

Agency/Organization: University of Nevada, Las Vegas

Project Name: Pocket Mouse Conservation Physiology

Project Number: 2023-UNLV-2340b

Reporting Period: 1 April 2025 – 30 June 2025

Project Contact Name and Information:

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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?**

We have captured 15 *Chaetodipus* and completed respirometry for 8 of them. The minimum number of animals required for this portion of the project is 6. Our ultimate goal is to have at least 12 animals total for the respirometry experiments, 6 winter and 6 summer acclimated. We are doing some more respirometry on a second batch of individuals that was captured in summer to compare with the completed ones from winter trapping to evaluate if there are any signs of seasonal acclimation. We are currently analyzing the respirometry data in detail. Additionally, we have done temperature and dehydration experiments for 2-3 individuals for each of the 4 treatments, total of 10 animals which is half of the animals that will be used in the transcriptomics experiments.

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

No problems have been encountered during this quarter. All the respirometry is working well and experimental treatments conducted so far have been successful in showing physiological signs of water and/or heat stress. Everything is currently going well.

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.

All proposed activities up to this point have been completed.

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

50%

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

We currently do not foresee any upcoming problems.

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

No

QUESTION 7: What was produced during the reporting period?

Respirometry data, tissue samples, cell cultures, poster presentation of preliminary data presented at the annual meeting of the American Society of Mammalogists, 27 June-2 July.