

Tortoise Occupancy on the BCCE

Project: 2023-BIO-2325D

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Funding & Agency Partners:

- Southern Nevada Public Land Management Act (SNPLMA)
- Agreement #L08AC13225 (Clark County & BLM)
- Land Sales Through SNPLMA Fund Multiple Species Habitat Conservation Plan (MSHCP)



desert conservation
PROGRAM



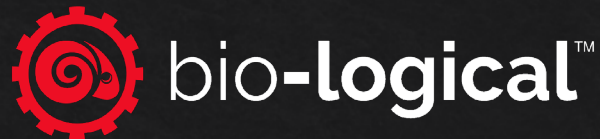
togetherforbetter



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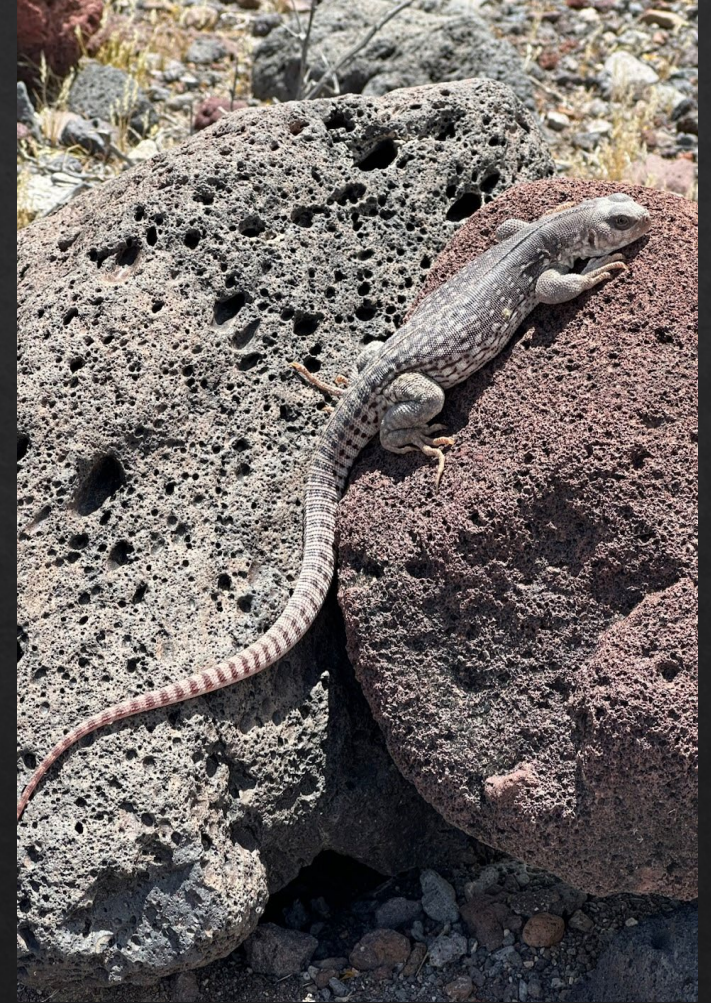
Purpose

The data from this project can be used to develop a statistical model to understand and predict the occurrence of desert tortoises in similar landscapes and supports conservation of the species as required by the MSHCP.



