

Global Distribution: Eurasia, Alaska, Yukon, Northwest Territories.

Alaska Distribution: Intermontane Boreal, Alaska Range Transition, Coastal Mountains Transition.

Ecoregions Occupied: Tanana-Kuskokwim Lowlands, Alaska Range, Wrangell Mountains.

Conservation Status: S1S2 G5?; BLM Watch.



Description^{24, 25, 72}

Illustration by Susan A. Reznicek, courtesy of Flora of North America Association

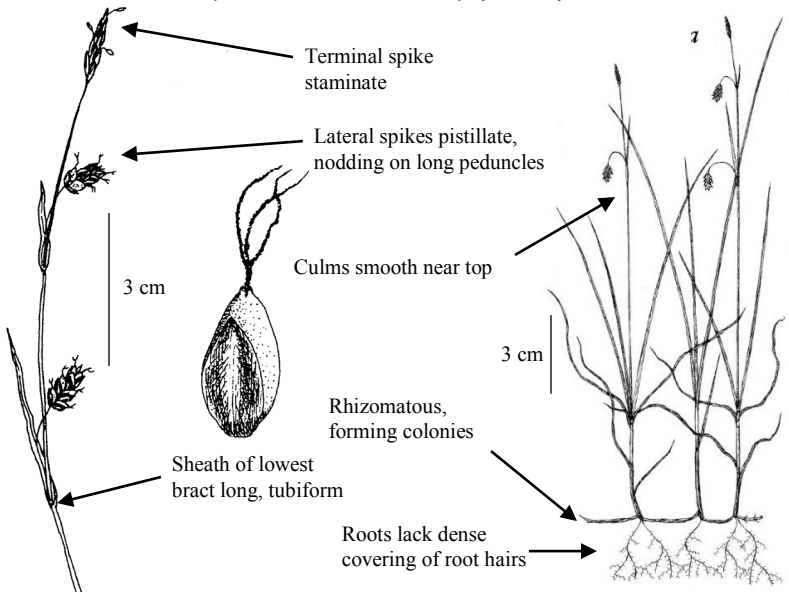


Illustration by Marcel Jomphe, courtesy of Canadian Science Publishing

Carex laxa

- General:** Perennial sedge from long rhizomes, forming colonies; culms 15 to 40 cm tall, slender, smooth near the top, leafy near base.
- Leaves:** Lower sheaths green to pale brown; ligules 1.4 to 3.5 mm tall, taller than wide; blades green, flat, 2 to 25 cm long, 1 to 2.5 mm wide.
- Spikes:** Lowermost bract leaf-like, shorter than inflorescence, 0.9 to 5 cm long with tubiform sheaths 9 to 22 mm long; terminal spike staminate with long peduncle; lateral spikes 1 to 2, pistillate, short-cylindric, 6 to 15 mm long, 4 to 6 mm wide, nodding on long, flexible peduncles.
- Pistillate Scales:** Red-brown, ovate, broadly acute or obtuse, brown with a yellow-green midvein, as long as or longer than perigynia.
- Perigynia:** 5 to 18, dense, glaucous-green to tan, 2.8 to 4 mm long, 1.2 to 1.5 mm wide, papillose, beak absent or poorly defined up to 0.3 mm.



Ecology

- Elevation:** Known from 580 to 1,080 m in Alaska.⁴⁹
- Landform:** Marshes, fens, pond margins, lake shores.

- Soil Type:** Likely organic soil and mud; many species of *Carex* sect. *Paniceae* are often associated with calcareous substrates.⁷²
- Moisture regime:** Saturated to wet.
- Slope:** Flat to gentle.
- Aspect:** No particular aspect.
- Vegetation type:** Graminoid meadow, graminoid-forb marsh, wet tundra.
- Associated species:** *Carex buxbaumii*, *Carex leptalea*, *Carex limosa*, *Carex paupercula*, *Carex tenuiflora*, *Equisetum fluviatile*, *Eriophorum angustifolium*, *Eriophorum russeolum*, *Trichophorum caespitosum*.
- Longevity:** Perennial; most *Carex* species are long-lived.⁶⁵
- Phenology:** Fruiting early to mid-summer.⁷²
- Population estimate:** Three known occurrences in Alaska; one population in the Tanana River Basin consists of scattered individuals.⁴⁸
- Reproductive biology:** Most *Carex* species are wind-pollinated and self-compatible;⁶⁶ *Carex laxa* reproduces vegetatively from rhizomes in addition to sexually;⁷² the inflorescences are prone to infection by smut (*Anthracoidea* species).⁷³
- Herbivory:** *Carex* species provide preferred food source for many waterfowl and mammals.⁶⁸

Similar Species^{24, 25, 72, 74}

Carex laxa has likely been overlooked in the field because it can be easily mistaken for *Carex limosa* and other species of *Carex* sect. *Limosae*, which grow in similar habitats.⁷² The table below lists morphological features that distinguish these species.

Species	Habit	Roots	Lowest bract	Lowest bract sheath
<i>Carex laxa</i>	Rhizomatous	Lacking dense covering of root hairs	Shorter than inflorescence	Long tubiform sheath
<i>Carex limosa</i>	Stoloniferous	Densely covered with yellow-orange root hairs	Shorter than inflorescence	Short sheath
<i>Carex paupercula</i>	Rhizomatous	Densely covered with yellow-orange root hairs	Equaling or exceeding inflorescence	Bract slightly sheathing at base
<i>Carex pluriflora</i>	Rhizomatous	Densely covered with yellow-orange root hairs	Shorter than inflorescence	Short sheath
<i>Carex rariflora</i>	Stoloniferous	Densely covered with yellow-orange root hairs	Much shorter than inflorescence	Short, dark sheath



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