

-State Species Abstract-  
-Wyoming Natural Diversity Database-

*LESQUERELLA PROSTRATA*  
PROSTRATE BLADDERPOD  
Family: Brassicaceae

Status:

US Fish & Wildlife Service: None

Agency Status: WY BLM Sensitive.

Heritage Rank:

Global: G3 State: S2

WYNDD Plant List: Regional endemic  
(Medium conservation priority)

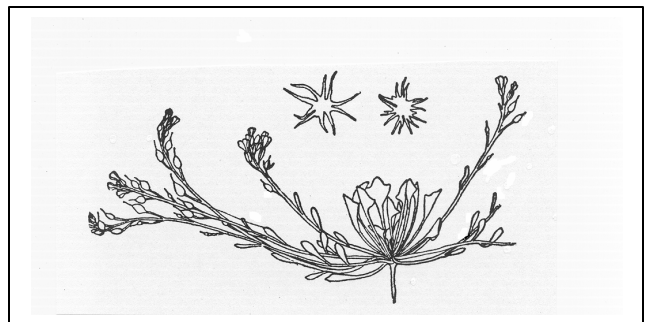
Description: Prostrate bladderpod is a perennial forb with several prostrate to decumbent stems 6-15 cm long from a sparsely branched caudex. Leaves are densely silvery-pubescent with sessile, forked hairs. The basal leaves are 1-5 cm long, 5-10 mm wide, and have diamond, arrowhead-like, deltate, or elliptic leaf blades that taper abruptly to a long petiole. Stem leaves are 0.5-1.5 cm long, linear to oblanceolate, and become sessile above. The inflorescence is an elongated, open raceme of yellow flowers with 4 sepals and 4 petals 7-9 mm long. Fruits are 5-10 mm long, acutish at the apex, slightly compressed, ovoid to elliptic, with styles 3-6 mm long and are borne on S-shaped to erect stalks 5-10 mm long. Fruit walls are densely pubescent on the outside with loose, multi-branched hairs and glabrous to sparsely hairy on the inside. Ovules 2 (occasionally 4) per locule (Dorn 1992; Rollins and Shaw 1973; Rollins 1993; Fertig 2000, Heidel 2005).

Similar Species: *Lesquerella multiceps* has sparsely pubescent, globose fruits that are not compressed, basal leaves with elliptic to obovate blades 4-12 mm wide that taper gradually to a long petiole, and a multi-branched caudex. *L. alpina* var. *alpina* has



Above: *Lesquerella prostrata* in flower, Unita County, WY. Photo by Walter Fertig.

Below: *L. prostrata* in fruit (and with hairs magnified) by E.B. Payson from Payson (1922).



linear to narrowly oblanceolate basal leaf blades less than 5 mm wide that are often poorly differentiated from the petiole. *L. alpina* var. *spatulata* has wider outer leaf blades with obovate margins and erect stems over 10 cm long. *L. alpina* var. *condensata* has densely tufted stems with the flowering branches barely (if at all) exceeding the basal leaves and spreading stellate hairs that give the herbage a shaggy appearance. *L. macrocarpa* and *L. fremontii* have styles under 2 mm long and fruits on recurved stalks. *L. utahensis* has sparsely pubescent, globose fruits with appressed hairs and 4 ovules per locule. *L. garrettii* has basal leaves that gradually taper to a long petiole and caudex branches covered with conspicuous leaf scars and remnant leaf bases. *L.*

*occidentalis* has erect or decumbent stems, elliptic to obovate or heart-shaped basal leaves, and compressed fruits (especially on the margins and apex). *L. wardii* has a short, dense inflorescence, rounded to obovate stem leaves, and 2-8 ovules per locule (Dorn 1992; Rollins and Shaw 1973; Rollins 1993; Fertig 2000).

Flowering/Fruiting Period: Flowering occurs from mid-April to late June. Fruit present from early June to early July.

