

**U.S. FISH AND WILDLIFE SERVICE**  
**5-YEAR STATUS REVIEW**  
**Dudley Bluffs Bladderpod (*Lesquerella congesta*)**

**GENERAL INFORMATION:**

**Species:** Dudley Bluffs bladderpod (*Lesquerella congesta*)

**Federal Register Notice of Listing Determination:** February 6, 1990. Endangered and Threatened Wildlife and Plants; Final Rule to Determine *Lesquerella congesta* (Dudley Bluffs bladderpod) and *Physaria obcordata* (Dudley Bluffs twinpod) to be Threatened Species (55 FR 4152).

**Classification:** Threatened species

**Most recent status review:** June 12, 2020. Dudley Bluffs bladderpod (*Lesquerella congesta*) and Dudley Bluffs twinpod (*Physaria obcordata*) 5-year review.

**Federal Register Notice citation announcing this 5-year status review:** March 13, 2023, Endangered and Threatened Wildlife and Plants; Initiation of 5-Year Status Reviews of 27 Listed Species in the Mountain-Prairie Region (88 FR 15448).

**Lead Region:** Region 6 Mountain-Prairie Region, Colorado Ecological Services Field Office, Nathan Darnall, Western Colorado Supervisor, [Nathan\\_Darnall@fws.gov](mailto:Nathan_Darnall@fws.gov), 970-628-7180.

**Current Recovery Priority Number (RPN):** 8C, moderate degree of threats with a high recovery potential, and conflict with construction, development projects, or other forms of economic activity, especially oil and gas development.

**Methodology used to complete this review:** In accordance with section 4(c)(2) of the Endangered Species Act of 1973 (16 U.S.C Section 1531 *et seq.*), as amended (Act), the purpose of a 5-year status review is to assess each threatened and endangered species to determine whether its status has changed and it should be classified differently or removed from the Lists of Threatened and Endangered Wildlife and Plants. Status reviews are to be completed in accordance with Sections 4(a) and 4(b) of the Act (16 U.S.C. Section 1533(c)). This 5-year status review was conducted by the U.S. Fish and Wildlife Service's (Service) Western Colorado Ecological Services Field Office. Data for this review were solicited from interested parties through a Federal Register notice announcing this review on March 13, 2023. We also contacted Federal and state agency partners, and county stakeholders to request any data or information we should consider in our review. Additionally, we conducted a literature search and a review of information in our files. Note that previous 5-year status reviews combined both Dudley Bluffs bladderpod and Dudley Bluffs twinpod. Per requests from partner agencies, separate 5-year status reviews have been completed for each species.

## ASSESSMENT:

### Information acquired since the last status review:

We received additional and updated survey and monitoring reports from both the Bureau of Land Management (BLM), Colorado Natural Areas Program (CNAP), and the Colorado Natural Heritage Program (CNHP) in response to our Federal Notice initiating this 5-year status review. The results indicate that the species is still present at all previously known populations, and the species distribution remains the same as described in the previous 5-year status review (Service 2020a) and species biological report (Service 2020b).

### Review Summary:

The Dudley Bluffs bladderpod (was federally listed as threatened on February 6, 1990 (55 FR 4152), along with the Dudley Bluffs twinpod (*Physaria obovata*), primarily due to habitat loss, lack of regulatory mechanisms and energy development. The Service completed a recovery plan (Service 2020c, entire) and associated recovery implementation strategy (RIS) for both species (Service 2020d, entire).

### Status of the Species:

Dudley Bluffs bladderpod is an extremely small cushion (low-growing, mat-forming) plant 0.4 to 1.2 inches (in) [1-3 centimeters (cm)] in diameter with fruiting stems up to 0.6 in (1.5 cm) in height. Flowering occurs from mid- to late April through early June. The timing of vegetative growth initiation is highly variable. Like most bladderpods, Dudley Bluffs bladderpod is an obligate outcrosser (i.e., self-incompatible). It is uncertain how long Dudley Bluffs bladderpod individuals live, but over seven years of monitoring by the BLM, a large proportion of the individuals persisted for the entire 7-year period, and it is likely that plants can live much longer (Service 2020b, p. 9). Dudley Bluffs bladderpod is found exclusively in the Piceance Basin in Rio Blanco County, Colorado and is restricted to barren white shale outcrops exposed through erosion of drainages predominately associated with the Thirteenmile Creek Tongue of the Green River Formation (Service 2020b, p. 11).

