

**Agency/Organization:** US Geological Survey

**Project Name:** Seed Ecology of Threecorner Milkvetch

**Project Number:** 2023-USGS-2385A

**Reporting Period:** April 1, 2025 – June 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 Herbivory, Invasive Plant Competition, and Pollination Limitation Study, we finished sorting and weighing seeds from the fruits retrieved from bagged and unbagged pollination treatments from Mormon Mesa and Mud Lake (2024). Data are being entered and QA/QC'd in preparation for analysis. For our Seed Longevity Study, we collected the 9-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-April and began lab incubation of seeds (M23). By mid-May, we completed lab incubation to determine germination (M26) 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 year, 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 20% 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 a Biennium Progress Summary Report (D09) and this Quarterly Progress Report (D08).