

-State Species Abstract-
-Wyoming Natural Diversity Database-

LESQUERELLA MACROCARPA
LARGE-FRUITED BLADDERPOD
Family: Brassicaceae

Status:

US Fish & Wildlife Service: None; formerly
a C2 candidate for listing under the
Endangered Species Act.

Agency Status: WY BLM Sensitive.

Heritage Rank: Global: G2 State: S2

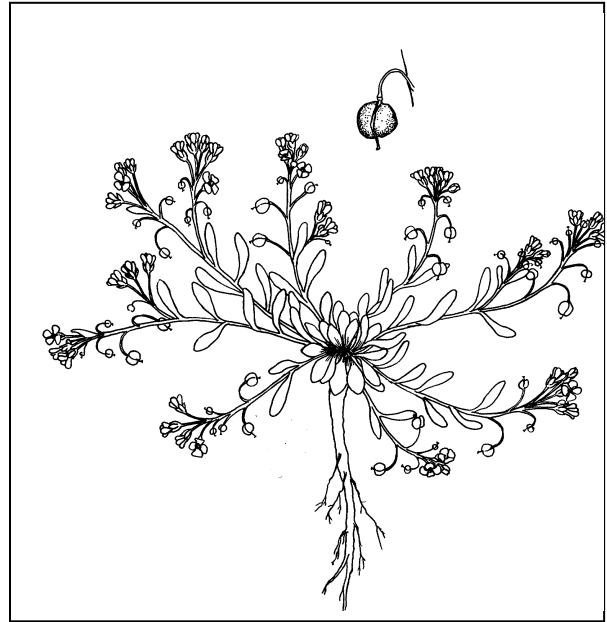
Range Context: Local endemic/ Core

Wyomng Contribution Rank: Very high

Description: Large-fruited bladderpod is a densely silvery-gray pubescent perennial herb with decumbent stems 5-30 cm long. The basal leaf blades are ovate to oblanceolate, 0.5-3 cm long, 3-20 mm wide, and petioled. Stem leaves are narrower and stalkless. Flowers have four yellow petals 4-7 mm long. The inflated, globose fruits are 4-8 mm long and borne on recurved stalks. The fruits are slightly hairy on the outer wall and glabrous on the inner surface (Rollins and Shaw 1973; Dorn 1980; Fertig et al. 1994; Fertig 1995).

Similar Species: *Lesquerella fremontii* has smaller fruits that are slightly flattened and densely pubescent on the outer wall and lightly hairy on the inner wall. Other Wyoming species of *Lesquerella* differ in having linear leaves or fruits borne on S-shaped fruitstalks. The large fruits of this species are similar to those of twinpods (*Physaria* spp.), but are rounded at the tips rather than notched (Dorn 2001; Fertig et al. 1994; Fertig 1995).

Flowering/Fruiting Period: Flowering occurs from mid May to late June, depending on spring moisture conditions. Fruiting has been



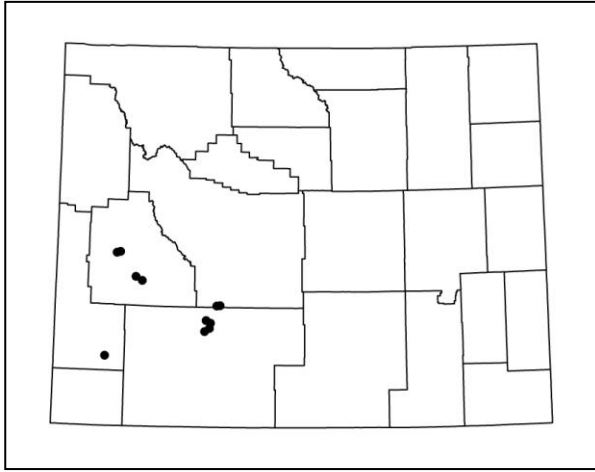
Above: *Lesquerella macrocarpa* by Jane Dorn from Dorn and Dorn (1980).

Below: *Lesquerella macrocarpa* in flower and fruit by B. Heidel.



observed from late May to July (Fertig 1995). Reports of fruit persisting to September (Weynand and Amidon 1990; Fertig et al. 1994) are probably erroneous.

Distribution: Endemic to the western rim of the Great Divide Basin (Fremont and Sweetwater Cos.), the Green River Basin near Opal, Wyoming (Lincoln Co.), and upper Green River (Sublette Co.). The entire known range of the species occupies an area of less than 25 square miles (Fertig 1995).



Wyoming distribution of *Lesquerella macrocarpa*.

Habitat: Typically occurs in sparsely vegetated *Atriplex gardneri*-*Elymus elymoides*) communities on barren, fine-textured clays and shales, often with gypsum or bentonite (Dorn 1980; Fertig 1995). Populations are usually on slopes of 0-15% on low hills, knolls, and colluvial fans at elevations of 6740-7760 feet. It is usually absent from rocky soils (although it may be present on fine clays with a surface of oily-shale rock) and areas dominated by sagebrush or high cover of grasses (Fertig 1995, Heidel 2009).

Occurrences in Wyoming: Known from 12 occurrences, most recently surveyed in 2009.

Abundance: Populations range in size from several hundred to tens of thousands of individuals. Area ranges from 4 to over 2000 acres (Marriott 1988, Heidel 2009). Total population size estimated at ca 52,000 plants in 1994 (Fertig 1995).

Area of occupancy: The entire known extent of the species spans an area of less than 25 square miles (Fertig 1995), while the total area of occupied habitat covers an area of ca 5000 acres.

Trends: Population trend data are limited, but it was suggested that populations are stable

over the long term in the Bush Rim area (Fertig 1995). However, efforts to relocate a couple occurrences were unsuccessful, and visits during drought periods indicated steep declines that may reflect low germination or recruitment (Heidel 2009).

Protection status: Two populations are found in the BLM Steamboat ACEC. Two other occurrences are located in the Honeycomb Buttes Wilderness Study Area. All other known populations are on public lands managed for multiple use, including recreation, livestock grazing, and mineral development.

Threats: Whiskey Basin Consultants (1981) listed trampling by wild horses and off-road vehicles as potential threats. Marriott (1988) questions these as threats and suggests that some disturbance may even be beneficial (although not required). Surface disturbance associated with oil and gas exploration are potential threats, although many populations occur on unstable shrink-swell clay flats and slopes that are unsuited for roads or permanent structures.



Above: *Lesquerella macrocarpa* habitat on shale barrens at base of Bush Rim. Photo by Hollis Marriott.

Managed Areas: Occurs on lands managed by the BLM Kemmerer, Pinedale, and Rock Springs Field Offices.

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