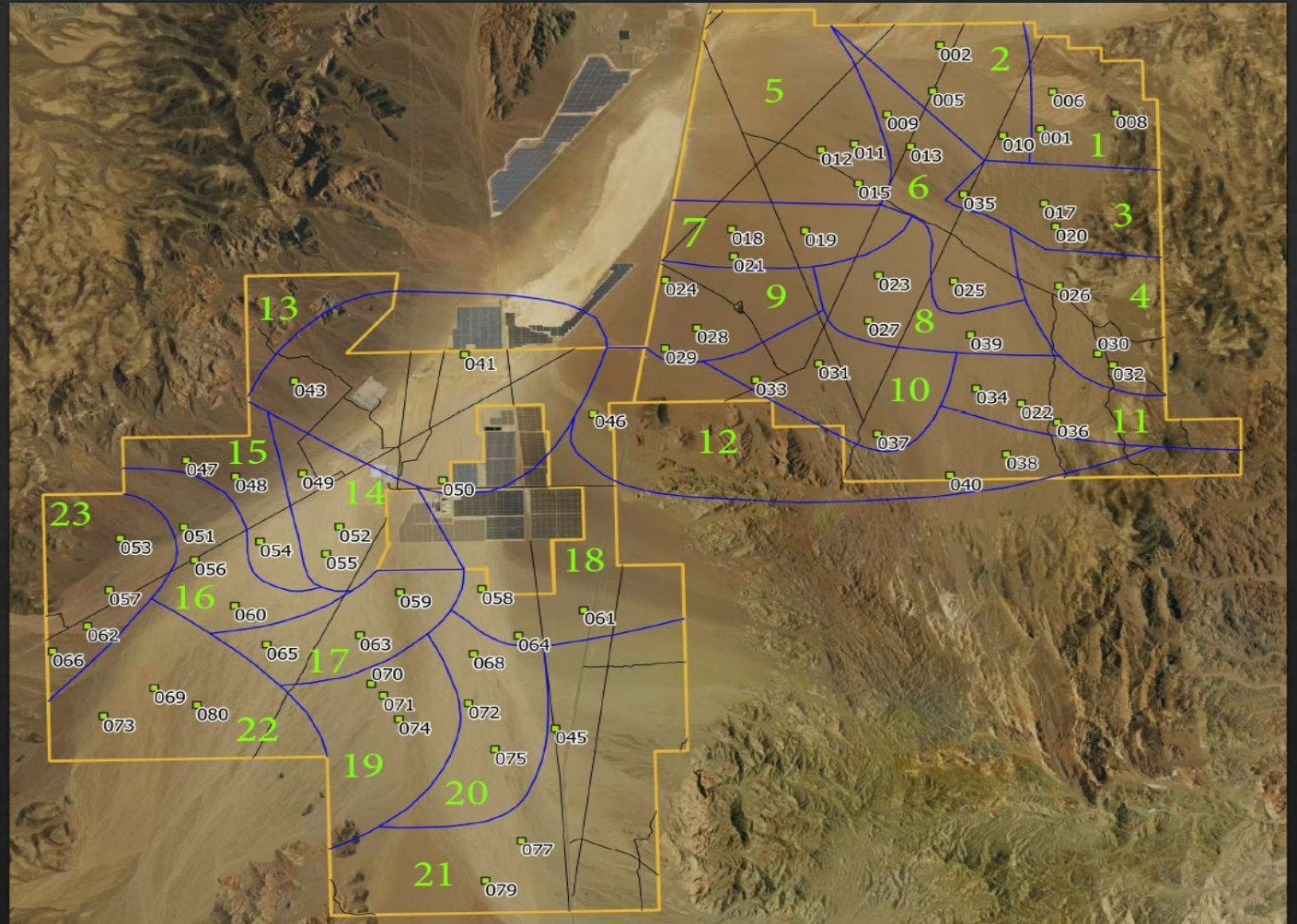
Methodology

- Work Plan
 - 3 plots (1 group) per team per day. Two teams per day.
 - Occasional 1 team day or 3 team days due to schedule.
- Fieldwork Timeline
 - Started April 3, 2026
 - Completed May 20, 2026
- Issues
 - Terrain and access



Plot Layout

- 70 200M x 200M plots
- Full coverage transects
- 23 plot groups
- 3 plots per day per team
- 3 rounds
 - N - S, E - W, N - S
 - Start at NW corner
- 210 plot surveys total
- Incidental observations between plots captured.



