

Agency/Organization: US Geological Survey

Project Name: Seed Ecology of Threecorner Milkvetch

Project Number: 2023-USGS-2385A

Reporting Period: July 1, 2025 – September 30, 2025

Project Contact Name and Information: Lesley DeFalco, Ph.D.; USGS, Western Ecological Research Center; 500 Date St., Boulder City, NV; 89005. (702) 294-6591. ldefalco@usgs.gov

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?

For our Seed Longevity Study, we collected the 12-mo buried bags of *Astragalus geyeri* var. *triquetrus* (ASGET) seed from habitat at Mud Lake and Mormon Mesa populations and from our Boulder City facility for the Sandy Cove site in mid-July and began lab incubation of seeds (M30). By mid-August, we completed lab incubation to determine germination (M31) and tested viability of the ungerminated seeds; we found similarly high seed viability for all populations when compared with the initial non-buried seed (M11). Seed germination and viability data are currently being entered and QA/QC'd in preparation for analysis across all burial dates. We will continue to retrieve these bags at three-month intervals during the first 15 months, and annually after that up to 4 years of burial.

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.

None.

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 22% 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 (D11).