Many species of *Lesquerella* were transferred to the genus *Physaria* based on molecular, morphological, distributional, and ecological data (Al-Shehbaz and O’Kane, Jr. 2002, p. 320). However, this taxonomic revision has not been incorporated into the List of Endangered and Threatened Plants (List) in title 50 of the Code of Federal Regulations (CFR) at § 17.12(h) (50 CFR 17.12(h)), and the species is still referred to as *Lesquerella congesta* on the List. Until that taxonomic revision has been made and the List has been updated, we continue to refer to Dudley Bluffs bladderpod as *Lesquerella congesta*.

Population trend monitoring plays a central role in evaluating the status of Dudley Bluffs bladderpod throughout the recovery process. The best available data for population trends come from the BLM Demographic Trend Monitoring Summary and Status Report (BLM 2024, summarized in Figure 1). Although these data come from discrete study sites within each population, we can extrapolate these trends across the species’ range. BLM has conducted annual monitoring across five different study sites annually for at least 10 years (BLM 2024).

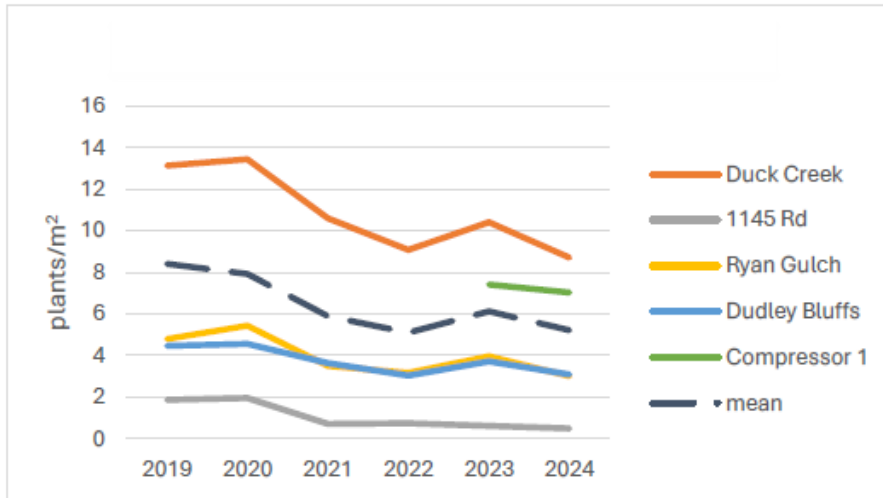


Figure 1. Dudley Bluffs bladderpod trends across five study sites from 2019 through 2024. Trend is determined by the change in mean plant density (average number of plants/square meter [ $m^2$ ]) across years. The mean trend is defined by using a ratio estimator, whereby the total of plants among all sites is divided by the average combined area of all sites. Note monitoring at the Compressor 1 site was reinitiated in 2023 after a 4-year pause.

Annual monitoring at four Dudley Bluffs bladderpod study sites revealed a slight increase from 2019 to 2020 (BLM 2020) followed by a declining trend in 2021 and 2022 (BLM 2021, 2022). Following above average precipitation in 2023, three of four study sites displayed an increasing trend with an increase in plant recruitment also observed (BLM 2023). Numbers at all five study sites visited in 2024 were lower than in 2023 following near-normal precipitation (BLM2024).

