

Global Distribution: Siberia, Russian Far East, and ca. 1,500 km disjunct in northwestern North America.⁶¹

Alaska Distribution: Arctic Tundra.

Ecoregions Occupied: Beaufort Coastal Plain, Brooks Foothills, Brooks Range (not known from Northwest Alaska).

Conservation Status: S2 G3G4; BLM Watch.



Description⁶²

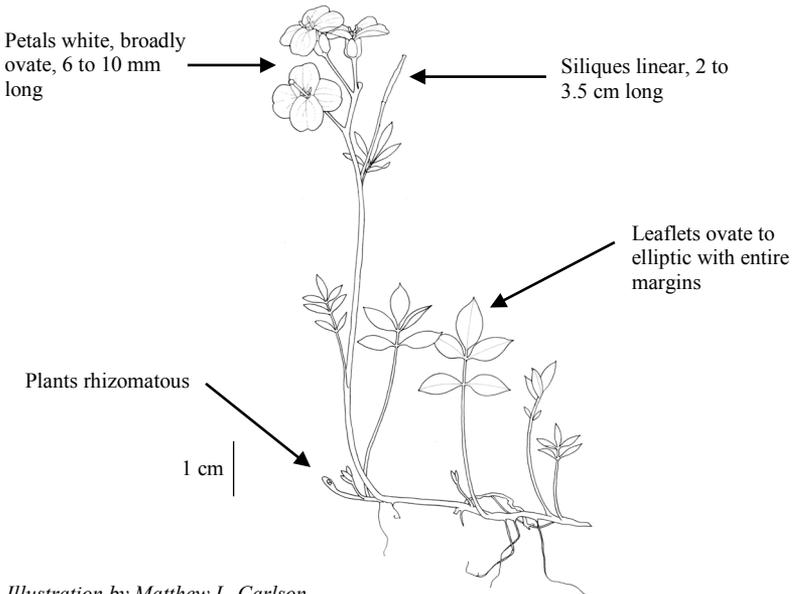
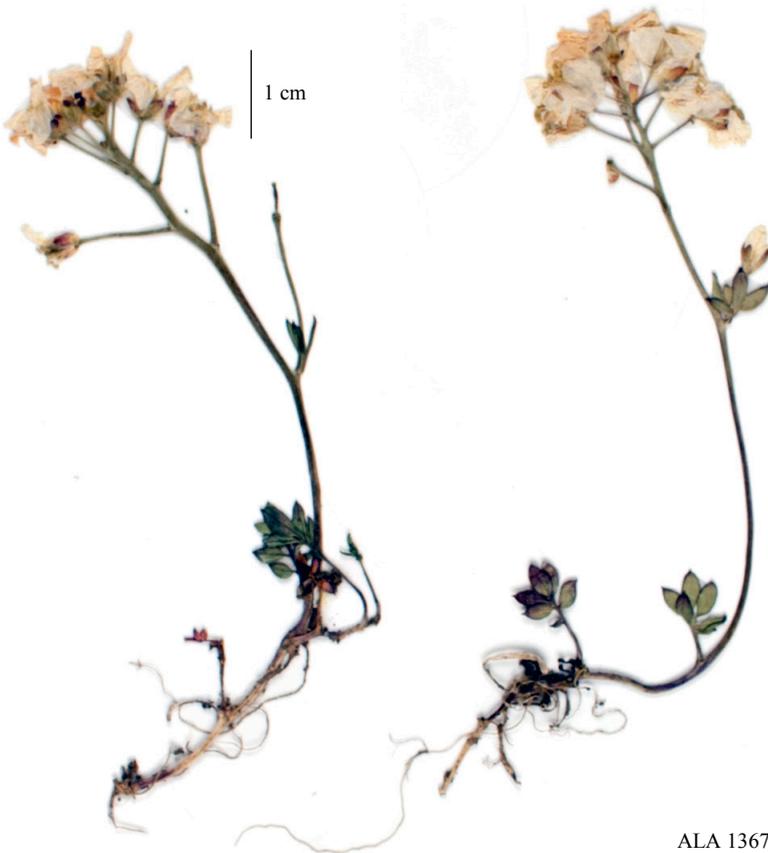


Illustration by Matthew L. Carlson

Cardamine microphylla

- General:** Perennial herb, usually glabrous, sometimes sparsely hairy, 3 to 15 cm tall; rhizomes cylindrical, slender, 0.7 to 1.5 mm in diameter; stems erect or ascending, unbranched.
- Leaves:** Rhizomal leaves pinnately divided into 5 or 7 lobes, not fleshy, 2.5 to 6.5 cm long with petioles 1.5 to 5.5 cm long; leaflets entire, ovate to elliptic, 4 to 12 mm long, 2.5 to 6 mm wide with petiolules 1.5 to 7 mm long; stem leaves entire or pinnately divided into 3 to 7 lobes, with petioles 2 to 15 mm long; leaflets entire, ovate to elliptic, 6 to 13 mm long, 1 to 7 mm wide, subsessile or with petiolules to 2 mm long.
- Flowers:** Flowers arranged in terminal racemes of 5 to 20, elongating in fruit; pedicels erect to ascending, 5 to 25 mm long; sepals green or purple-tinted, ovate to oblong, 3 to 4 mm tall; petals usually white, rarely lavender, broadly ovate, 6 to 10 mm long.
- Fruits:** Siliques linear, 2 to 3.5 cm long, 1.2 to 1.7 mm wide; seeds brown, oblong, roughly 1.5 mm by 1 mm.



ALA 136743

Ecology

Elevation:	Known from near sea level to 1,440 m in Alaska.
Landform:	Floodplains, stream banks, river bars, river terraces, bog shores, alpine slopes.
Soil Type:	Cobble, gravel, sand, silt, clay, peat; sometimes associated with calcareous substrates.
Moisture regime:	Moist to wet.
Slope:	Mostly on gentle slopes, also on steep slopes.
Aspect:	Predominantly northwest to north to northeast; less commonly found on east aspects.
Vegetation type:	<i>Dryas</i> heath, moss, tussock tundra, dwarf shrub – herbaceous tundra.
Associated species:	<i>Cerastium beeringianum</i> , <i>Petasites frigidus</i> , <i>Ranunculus sulphureus</i> , <i>Stellaria humifusa</i> ; mosses.
Longevity:	Perennial but likely short-lived, as indicated by weak, herbaceous caudex. ⁶³
Phenology:	Flowering late June, probably sooner, through early August; fruiting early July.
Population estimate:	Nine known occurrences in Alaska; at least one population is locally common.
Reproductive biology:	Probably pollinated by bees and flies, ⁶³ reproduces vegetatively from rhizomes. ⁶²

Similar Species^{61, 62}

Three similar, white-flowered *Cardamine* species with leaves divided into 3 to 7 lobes occur in northern Alaska. These species can be distinguished from each other according to the morphological features and geographic ranges listed in the table below. *Cardamine blaisdellii*, which occurs in the Russian Far East and northeast Alaska, was until recently treated variously as a subspecies or variety of *Cardamine microphylla* or within *Cardamine hyperborea*, a questionable taxon of the Russian Far East.⁶¹

Species	Leaflet Shape	Leaflet Margin	Leaflet Length	Range
<i>Cardamine microphylla</i>	Ovate to elliptic	Entire	4 to 13 mm long	Northeast Alaska
<i>Cardamine digitata</i>	Linear	Entire	10 to 25 mm long	Across northern Alaska
<i>Cardamine blaisdellii</i>	Broadly obovate	3- to 5-toothed	4 to 15 mm long	Northwest Alaska



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