Distribution: Regional endemic with a bimodal distribution in central Idaho and southeastern Idaho, southwestern Wyoming, and northeastern Utah. Wyoming populations occur in the southern Overthrust Belt in Lincoln and Uinta counties.

Habitat: Wyoming populations are most abundant on west to south or southeast-facing slopes and rims of whitish to reddish or gray limey clays and soft sandstones with a surface layer of fine gravel, or else on limestone, at elevations of 6630-7700 feet. These sites are primarily entisols or aridisols derived from the Eocene Green River (Laney member) or Wasatch formations. Populations in the southern Overthrust Belt and Bridger Butte are found on soils derived from the Lower Cretaceous Aspen Shale and Eocene Bridger Formation. Most of these sites are dominated by sparse cushion plants, bunchgrasses, and low shrubs with a total vegetative cover of 10-25%. Common associated species include *Eriogonum brevicaulis* var. *laxifolium*, *Chaenactis douglasii*, *Cryptantha caespitosa*, *Physaria condensata*, *Eromogone hookeri*, *Poa secunda*, *Elymus spicatus*, *Achnatherum hymenoides*, *Artemisia tridentata* var. *wyomingensis*, and *Chrysothamnus viscidiflorus*. At least one Wyoming population is also found on northwest-facing reddish-gray rocky clay-shale slopes in *Juniperus osteosperma* woodlands with an



Above: Habitat of *Lesquerella prostrata* on sparsely vegetated openings on multicolored outcrops of sandstone and shale of the Wasatch Formation. Photo by Walter Fertig.

Below: Habitat of *Lesquerella prostrata* on limestone pavement of the Madison Limestone or Group. Photo by B. Heidel.



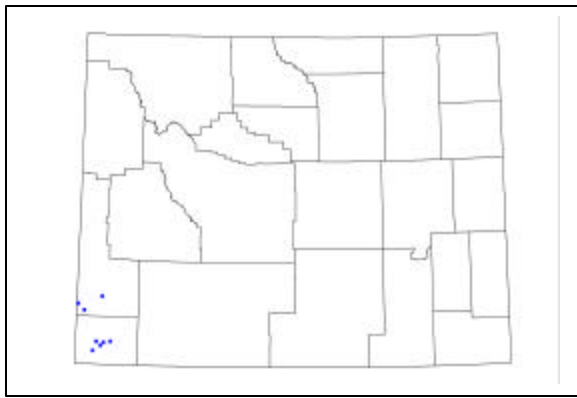
open understory of *Artemisia tridentata* and *Poa secunda*. Prostrate bladderpod is present, but uncommon, in sandy-gravelly openings with *Artemisia tridentata* var. *wyomingensis*-*Chrysothamnus viscidiflorus* shrub

communities with 50% vegetative cover at the toe of steep slopes (Fertig 2000).

Occurrences in Wyoming: Known from 8 extant occurrences in Wyoming (2 of which were last observed in 2004).

Abundance: Total population in Wyoming estimated at 6700-13000 plants in 1999 and 2004. Individual populations range in size from 10-100 plants to nearly 5000 in patches of 1-50 acres. The entire state range covers an area of less than 100 acres (Fertig 2000, Heidel 2005).

Trends: Trend data are lacking for most occurrences, although several have been stable from 1995-1999 and some have been known for nearly a century. The short-term trends are likely to show decline with drought, based on drought observations of fruit abortion, low numbers of flowering stems, and signs of stress in surrounding vegetation.



Wyoming distribution of *Lesquerella prostrata*.

Protection status: All known populations are on found on public lands managed for multiple use.

Threats: Development activity is generally low in the microhabitats occupied by the species. Quarrying is a potential threat.

Increased oil and gas development in its habitat may become a greater threat.

Populations are often found on steep slopes or unstable soils making the sites less suitable for well siting and pipeline/road construction, but vulnerable to incidental destabilization or exotic species invasion.

Managed Areas: Occurs on lands managed by the BLM Kemmerer Field Office and the state of Wyoming.

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