



Tule Springs Fossil Beds National Monument



LeConte's Thrasher Survey Project (2022-2024) *Toxostoma lecontei*

Desert Thrasher Working Group:

Multi-agency and non-profit collaboration studying
LeConte's and Bendire's Thrashers in the arid
southwestern U.S. and northern Mexico



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NPS/John Mark Simmons

LeConte's Thrasher (*Toxostoma lecontei*)





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- Conservation Status:
- BLM Sensitive
- USFWS Bird of Conservation Concern
- IUCN Red List Least Concern
- Partners in Flight Red List
- Sonoran Joint Venture species of continental concern requiring management action
- Essentially, no significant protections

NPS/John Mark Simmons



- Population loss since 1970: 67%
- Urgency/Half Life: 27 years (time until population is reduced by half again)
- Insufficient data on distribution and occupancy make meeting management goals challenging across a wide and rugged range



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Threats to LeConte's Thrasher

- Energy development projects
- Land conversion to agriculture
- Other forms of habitat disturbance
- Invasive plants/fire are understudied but likely play a role



Photo from bouldercity.com



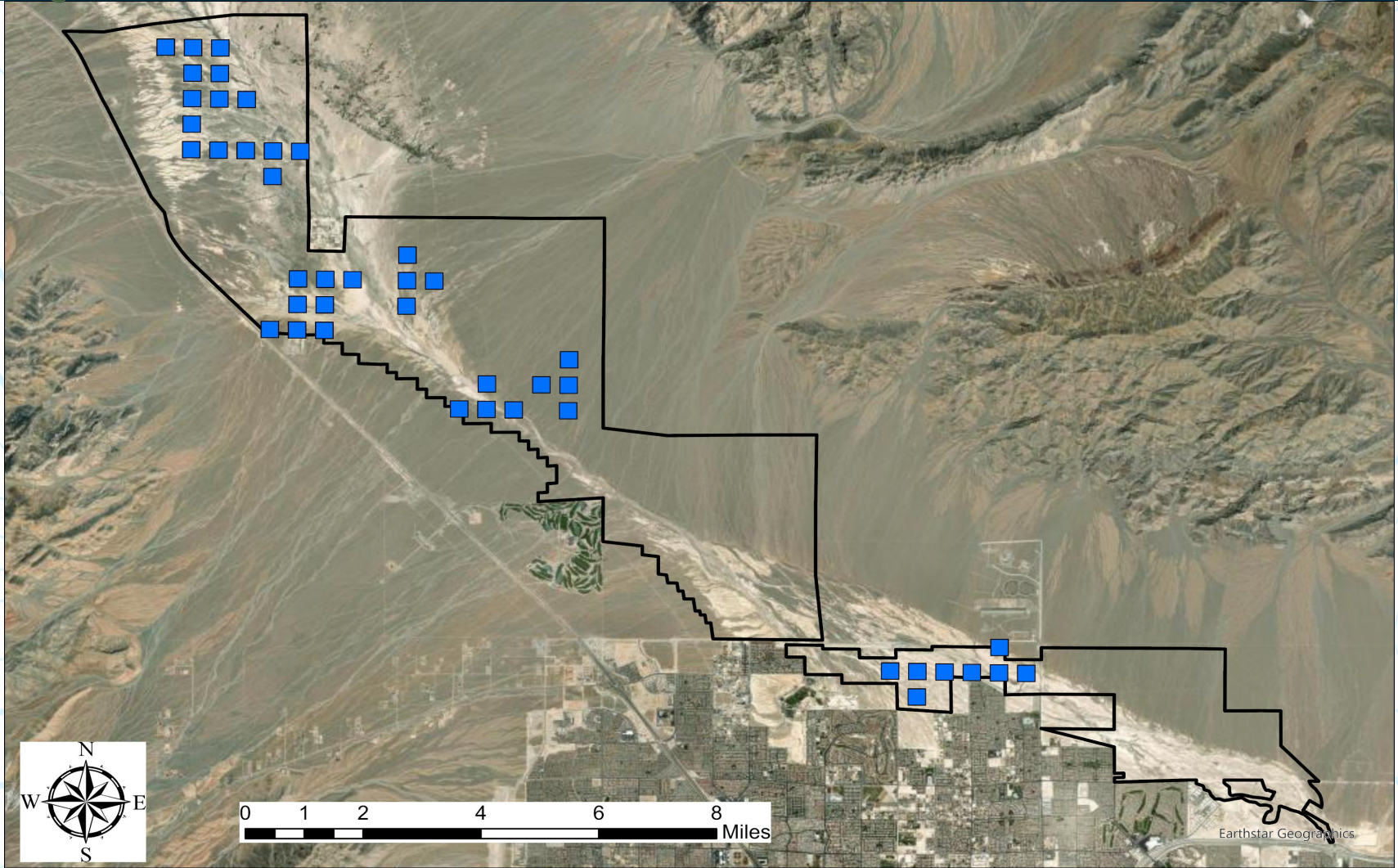
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- Protocol
- $300m^2$ plots
- $n = 33$
- 40-minute duration
- Transects spaced 50 m
- Record all species detected on plot
- Target species requires additional data sheets with more detailed entries
- Left photo: Example of prime thrasher habitat including a small wash with native vegetation



