

-State Species Account-
-Wyoming Natural Diversity Database-

AQUILEGIA LARAMIENSIS
LARAMIE COLUMBINE
Family: Ranunculaceae

Status:

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

Agency Status: USFS Region 2 Sensitive, WY BLM Sensitive.

Heritage Rank:

Global: G3 State: S3

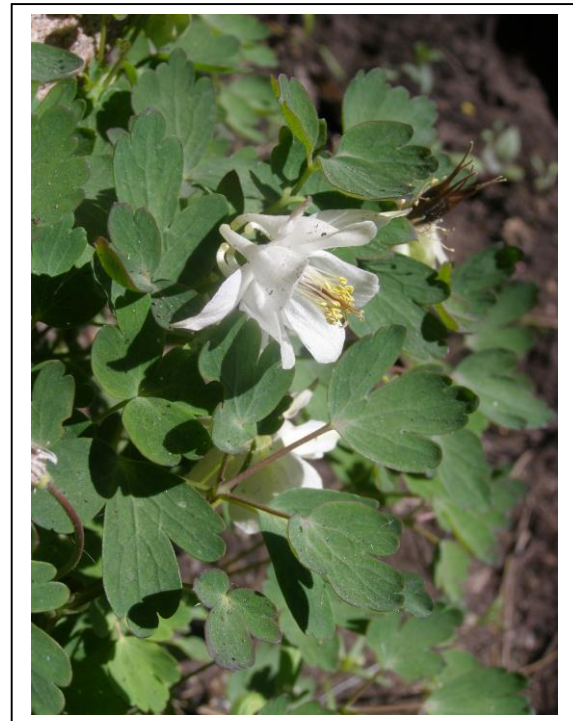
WYNDD Plant List: State Endemic
(Very High conservation priority)

Description: Laramie columbine is a perennial, leafy, many-stemmed herb 5-20 cm tall arising from a rather large, semi-fleshy root. Leaves are mostly twice ternately compound with leaflets 0.5-3 cm long. Flowers are nodding and borne among the leaves, 1-1.5 cm mm long, with sepals and spurs that are often greenish-white, and petals that are often cream colored, varying in color from bright white to pale lavender. The slender hooked spurs are shorter than the sepals and usually less than 10 mm long. Fruits are follicles 1-1.5 cm long with spreading tips. The follicles are finely hairy when green; dried fruit from previous years are glabrous (Nelson 1896; Nelson & Coulter 1909, Fertig et al. 1994; Marriott and Pokorny 2006, Heidel and Welborn 2015).

Similar Species: *Aquilegia coerulea* differs in having petals with spurs over 20 mm long. *Aquilegia brevistyla* has dark blue-purple, pubescent sepals. *Aquilegia jonesii* has entirely basal leaves with blades less than 15 mm long.

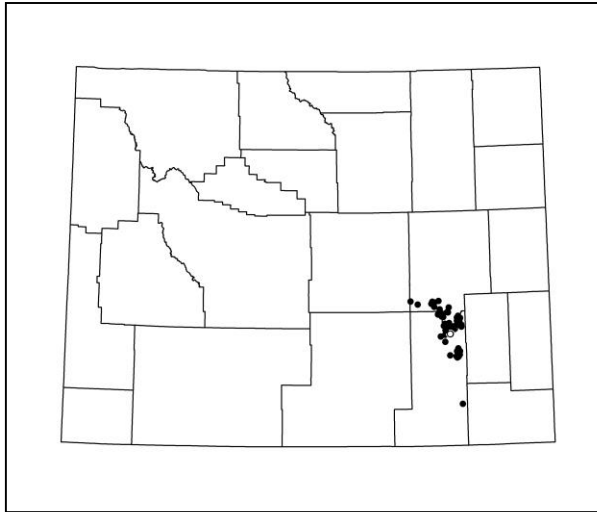


Above: *Aquilegia laramiensis* by Isobel Nichols.
Below: *A. laramiensis* by Bonnie Heidel.

