

Agency/Organization: US Geological Survey

Project Name: Seed Ecology of Threecorner Milkvetch

Project Number: 2023-USGS-2385A

Reporting Period: April 1, 2026 – June 30, 2026

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QUESTION 1: What did you accomplish during this reporting period? How did these accomplishments help you reach the goal of your project? If relevant, what indicators or benchmarks were used to determine your progress?

In late April 2026, we completed surveys (M17) for *Astragalus geyeri* var. *triquetrus* (ASGET) within and near plots we watered during winter-spring 2026 (see Project 2021-USGS-2075A for details on plot selection and watering). We located ASGET plants and assigned them to the herbivory (cage vs. no cage, M18), invasive plant competition (removal vs. intact neighbors, M19), and pollination treatments (bagged vs. unbagged flower buds, M22). By mid-June, we completed spring data collection (M24) and collected fruits from the senesced treatment plants (M25).

Fruits are currently being cleaned, and seeds are being counted and sorted in preparation for germination and viability testing.

These Milestones are instrumental towards Field Experiments 1 (Herbivory, Invasive Plant Competition, and Pollination Limitation) and 2 (Seed Longevity) and developing our final deliverables for this project.

QUESTION 2: What, if any, problems were encountered? Briefly describe those problems and the manner in which they were dealt.

Seedling emergence at Muddy River was so low this year that we could not locate and assign a full array of herbivory, competition, and pollination treatments. By the end of March, those seedlings we had located grew very little and did not reproduce. Concurrent to tracking these seedlings, we learned about seedling emergence at the nearby Weiser Wash population – 5.5 miles northwest of the Muddy River population – and we visited the site to determine if seedling emergence met our needs for this project. Finding sufficient seedlings that were still early in phenology, we obtained permission from BLM and Nevada Division of Forestry to amend our permits to cover research activities at this population.

Once permissions were obtained, we located ASGET plants within the Weiser Wash population and assigned them to the herbivory (cage vs. no cage, M18), invasive plant competition (removal vs. intact neighbors, M19), and pollination treatments (bagged vs. unbagged plants, M22). By mid-June, we completed spring data collection (M24) and collected fruits from the senesced treatment plants (M25).

QUESTION 3: What, if any, proposed activities were not completed? Briefly describe those activities, the reasons they were not completed and your plans for carrying them out.

None.

QUESTION 4: What is the calculated percent of work completed?

We are approximately 30% toward project completion.

**QUESTION 5: Do you foresee any upcoming problems with future project activities?
If so, how do you propose to overcome those problems?**

None anticipated.

QUESTION 6: Is there anything else you want to tell the DCP about this project?

We have nothing additional to note concerning this project.

QUESTION 7: What was produced during the reporting period?

During the reporting period, we produced this Quarterly Progress Report (D18).