

Desert Tortoise Monitoring



Project # 2017- GBI- 174 1A
Project # 2023- GBI- 2330A
Project # 2023- GBI- 2325A

Partners





Largest crew
Special
Thanks

Scott
Corey
Jay
Tortoise
Group
James
Ayla
Taryn
Sarah
Crew

Training

Mar 11-29,
2024



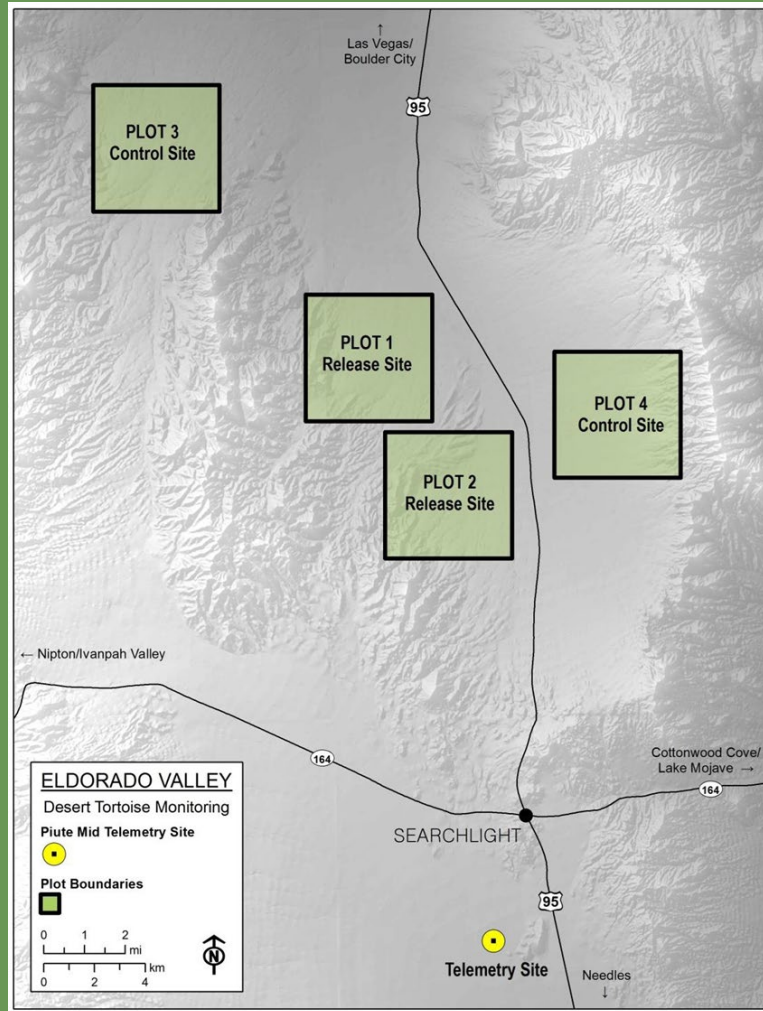
Eldorado Valley Post Translocation Surveys

Project # 2017- GBI- 1741A Year 2

Overview

- 2014 Collect data on resident tortoises prior to translocation
- Post-translocation (2015-2016, 2023-2024)
- Help understand and assess population augmentation
- Monitor the effectiveness of translocation by comparing two control sites to two release sites





Single Observer Transects



- Line distance sampling protocols
- 5 km parallel transects oriented east-west, 50 m apart
- 2 transects per day
- Transect and Opportunistic tortoise and carcass observations
- Unmarked tortoises were tagged if possible.
- Data included; location, sex, MCL, BCS and tags

Observations

- 1 April - 16 May 2024
- 400 assigned transects
- 92 tortoises (103 - 2023)
 - 87 Transect
 - 5 Opportunistic
- 140 carcasses (117 - 2023)
 - 129 Transect
 - 11 Opportunistic



Telemetry



- Piute Valley (Piute-Mid) southwest of Searchlight, NV
- Estimate proportion of tortoises active or visible while transects are surveyed
- Data used to calibrate the results of transect surveys

Telemetry

Stratum	Transmitter Equipped Tortoises	Survey Days	Observations	Average Obs. per Day
Piute- Mid	16	29	1409	48.57

