Quarterly Report

Agency/Organization: The Great Basin Institute

Project Name: BCCE Desert Tortoise Telemetry and Health Assessments – Year 1

Project Number: 2023-GBI-2330A

Reporting Period: April 1, 2024 – June 30, 2024[1]

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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 Mojave desert tortoise (*Gopherus agassizii*) telemetry surveys done by the Great Basin Institute (GBI) at the Boulder City Conservation Easement (BCCE). The Clark County Desert Conservation Program (DCP) and the U.S. Fish and Wildlife Service (USFWS) translocated Mojave desert tortoises from the Desert Tortoise Conservation Center to the northeast portion of the BCCE. GBI was contracted by the DCP to conduct telemetry surveys to monitor resident and translocated tortoises in the BCCE. Initial telemetry monitoring began October 6, 2014, following translocation. This document provides information on telemetry surveys conducted April 1, 2024 – June 30, 2024 in Year 1 for project number 2023-GBI-2330A*.

Telemetry surveys were conducted on 38 animals, for a total of 469 observations. Surveys were conducted on 20 resident tortoises and 18 translocated tortoises affixed with semi-permanent transmitters. Data for this project were recorded with paper and electronic data collection units (iPad minis with Survey123 app). Electronic data were uploaded into an ArcGIS Online database and then downloaded into a Microsoft Access database where they were verified, examined for errors, and corrected using automated QA/QC scripts and manual checks following USFWS and DCP protocol.

Project Goals and Objectives:
- Monitor tortoises for 5 years
- Acquire information regarding home range, settling rates, survival, and habitat use
- Conduct health assessment of tortoises

Objectives Completed this Quarter:
- Radio telemetry monitoring took place April 1, 2024 – June 30, 2024 *
- 38 telemetered tortoises were tracked (20 resident and 18 translocated)
- Health Assessment Progress Report completed and submitted

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

No problems were encountered 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.

All required monitoring was completed this quarter.

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

For this reporting period, project activities began April 1, 2024. Field work for this project is about 50% completed for Year 1. More progress is expected in the next quarter, as telemetry monitoring continues.

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 year-round 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. No transmitters were replaced this quarter.

QUESTION 7: What was produced during the reporting period?

From April 1, 2024 – June 30, 2024, 20 resident and 18 translocated tortoises were monitored in the BCCE (Table 1). Telemetry was conducted over 53 days with 469 observations. Individuals were observed 11 to 14 times over the course of the reporting period. Four tortoises were observed only 9-10 times and are listed as follows. Tortoises GS4482 and CC0811 were found dead on June 6, 2024 and June 14, 2024, respectively. The detached transmitter of one tortoise, GS4497, was found on June 8, 2024. It is not included in the total number of tortoises (but is tallied as missing in Table 1 below).

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

Table 1. BCCE observations of tortoises by telemetry from April 1, 2024 – June 30, 2024.

Status	Tortoises Transmittered	Tortoises Deceased	Tortoises Missing	Number of Days	Total Observations	Average Observations per Day
Resident	20	0	0	52	241	4.6
Translocated	18	2	1	51	228	4.5
TOTAL	38	2	1	53	469	8.8

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.

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