Data Summary

Data Collection 2026

	Total Observations	In Plot	Incidental
Active Burrow / Den	35	23	12
Live Tortoise	26	14	12
Reptile Observation	54	38	16
Tagged Carcass	0	0	0

Data Summary

Active Burrow Data Comparison 2020 - 2026

	Total	Occupied	Unoccupied	Avg Height	Avg Width	In Plot	Incidental
2020	9	6	3	N/A	N/A	5	4
2021	25	22	3	N/A	N/A	13	12
2022	41	22	19	13	40	20	21
2023	25	19	6	13	27	12	13
2024	22	13	9	14.5	28	10	12
2025	47	30	17	12.2	26.9	30	17
2026	35	14	21	12.8	28.8	23	12

Data Summary

Live Tortoise Data 2026

	Live Torts	Max MCL	Min MCL	Avg MCL	Has Tag	New Tag	No / Unk Tag
Male	5	228	212	221	0	5	0
Female	12	242	191	220	5	7	0
Unknown	9	174	108	143	2	3	4
Totals	26	242	108	200	7	15	4
New Tags	15	233	108	201	N/A	N/A	N/A

Data Summary

Live Tortoise Data Summary 2020 - 2026

	Live Torts	Male	Female	Unk	Max MCL	Min MCL	Avg MCL	Has Tag	New Tag	No Tag
2020	44	10	16	18	270	65	193	10	22	12
2021	30	11	10	9	294	115	197	10	17	3
2022	29	7	5	17	238	119	189	2	13	14
2023	38	8	13	17	300	106	211	14	15	9
2024	41	8	20	13	293	114	208	13	21	7
2025	47	4	11	20	292	43	186	14	12	6
2026	26	5	12	9	242	108	200	7	15	4

Data Summary

Reptile Data 2026

	In Plot	Incidental	Totals
Coachwhip	1	2	3
Mojave Rattlesnake	1	1	2
Sidewinder	4	0	4
Western Patch-nosed snake	1	0	1
Desert Collared Lizard	2	0	2
Desert Horned Lizard	12	5	17
Desert Iguana	6	5	11
Long-Nosed Leopard Lizard	11	3	14
Totals	38	16	54

Data Summary

Reptile Data 2020 - 2026

	2020	2021	2022	2023	2024	2025	2026
Coachwhip	2	1	0	1	2	0	3
Mojave Rattlesnake	1	0	1	1	0	3	2
Sidewinder	4	3	0	5	15	1	4
Western Patch-nosed snake	2	1	0	1	1	0	1
Desert Collared Lizard	0	0	0	1	0	4	2
Desert Horned Lizard	6	1	2	3	31	29	17
Desert Iguana	2	3	1	8	11	8	11
Long-Nosed Leopard Lizard	10	2	3	6	19	3	14
Totals	27	11	7	26	79	48	54

Data Summary

Tagged Tortoise Carcass Data Comparison 2020 – 2026

	Male	Female	Unk	MCL	Tag(s)
2020	0	0	0	N/A	N/A
2021	0	0	1	50	N/A*
2022	1	0	0	N/A	CC0808
2023-1	1	0	0	257	CC0125
2023-2	1	0	0	216	EV3963
2024	1	0	0	226	C
2025	3	0	0	1 – 264 2 – 244 3 – 197	1 – CC0339 2 – CC0143 3 – CC0103
2026	0	0	0	N/A	N/A



*untagged but noted due to fresh condition

Acknowledgements

- Clark County Logo. Digital image. N.p., n.d.Web. Aug 2023.
<https://en.wikipedia.org/wiki/File:Seal_of_Clark_County,_Nevada.svg>.
- Desert Conservation Program Logo. Digital image. N.p., n.d.Web. Aug 2022.
<https://mojavemax.com/wp-content/uploads/2016/12/DCP_Logo_Small.jpg>.
- Desert Tortoise Occupancy Sampling at the Boulder City Conservation Easement; D25 Year 3, Annual Project Report. June 15, 2022. PN 2021-BIO-2020D , Bio Logical.
- MSHCP
https://www.clarkcountynv.gov/government/departments/environment_and_sustainability/desert_conservation_program/current_mshcp.php. Web, Aug 2022

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