

Key to the *Luzula* of Oregon

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This DRAFT key is based in large part on Zika 2008, in which the *Luzula* key comes from the work of Kirschner (see Kirschner 2002). However, parts come from Swab 2000, and we have modified all of it to fit the species present in Oregon. This key includes major changes in *Luzula* subg. *Luzula* as compared to the treatments in the Jepson Manual and Flora of North America.

Sources:

- Swab, Janice Coffey. 2000. *Luzula*. pp. 255 – 267 in Volume 22 of Flora of North America Editorial Committee. Flora of North America North of Mexico. Oxford University Press, New York.
- Dennis, LaRea J., and Richard R. Halse. 2008. Aquatic and Wetland Plants of Oregon with Vegetative Keys. Uncial Press, Aloha, Oregon.
- Kirschner, J., ed. 2002. Juncaceae 1: *Rostokovia* to *Luzula*, in Species Plantarum: Flora of the World Part 6. Australian Biological Resources Study, Canberra, Australia. 237 pp.
- Zika, Peter F. 2008. Juncaceae. Manual for the Jepson Herbarium Public Program 18-20 July 2008. University of California at Berkeley Herbarium, Berkeley, California.

Key to subgenera

1. Inflorescence consisting of 1 or more dense clusters (which may be on long branches) *Luzula* subgenus *Luzula*
- 1' Inflorescence consisting of solitary flowers or groups of 2 – 4 flowers
 2. Leaves less than 3 mm wide *Luzula* subgenus *Pterodes*; *L. forsteri*
 - 2' Leaves 3 – 10 mm wide *Luzula* subgenus *Anthelaea*

Luzula subgenus *Pterodes*

L. forsteri – introduced at Salem, not seen since 1910.

Luzula subgenus *Anthelaea*

1. Inflorescence branches strongly spreading, often divaricate; pedicels and peduncles stiff
 2. Perianth tips gradually long-tapered and reflexed; anthers 0.4 – 0.6 mm; filaments 0.4 – 0.5 mm long; seeds ca. 0.6 mm wide *L. divaricata*
 - 2' Perianth tips acute to acuminate or cuspidate, erect; [for *L. p. f.*, anthers 0.3 – 0.5 mm long; filaments 0.5 – 0.6 mm long; seeds ca. 0.7 – 0.8 mm wide]
 3. Plants rhizomatous; sepals 2.5 – 3.5 mm long; capsule +/- as long as tepals, ovoid, with distinct beak to 1 mm long; anthers 1.0 – 1.6 mm long, about 3 times as long as filaments *L. hitchcockii*
 - 3' Plants loosely cespitose; sepals 1.8 – 2.3 mm long; capsule as long as or shorter than tepals, spheric, lacking a beak; anthers 0.3 – 0.5 mm long, as long as or shorter than filaments *L. parviflora* ssp. *fastigiata*
- 1' Inflorescence branches arching or drooping; pedicels and peduncles weak
 4. Foliage glaucous, dull; culms 10 – 30 (-35) cm tall; margins of floral bracts (bracteoles) and inflorescence bracts ciliate; habitat subalpine and alpine *L. piperi*
 - 4' Foliage green, shiny; culms (20-) 30 – 100 cm tall; margins of floral bracts (bracteoles) and inflorescence bracts lacerate or with scattered hairs; habitat lowlands to subalpine *L. parviflora* ssp. *parviflora*

***Luzula* subgenus *Luzula* – this key assumes plants have typical branching**

1. Inflorescence with a single, nodding, dense and spike-like (though often interrupted); habitat subalpine to alpine *L. spicata*
- 1' Inflorescence with 1 – several straight, dense to somewhat loose units; habitat from lowlands to alpine
 2. Inflorescence with lateral spikes sessile or on short branches (ie., inflorescence condensed)
 3. Seeds 0.5 – 0.6 mm wide; 0.8 mm long, caruncle 0.2 mm long; habitat subalpine to alpine, range NE Oregon (& Sierra Nevada) *L. orestera**
 - 3' Seeds 0.7 – 1.2 mm wide; caruncle 0.3 – 0.8 mm long; habitat lowlands to subalpine, range widespread
 4. Inflorescence dark brown, castaneous, or blackish *L. "short/dark"*
 - 4' Inflorescence greenish, light brown, or straw-colored; styles 0.3 – 0.5 mm long *L. comosa* var. *laxa*
 - 2' Inflorescence with lateral spikes on long stalks (ie., inflorescence open)
 7. Tepals 1.5 – 2 mm long; caruncle absent on seed; Klamath Region & CA (present?); leaf tips acute; habitat subalpine and alpine moist places, 6000+ feet in elevation *L. subcongesta*
 - 7' Tepals 2 – 5 mm long; caruncle present on seed; leaf tips blunt, often swollen widespread
 8. Plants rhizomatous or stoloniferous; anthers 2 - 6 times as long as the filaments (introduced) *L. campestris*
 - 8' Plants caespitose; anthers shorter than to much longer than the filaments; known in Oregon
 9. Inflorescence dark brown, castaneous, or blackish
 10. Flower clusters more loosely flowered at base, sometimes with lower flowers remote, base not truncate; longer spikes more than 10 mm long, styles (0.6) 0.8 – 1.2 mm long; seeds 0.9 – 1.2 mm wide *L. subsessilis*
 10. Flower clusters uniformly dense throughout, +/- truncate at base, to about 0.9 mm long; styles 0.3 – 0.5 mm long; seeds 0.3 – 0.8 mm wide *L. multiflora*
 - 9' Inflorescence greenish, pale brown, or straw-colored; style 0.3 – 0.8 mm long; seeds 0.7 – 0.9 mm wide
 10. Flower clusters uniformly dense throughout; longer spikes to about 0.9 mm long (introduced) *L. multiflora* ssp. *multiflora*
 - 10' Flower clusters loose at base, sometimes with some flowers remote; longer spikes usually at least 10 mm long *L. comosa* var. *comosa*

Compare the two common west-side taxa with dark spikes more than 1 cm long:

1. Styles 0.6 – 1.7 mm long; anthers more than 1 mm long even when dried up after flowering; filament usually 0.1 – 0.3 mm long; lateral spikes usually on erect branches *L. subsessilis*
- 1' Styles 0.3 – 0.6 mm long; anthers usually 0.8 mm long, to 1.2 mm long when fresh; filament usually 0.3 – 0.5 mm long; lateral spikes usually sessile *L. "short/dark"*

Compare the two varieties of *L. comosa*

1. Inflorescence usually congested; style 0.4 – 0.5 mm long; anthers 0.6 – 1.0 mm long; seeds 0.8 – 0.9 mm wide *L. comosa* var. *comosa*
- 1' Inflorescence usually with obvious branches; style 0.3 – 0.7 mm long; anthers 0.6 – 1.6 mm long; seeds 0.7 – 1.0 mm wide *L. comosa* var. *laxa*

* Plants from NE Oregon, tentatively assigned to *L. orestera* (which is otherwise known only from California) may be *L. multiflora* ssp. *frigida*. Available specimens lack the mature seeds required for positive identification. Seeds of *L. orestera* 0.8 mm long; those of *L. multiflora* ssp. *frigida* are 1.1 – 1.4 mm long.