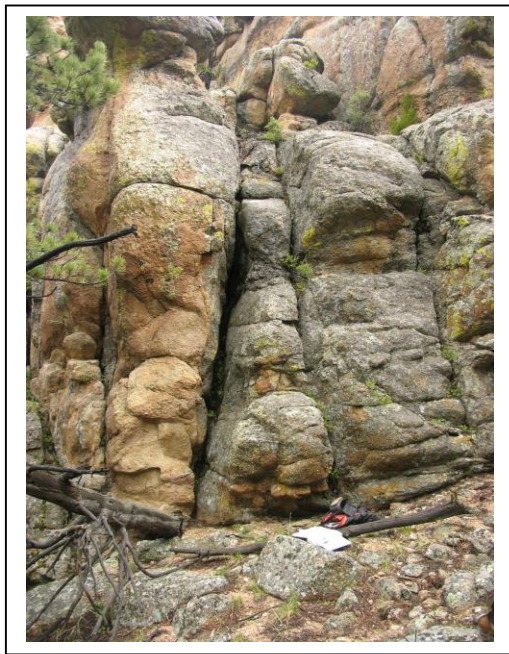


Flowering/Fruiting Period: Mid June-July (August).

Distribution: Endemic to the Laramie Range of southeast Wyoming (Albany and Converse Counties).



Wyoming distribution of *Aquilegia laramiensis*



Above: Granite rock crevice habitat of *Aquilegia laramiensis* by Dennis Horning.

Habitat: Granite rock outcrops including cliffs and boulders, particularly crevices, ledges and cliff bases often shaded by aspect, overhanging rock, or trees. Soils are poorly

developed, derived mainly from Laramie granite but also from other Precambrian igneous and metamorphic rocks. The setting is usually in forest, sometimes in openings, grassland or burned forest. Occurs with *Cystopteris fragilis*, *Heuchera parvifolia*, *Physocarpus monogynus*, *Potentilla fissa* and *Woodsia scopulina* (Fertig et al. 1994, Marriott and Horning 2004 a, b, 2010; Marriott and Pokorny 2006, Heidel and Wellborn 2015). Elevation range: 5400-10,200 feet.

Management Considerations: Most populations are on rock outcrops out of reach of grazing animals and human traffic. Collection for garden use is a potential threat at some accessible sites. Fire may be a local concern but survival has been documented at almost all sites that burned in 2012 fires (Marriott and Pokorny 2006, Heidel and Welborn 2015). Threats associated with oil and gas development, and wind development are low at present and as projected for 2030 (Heidel et al. 2014).

Occurrences in Wyoming: Known from 51 extant occurrences, 1 historical record (1895) and 1 extirpated record. Thirty-nine of the extant occurrences were documented during rangewide surveys in 2003, 2004 and 2009 (Marriott and Horning 2004a, 2004b, 2010).

Abundance: Populations generally are small, consisting of scattered patches on appropriate microsites on rock outcrops. Size estimates from sites surveyed in 2003 and 2004 ranged from less than 10 to over 500. Large complex systems of rock outcrops are difficult to survey, and some of the larger sites probably have significantly more plants than were estimated during surveys.

Trends: Population trends between 2003 or 2004 vs. 2014 indicated that decline was more common than increase in both burned

and unburned settings, including settings that burned in either 2002 or 2012. Trend data was compensated in part by finding population extensions. It is possible that the declines reflect prolonged drought as much or more than fire events, and resilience to fire is documented (Heidel and Welborn 2015).

Protection status: One occurrence is within the Ashenfelder Basin Special Interest Area and another in the La Bonte Research Natural Area. Other known populations are on private, state, or public lands managed for multiple use.

Threats: Most populations are on rock outcrops out of reach of grazing animals and human traffic. Collection for garden use is a potential threat at some accessible sites. Threats associated with oil and gas development, and wind development are low at present and as projected for 2030 (Heidel et al. 2014). Fire may be a local concern but survival has been documented at almost all sites that burned in 2012 fires (Marriott and Pokorny 2006, Heidel and Welborn 2015).

Managed Areas: Occurs on lands managed by Medicine Bow National Forest (Douglas Ranger District), the Rawlins Field Office of the BLM, and the State of Wyoming.

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