Rare Plant Status Review: *Lomatium repostum*

Proposed Change from California Rare Plant Rank 1B.2, G2G3 / S2S3 to 4.2 G3 / S3

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Changes to the original text are in blue font

**Background**

*Lomatium repostum* (Jeps.) Mathias is a California Rare Plant Rank 1B.2 plant in the Apiaceae that has been included in the CNPS Inventory since 1974 (Powell 1974; CNPS 2023, see https://rareplants.cnps.org/Plants/Details/1000). In 2017, *Lomatium repostum* was proposed for rank change by R. McNeill (pers. comm. 2017) over concerns of fire and urban and agricultural development in the areas where it occurs. As part of a 2021 status review, a location table was developed that had an estimated 43 occurrences, of which 16 were historical and 25 in areas impacted by fire in the previous six years. The review was completed at the beginning of 2021, and *L. repostum* was upranked from CRPR 4.3 to 1B.2 (Green et al. 2021). After that review, it came to our attention that a number of unprocessed CNDDB field survey forms and iNaturalist observations were not included in the 2021 location table (CNDDB 2023, iNaturalist 2022). Therefore, we have prepared a new Status Review with a new location table.

The new location table has approximately 135 estimated occurrences. Sixty-six are considered historical (not observed in over 20 years), while 69 are considered recent. Twenty of the occurrences are on State Park lands, 18 are in preserves or lands owned by land trusts, four are in State Forest, four are on BLM lands, one is on State Lands Commission land, eight are in regional parks, one is in the Rector Dam Watershed, and 79 are on private land or lands of unknown ownership. Due to the concern that habitat has been lost to development and agricultural conversion, we used aerial imagery to estimate if the occurrence locations still have habitat for the species (column B of the location table). We estimate that the plant may have been extirpated or partially extirpated at as many as 45 locations. Therefore, a conservative estimate is that the plant is presumed extant at 90 locations.

Over the past several years, R. McNeill has been conducting field work on *L. repostum*, in order to conduct a genetic study on the species. Based on his observations, *L. repostum* is usually found in early seral environments but is not well adapted to fire; its roots can survive light intensity fires that allow for regrowth, but it is not likely to survive high intensity fires (McNeill 2020 pers. comm.). Due to its preference for openings, the historical absence of regular, low intensity fires drastically reduced available habitat for *L. repostum*, and this reduction of available habitat was further exacerbated by development and land use changes throughout the wine country where it occurs (Green et al. 2021). Between 2009 and 2020, large fires occurred over much of the geographic range of *L. repostum*. Based on GIS analysis, we estimate that all but 29 occurrences fall within those fire perimeters (columns C and D of the location table). Since those fires, *L. repostum* has been observed (mostly on accessible public lands) in 45 locations that fall within one of the fire perimeters (green highlighted rows of the location table); this indicates that this species has been able to regenerate in many of the fire scars. Botanists familiar with this species have observed robust regeneration post-fire, with plants in newly opened habitat producing more ramets, more flowering stalks, and increased numbers of fruits (Ruygt 2023 pers. comm., Warner 2023 pers. comm.).
With at least 90 presumed extant occurrences and evidence that the plant is regenerating at 45 locations within fire scars, we propose to change *Lomatium repostum* from CRPR 1B.2 to CRPR 4.2 in the CNPS Inventory and CNDDB. If new research and information on the status of *L. repostum* becomes available, we will reevaluate its status at that time.

**Recommended Actions**

CNPS: Change *Lomatium repostum* from CRPR 1B.2 to 4.2  
CNDDB: Change *Lomatium repostum* from G2G3 / S2S3 to G3 / S3

**Current CNPS Inventory Record**

*Lomatium repostum* (Jeps.) Mathias  
Napa lomatium  
Apiaceae  
USDA Plants Symbol: LORE2  
CRPR 1B.2  
Counties: Lake, Napa, Solano, Sonoma  
States: CA

Quad name (code): Fairfield South (482A) 3812221, Mt. Vaca (499A) 3812241, Capell Valley (499B) 3812242, Mt. George (499C) 3812232, Fairfield North (499D) 3812231, Yountville (500A) 3812243, Rutherford (500B) 3812244, Sonoma (500C) 3812234, Kenwood (501A) 3812245, Santa Rosa (501B) 3812246, Aetna Springs (516B) 3812264, St. Helena (516C) 3812254, Detert Reservoir (517A) 3812265, Mount St. Helena (517B) 3812266, Mark West Springs (517C) 3812256, Calistoga (517D) 3812255, Jimtown (518A) 3812267, Geyserville (518B) 3812268, Wilson Valley (532B) 3812284, Lower Lake (533A) 3812285, Clearlake Highlands (533B) 3812286, Whispering Pines (533C) 3812276, Kelseyville (534A) 3812287, The Geysers (534D) 3812277, Wilbur Springs (547C) 3912214  
Chaparral, cismontane woodland/serpentinite; elevation 90-1030 meters.  
Perennial herb.  
Blooms March to June.  
Threatened by alteration of fire regimes, development, and agriculture. Potentially threatened by road maintenance. See *Madroño* 1(9): 149-150 for original description, and *Annals of the Missouri Botanical Garden* 25(1): 237 (1938) for revised nomenclature.

**Draft CNPS Inventory Record** *(Changes to the original record are in green text)*

*Lomatium repostum* (Jeps.) Math.  
Napa lomatium  
Apiaceae  
USDA Plants Symbol: LORE2  
CRPR 1B.2 4.2  
Counties: Lake, Napa, Solano, Sonoma  
States: CA

Quad name (code): Fairfield South (482A) 3812221, Mt. Vaca (499A) 3812231, Mt. George 3812232, Napa 3812233, Sonoma 3812234, Mt. Vaca 3812241, Capell Valley 3812242, Yountville 3812243, Rutherford 3812244, Kenwood 3812245, Santa Rosa 3812246, *Chiles Valley* 3812253, St. Helena 3812254, Calistoga 3812255, Mark West Springs 3812256, *Walter Springs* 3812263, Aetna Springs 3812264, Detert Reservoir 3812265, Mount St. Helena 812266,
Jimtown 3812267, Geyserville 3812268, Middletown 3812275, Whispering Pines 3812276, The Geysers 3812277, Wilson Valley 3812284, Lower Lake 3812285, Clearlake Highlands 3812286, Kelseyville 3812287, Wilbur Springs 3912214

General Habitat: Chaparral, cismontane woodland, broadleaved upland forest

Microhabitat details: Flat to steep slopes in chaparral and woodland (mixed evergreen forest, often with madrone).

Microhabitat: openings (often), sandstone (rarely), volcanic (often), serpentine, rocky (sometimes), gravelly (sometimes)

Elevation: 90–1030–1440 meters

Life form: Perennial herb

Bloom: March to June.

Notes: Regeneration after fire has been documented; response to severe fire requires more research.

Threats: Threatened by alteration of fire regimes, development, and agriculture. Potentially threatened by road maintenance.

Selected References:
- CNPS Status Review: Proposed Change from CRPR 4.3, G3/S3 to 1B.2, G2G3/S2S3 (2021); Proposed Change from CRPR 1B.2, G2G3/S2S3 to 4.2, G3/S3 (2023)
- Original Description: Madroño 1(9): 149-150 (1924)

Literature Cited


**Personal Communications**