Boulder City Conservation Easement Desert Tortoise Telemetry

Project # 2023-GBI-2330A Year 1

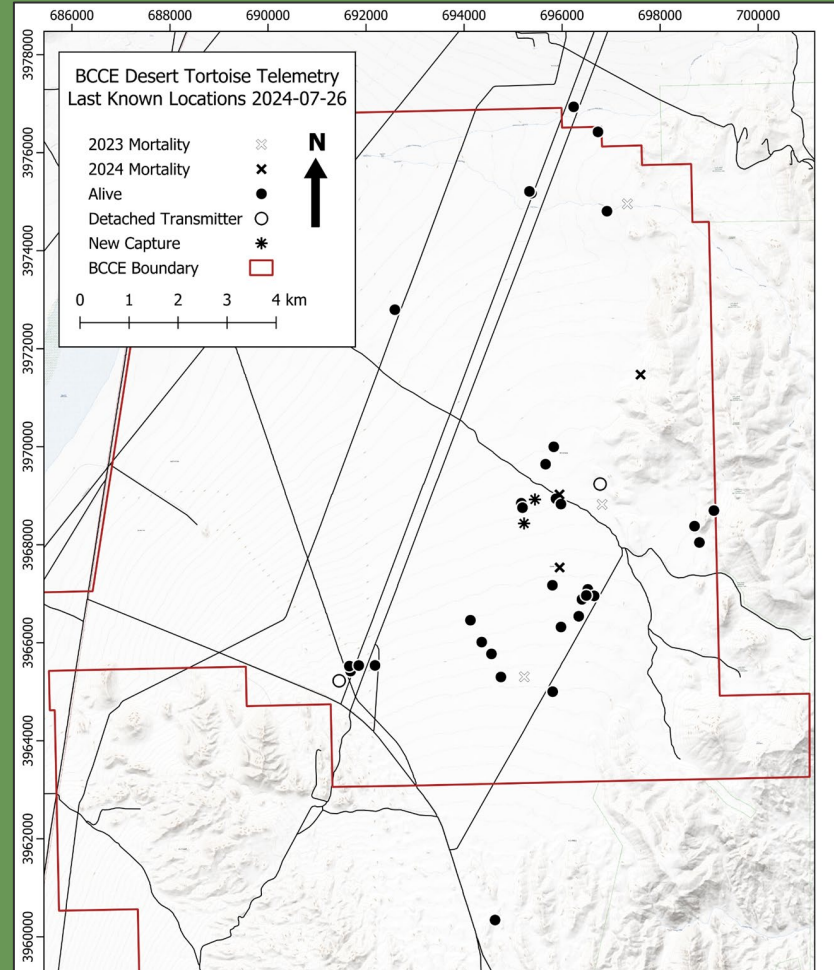
Overview

- Began monitoring in Oct 2014
- Help understand and assess population augmentation
- Study survivorship and movement patterns of resident and translocated desert tortoise



BCCE 2024 Monitoring

- 796 Observations
- 19 resident
- 18 translocated
- Weekly observations
Mar-Oct
- Monthly observations
Nov-Feb



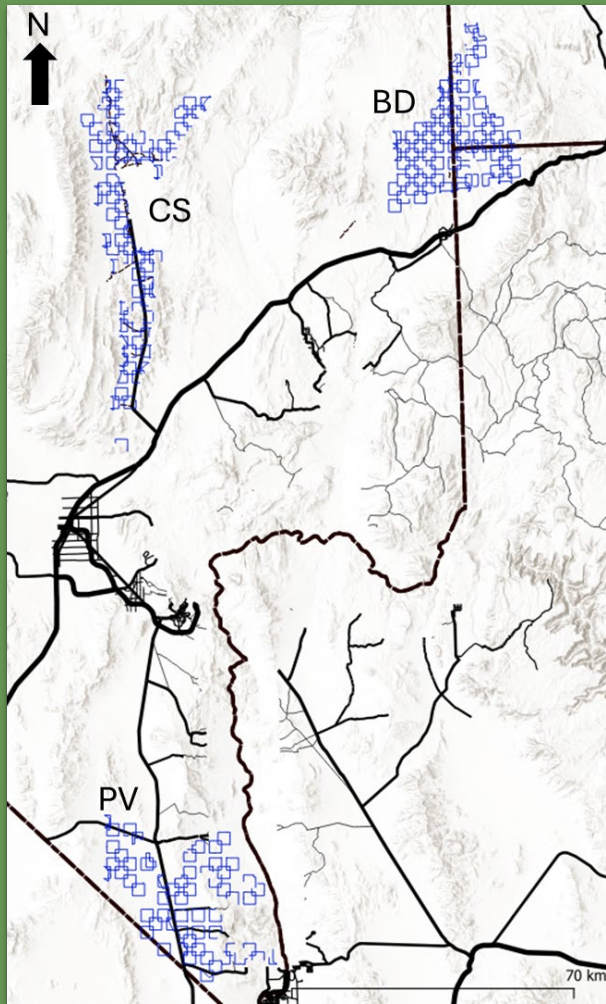
Range-Wide Desert Tortoise Monitoring

Project 2023-GBI-2325A Year 1

Overview

- Continuation of Range-wide monitoring efforts
- Support recovery program efforts for the desert tortoise through range-wide monitoring using LDS protocols
- Year 1 of 5





12 km square transects,
teams of 2 (25 meters
apart)

Randomly assigned walk
order

Transects are not walked
as perfect squares

Reflected for stratum
boundaries and man-made
obstacles

Interrupted for non
surveyed terrain

Observations



April 1 - May 13

213 assigned transects

62 tortoises

52 transect

10 opportunistic

76 carcasses

68 transect

8 opportunistic

Telemetry

Stratum	Transmitter Equipped Tortoises	Survey Days	Observations	Average Obs. per Day
Piute- Mid	16	11	500	45.5
Halfway Wash	14	23	845	36.7

*G0 observations occurred simultaneously in Piute-Mid and Halfway Wash between 4/8 and 4/12 while crews were divided between the Piute Valley and Coyote Springs strata.



What's Next

BCCE telemetry

2024-2028

Range-wide Monitoring

2025 - 2028

213 transects

6 stratum

Questions?