CNAP visits occurrences within four Colorado Natural Areas (CNAs) every three years, with the last visit occurring in 2024. One area has presence only information. The three areas have shown overall declines in population density since monitoring was initiated. Monitoring was initiated in 1996, 1998, and 2011 (CNAP 2021). CNAP discontinued triennial population trend monitoring in 2024 at the Dudley Bluffs and Duck Creek Natural Areas as BLM standardized annual monitoring occurs within those Areas of Critical Environmental Concern (ACEC). Monitoring continued at the third site in 2024, with data suggesting a stable population density since 2018 (CNAP 2024). Drought conditions have improved in all CNAs since 2021. Frequent wild horse use within Dudley Bluffs bladderpod occupied habitat was documented in two CNAs.

The Colorado Natural Heritage Program (CNHP) assigns ranks to each known occurrence of Dudley Bluffs bladderpod based on population size, condition of plants, quality of habitat, and landscape context. Of the seven known extant occurrences, four are ranked as A (excellent estimated viability); one is ranked as AB (good to excellent estimated viability) - which is a lesser ranking from its previous ranking of A; and two are ranked as B (good estimated viability) (CNHP 2023, entire).

#### **Conservation Efforts for Dudley Bluffs bladderpod:**

Multiple agencies are committed to the conservation and preservation of Dudley Bluffs bladderpod. Past and ongoing conservation actions include identification of Key Conservation

Areas (KCAs), designation of BLM ACECs designation of CNAP protected areas located on BLM lands, and various conservation projects funded by Federal grants, which we summarize below.

In 2023, a group of Federal state, local, and private stakeholders formed to implement priority recovery actions included in the recovery plan (Service 2020c) and associated RIS (Service 2020d). This group identified five Key Conservation Areas (KCAs) for Dudley Bluffs bladderpod to focus analysis and implement recovery actions aimed at reducing or ameliorating threats associated with habitat loss or degradation. These five KCAs are: Duck Creek East, Duck Creek West, Dudley Bluffs, Ryan Gulch, and Yellow Creek. The Dudley Bluffs and Ryan Gulch KCAs also include habitat for Dudley Bluffs twinpod.

BLM, through the White River Field Office, has designated four ACECs, three of which encompass roughly 54 percent of Dudley Bluffs bladderpod occupied habitat (Service 2021). These four ACECs protect approximately 9,247 acres of both Dudley Bluffs bladderpod and Dudley Bluffs twinpod habitat as well as and other resources. A BLM ACEC is a designation that highlights an area where special management attention is needed to protect important historical, cultural, and scenic values, protect fish and wildlife, or protect other natural resources (Service 2020c).

These ACECs are also designated Colorado Natural Areas and receive management support from CNAP. An additional 36,219-acre area is under review by the BLM to be designated as the *Physaria* ACEC and would encompass much of the remaining occupied Dudley Bluffs bladderpod and Dudley Bluffs twinpod habitat on BLM land (Service 2021).

Table 1. Acres of Dudley Bluffs bladderpod occupied habitat within three BLM ACECs.

<b>ACEC Name</b>	<b>Area</b>
Ryan Gulch	47.9 acres (19.38 hectares)
Dudley Bluffs	51.4 acres (20.80 hectares)
Duck Creek	541 acres (218.93 hectares)
<b>Total</b>	<b>640.3 acres (259.12)</b>

## **CONCLUSION:**

The Act defines an endangered species as any species that is "in danger of extinction throughout all or a significant portion of its range" and a threatened species as any species that is "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." After reviewing the best available scientific information, as documented in our biological report (Service 2020b) and summarized in this 5-year status review, we conclude that Dudley Bluffs bladderpod is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Although progress towards recovery has been made to provide protections for this species, the threats present at the time of listing, including mineral extraction and energy development, wildfire, invasive species, off-highway vehicle use (factor A); livestock and wild horse grazing (factor A and factor C); inadequacy of existing regulatory mechanisms (factor D); and small population sizes, limited geographic range,

and the effects of climate change (factor E) are present and ongoing. The evaluation of threats affecting the species under the factors in 4(a)(1) of the Act and analysis of the status of the species included in this 5-year status review does not change our evaluation of the species' status and the threats affecting the species. Following this review, we recommend no change in status under the Act for Dudley Bluffs bladderpod at this time.

