 5 mm long; flowers usually developing abortive fruits; leaves often dentate or pinnatifid . . . . . **3**
- 3a. Leaves and stems glabrescent of moderately pubescent . . . . . **subspecies *maccallae***
- 3b. Leaves and stems densely pubescent . . . . . **subspecies *porsildii***

(Harris 2006)

Subspecies *ellesmerensis* is endemic to sand, clay and gravel slopes and plains in northern Ellesmere Island.

Subspecies *humilis* grows on calcareous sandy, gravelly banks, shores, roadsides, moraines, and solifluction lobes from Colorado to Alaska, east to Great Bear Lake, Ellesmere Island and Greenland; also on Hudson Bay and the north shore of Lake Superior, Anticosti Island and in Newfoundland and Vermont. In Alberta, it is limited to the Rockies, where it is quite common in appropriate habitats.

Subspecies *maccallae* is endemic to sandy, gravelly riverbanks, flood plains and glacial moraines in the Rocky Mountains of southern Alberta and British Columbia. Its name honours the botanist, W. C. McCalla.

Subspecies *porsildii* grows on calcareous alpine scree slopes, glacial moraines and gravelbars from the southern Alberta-B.C. Rocky Mountains north to about 65° north latitude in the Mackenzie Mountains of the N.W.T. Its name honours botanist, A. E. Porsild.

*B. humilis* ssp. *humilis* map and line drawings from:

Harris, J. G. (1985). A revision of the genus *Braya* (Cruciferae) in North America. Botany. Edmonton, Alberta, University of Alberta. **PhD**.

Harris, J. G. (2006). "Five new subspecies of *Braya* (Brassicaceae) from Canada." Novon **16**(3): 344-353.

**B. HUMILIS**  
**SSP. MACCALLAE**



**B. HUMILIS**  
**SSP. PORSILDII**

