

Erigeron muirii A. Gray

Asteraceae

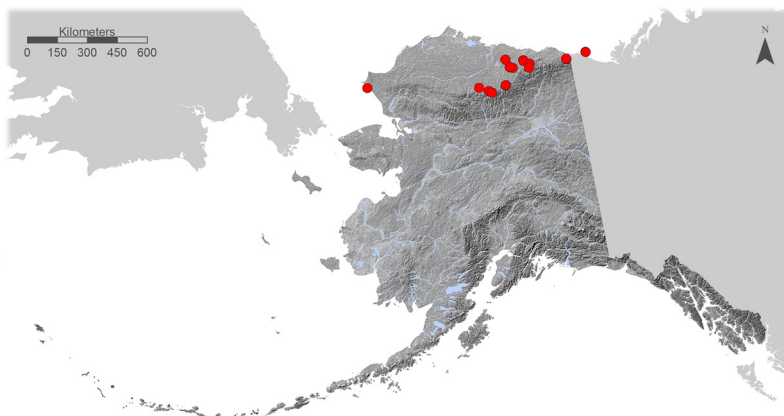
Synonyms: *Erigeron grandiflorus* ssp. *muirii*

Global Distribution: Endemic to arctic Alaska and Yukon.

Alaska Distribution: Arctic Tundra.

Ecoregions Occupied: Beaufort Coastal Plain, Brooks Foothills, Brooks Range.

Conservation Status: S2S3 G2G3; BLM Sensitive.



Description^{24, 25, 102, 103}

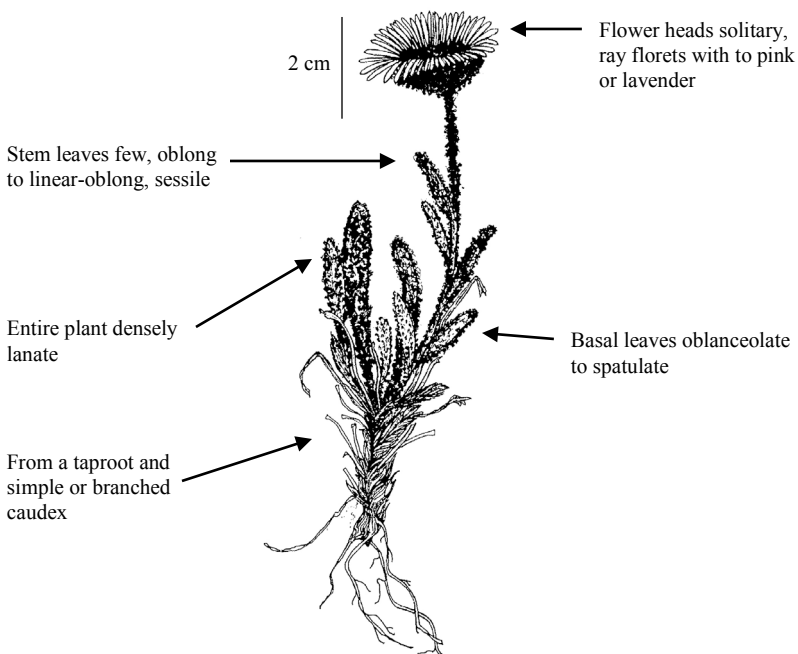


Illustration by Anne-Lillian Schell

Erigeron muirii

- General:** Perennial herb from thick taproot and simple or branched caudex; stems erect, 3 to 10 cm tall; entire plant densely lanate, gray-green.
- Leaves:** Basal leaves oblanceolate to spatulate, 1 to 6 cm long, 2 to 10 mm wide with entire margins; stem leaves oblong to linear-oblong, reduced.
- Flowers:** Flower heads solitary; involucre 6 to 10 mm tall, 12 to 20 mm wide; involucre bracts arranged in two rows, hairs often somewhat yellow; ray florets 60 to 100, corollas white, pink, or lavender, 8 to 13 mm long; disc florets 3.5 to 5 mm long.
- Fruits:** Achenes 1.9 to 2.2 mm long, pappi white.



Ecology

- Elevation:** Found from 80 to 1,200 m.
- Landform:** Alpine slopes, alpine ridges, rock outcrops, river bluffs, river terraces, tundra slopes, pingos.
- Soil Type:** Scree, gravel, rock; sometimes associated with calcareous substrates.
- Moisture regime:** Dry; sometimes in areas of late-melting snow banks.
- Slope:** Gentle to steep.
- Aspect:** Predominantly southeast to south to southwest; has been found less frequently on east, west, and northwest aspects.

- Vegetation type:** Sparsely vegetated, *Dryas* tundra.
- Associated species:** *Anemone drummondii*, *Boykinia richardsonii*, *Cassiope tetragona*, *Castilleja hyperborea*, *Cetraria cuculata*, *Cetraria nivalis*, *Cornicularia divergens*, *Dryas octopetala*, *Eritrichium aretoides*, *Lupinus arcticus*, *Paxkera cymbalaria*, *Bistorta plumosa*, *Salix reticulata*, *Saxifraga bronchialis*, *Saxifraga tricuspidata*, *Silene acaulis*, *Thamnomia subuliformis*, *Vaccinium uliginosum*.
- Longevity:** Perennial, longevity unknown.
- Phenology:** Flowering early July, probably sooner, through early August.
- Population estimate:** There are 16 known occurrences in Alaska; at least two occurrences are locally common with 500 to 1,000 individuals.¹⁰⁴
- Reproductive biology:** Likely pollinated by various insects including solitary bees, flies, and butterflies;⁶³ *Erigeron glabellus* in interior Alaska is known to be pollinated by one fritillary butterfly species and three halictid bee species.¹⁰⁵

Similar Species^{24, 25, 102, 103}

Erigeron muirii can be recognized by its tangled, wooly hairs. Several other *Erigeron* species have similar morphology and superficially similar pubescence and can be confused with *Erigeron muirii*. The table below shows morphological features for *Erigeron* species that occur in arctic Alaska and have broad, densely hairy leaves, solitary flower heads (at least sometimes), and ray florets longer than 6 mm. *Erigeron grandiflorus* is not considered here because Nesom and Murray (2004) restricted the name to a more southern cordilleran plant and included *Erigeron grandiflorus* ssp. *arcticus* as a synonym of *Erigeron porsildii*.¹⁰³

Species	Leaf Hairs	Stems	Involucral Hairs	Ray Florets
<i>Erigeron muirii</i>	Densely lanate; hairs tangled and wooly	3 to 10 cm tall	Densely lanate; hairs often somewhat yellow	8 to 13 mm long
<i>Erigeron porsildii</i>	Densely pubescent with coarse, stiff hairs (not tangled, wooly)	10 to 30 cm tall	Densely pubescent with coarse, stiff, white hairs (not tangled, wooly)	13 to 17 mm long
<i>Erigeron caespitosus</i>	Pubescent with short, stiff hairs (not tangled, wooly)	5 to 25 cm tall	Pubescent with coarse, stiff, white hairs (not tangled, wooly)	5 to 15 mm long
<i>Erigeron hyperboreus</i>	Pubescent with coarse, stiff hairs (not tangled, wooly)	3 to 15 cm tall	Pubescent with coarse, stiff hairs with purple-black cross walls (not tangled, wooly)	7 to 15 mm long



ALA 22317