**U.S. FISH AND WILDLIFE SERVICE**  
**5-YEAR STATUS REVIEW**  
**Dudley Bluffs bladderpod (*Lesquerella congesta*)**

**CURRENT CLASSIFICATION:** Threatened

**RECOMMENDATION RESULTING FROM THE 5-YEAR STATUS REVIEW:**

- Downlist to Threatened
- Uplist to Endangered
- Delist (Indicate reasons for delisting per 50 CFR 424.11):
  - Extinction
  - Recovery
  - Original data for classification in error
- No change is needed

**APPROPRIATE LISTING/RECLASSIFICATION PRIORITY NUMBER, IF APPLICABLE:**

**RECOMMENDATIONS FOR FUTURE ACTIONS:** *(optional, but may be helpful to identify priorities for management actions and information needs for next 5-year review)*

**Lead Field Office Approval:**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## LITERATURE CITED:

- Al-Shehbaz, I. A., and S. L. O’Kane, Jr. 2002. *Lesquerella* is united with *Physaria* (Brassicaceae). *Novon.* 12:319–329.
- Bureau of Land Management (BLM). 2020. Dudley Bluffs bladderpod and twinpod (*Physaria congesta* and *Physaria obcordata*) Population Trend Monitoring Summary. 15 pages.
- Bureau of Land Management (BLM). 2021. Dudley Bluffs bladderpod and twinpod (*Physaria congesta* and *Physaria obcordata*) Population Trend Monitoring Summary. 19 pages.
- Bureau of Land Management (BLM). 2022. Dudley Bluffs bladderpod and twinpod (*Physaria congesta* and *Physaria obcordata*) Population Trend Monitoring Summary. 20 pages.
- Bureau of Land Management (BLM). 2023. Dudley Bluffs bladderpod and twinpod (*Physaria congesta* and *Physaria obcordata*) Population Trend Monitoring Summary. 16 pages.
- Bureau of Land Management (BLM) 2024. Dudley Bluffs bladderpod (*Physaria congesta*) and Dudley Bluffs twinpod (*Physaria obcordata*) Population Trend Monitoring Summary. 22 pages.
- Colorado Natural Areas Program (CNAP). 2021. 2021 Field Report. 9 pages.
- Colorado Natural Areas Program (CNAP). 2024. 2024 Field Report. 8 pages.
- Colorado Natural Heritage Program (CNHP) 2023. Threatened and Endangered Plant Database Development, Field Surveys and Monitoring, 2023 Interim Progress Report. 43 pages.
- U. S. Fish and Wildlife Service (Service). 2020a. 5-year review: Dudley Bluffs (*Physaria [Lesquerella] congesta*) and Dudley Bluffs twinpod (*Physaria obcordata*). X pages
- U. S. Fish and Wildlife Service (Service). 2020b. Species biological report: Dudley Bluffs bladderpod (*Physaria [Lesquerella] congesta*) and Dudley Bluffs twinpod (*Physaria obcordata*). Grand Junction, Colorado. 43 pages.
- U. S. Fish and Wildlife Service (Service). 2020c. Final recovery plan for Dudley Bluffs bladderpod (*Physaria [Lesquerella] congesta*) and Dudley Bluffs twinpod (*Physaria obcordata*). U.S. Fish and Wildlife Service, Mountain-Prairie Region, Denver, Colorado. 14 pages.
- U.S. Fish and Wildlife Service (Service). 2020d. Recovery implementation strategy (RIS) for Dudley Bluffs bladderpod (*Physaria [Lesquerella] congesta*) and Dudley Bluffs twinpod (*Physaria obcordata*). U.S. Fish and Wildlife Service, Mountain-Prairie Region, Denver, Colorado. 17 pages.

U.S. Fish and Wildlife Service (Service) 2021. Programmatic Biological Opinion for Oil and Gas, Oil Shale, Nahcolite, and County Road Actions that May Affect Dudley Bluffs bladderpod and Dudley Bluffs twinpod in the Bureau of Land Management White River Field Office. 19 pages.