

## **Quarterly Report**

**Agency/Organization:** The Great Basin Institute

**Project Name:** BCCE Desert Tortoise Telemetry and Health Assessments

**Project Number:** 2023-GBI-2330A

**Reporting Period:** October 1, 2024 – December 31, 2024

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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?**

This quarterly report documents the status of the BCCE Desert Tortoise Telemetry and Health Assessments (Year 1) conducted by the Great Basin Institute (GBI) for the fourth quarter of project number 2023-GBI-2330A; October 1, 2024 – December 31, 2024.

GBI was contracted by the Clark County Desert Conservation Program (DCP) to conduct line-distance sampling (LDS) surveys and telemetry surveys to estimate the population of the Mojave desert tortoise (*Gopherus agassizii*) in experimental translocation and control plots in Clark County, Nevada.

The overarching objectives of BCCE Desert Tortoise Telemetry and Health Assessments (Years 1-5) are to:

- Continue monitoring of resident and translocated desert tortoise started in 2014
- Collect telemetry data on up to 60 adult tortoises
- Acquire information regarding home range size, settling rates, survival, and habitat use for resident and translocated populations of desert tortoise
- Collect health data on all tortoises

Objectives Completed this Quarter:

- Radio telemetry monitoring took place October 1, 2024 – December 31, 2024
- 33 telemetered tortoises in total were tracked (17 resident and 16 translocated)
  - Of these 33 tortoises, five were reported deceased by the end of the quarter

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

No issues were encountered during this quarter.

**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.**

Project activities are on track at this time.

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

It is estimated that 100% of the project has been completed for Year 1 at this time.

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

No future problems are foreseen for upcoming project activities at this time.

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

Telemetered tortoises are monitored using a VHF receiver and directional antenna. Location data is collected on each individual at least once monthly November through February, and weekly March through October. As batteries run out, transmitters will be replaced following USFWS protocol, typically during spring and fall when tortoises are most likely to be active above ground.

All data are recorded in the field on paper datasheets and electronically using Apple iPad-mini tablets running ArcGIS Survey123. Data is downloaded into a master database each month and assessed for consistency and errors.

**QUESTION 7: What was produced during the reporting period?**

From October 1, 2024 – December 31, 2024, 16 resident and 18 translocated tortoises were monitored in the BCCE (Table 1). Telemetry was conducted over 31 days with 242 observations. Individuals were observed 7 to 9 times over the course of the reporting period. Two tortoises were observed only 5 and 6 times and are listed as follows. Tortoises CC0814 (12/10/24), CC0810 (11/10/24), CC0114, EV4241, and EV4232 (12/21/24) were found dead. No tortoises were reported missing this quarter.

During the reporting period, the master database was updated, reviewed for quality control, corrected when necessary, and submitted to the DCP on a monthly basis along with scanned datasheets. GBI completed the annual presentation for DCP.

Table 1. BCCE observations of tortoises by telemetry from October 1, 2024 – December 31, 2024.

Status	Tortoises Transmitted	Tortoises Deceased	Tortoises Missing	Number of Days	Total Observations	Average Observations per Day
Resident	17	1	0	29	124	4.28
Translocated	16	4	0	29	118	4.06

TOTAL	33	5	0	31	242	7.81
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**Please report on the status of each Milestone and Deliverable, indicate whether they are not started, in progress, or completed and provide comments on the status as necessary.**

<b>Date Due</b>	<b>Deliverable / Milestone #</b>	<b>Deliverable / Milestone Title</b>	<b>Completed</b>
April 1, 2024	M01	Contract Award and Mobilization	Yes
April 12, 2024	M02	Project Kick-off Meeting	Yes
April 12, 2024	M03	Mobilization and Supply Order	Yes
April 15, 2024	D01	Data Management Plan	Yes
April 15, 2024	D02	Quarterly Progress Report (Project Start – April. 10, 2024)	Yes
April 16, 2024	D03	Monthly Data Upload	Yes
April 30, 2024	D04	Monthly Data Upload	Yes
May 15, 2024	D05	Monthly Data Upload	Yes
May 31, 2024	D06	Monthly Data Upload	Yes
June 31, 2024	D07	Monthly Data Upload	Yes
July 5, 2024	D08	Quarterly Progress Report (April 1, 2024 – June 30, 2024)	Yes
July 31, 2024	D09	Monthly Data Upload	Yes
August TBD, 2024	M04	2024 Annual Project Review Presentation (If Requested)	Yes
August 31, 2024	D10	Monthly Data Upload	Yes
September 30, 2024	D11	Monthly Data Upload	Yes
October 5, 2024	D12	Quarterly Progress Report (Jul 1, 2024 – Sept 30, 2024)	Yes
October 31, 2024	D13	Monthly Data Upload	
November 30, 2024	D14	Monthly Data Upload	
December 15, 2024	D15	Monthly Data Upload	
December 20, 2024	D16	Annual Project Data	
December 20, 2024	D17	Annual Project Report	
December 21, 2024	M05	Debriefing Meeting	

December 31, 2024	N/A	Year 1 Close-Out	
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