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LeConte's Thrasher Detections - Tule Springs Fossil Beds National Monument

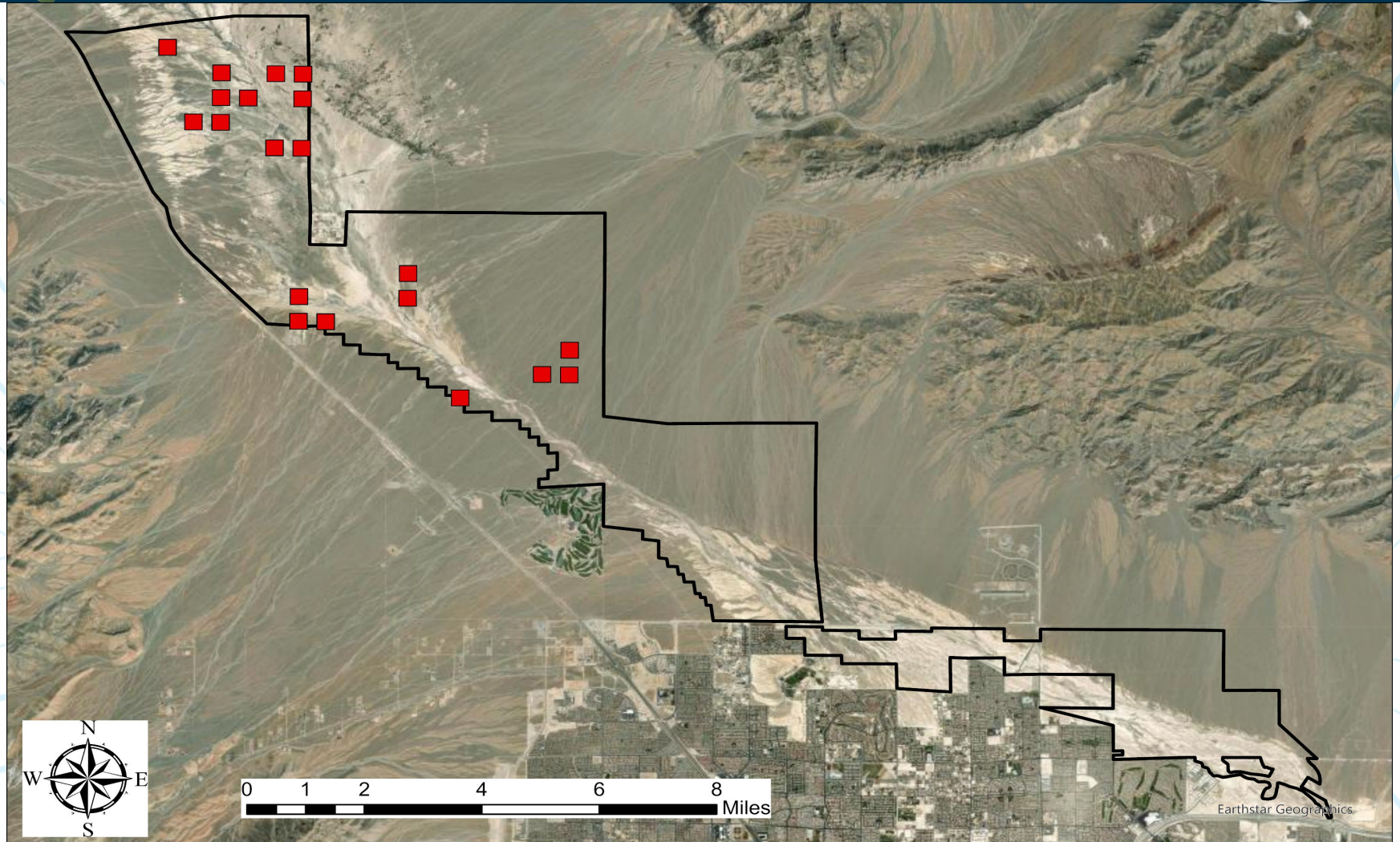
Legend

- BIRD_SurveyLocations
- ▭ TUSK





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LeConte's Thrasher Detections - Tule Springs Fossil Beds National Monument

Legend

- LeConte's Thrasher Detections
- TUSK





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Results

- 88 species recorded
- LCTH was detected on 20/33 plots for a total of 76 detections over 264 visits
- Special Status species recorded include Pinyon Jay, Western Burrowing Owl, Cooper's Hawk, Verdin, American Pipit, Peregrine Falcon, Prairie Falcon, Loggerhead Shrike, Phainopepla, Brewer's Sparrow, Bell's Sparrow, Crissal Thrasher, Sage Thrasher, Bank Swallow, Costa's Hummingbird, Gray Flycatcher, Lucy's Warbler.
- Other interesting records = Lapland Longspur, Lark Bunting, and an Osprey roosting on a Joshua Tree out in open desert



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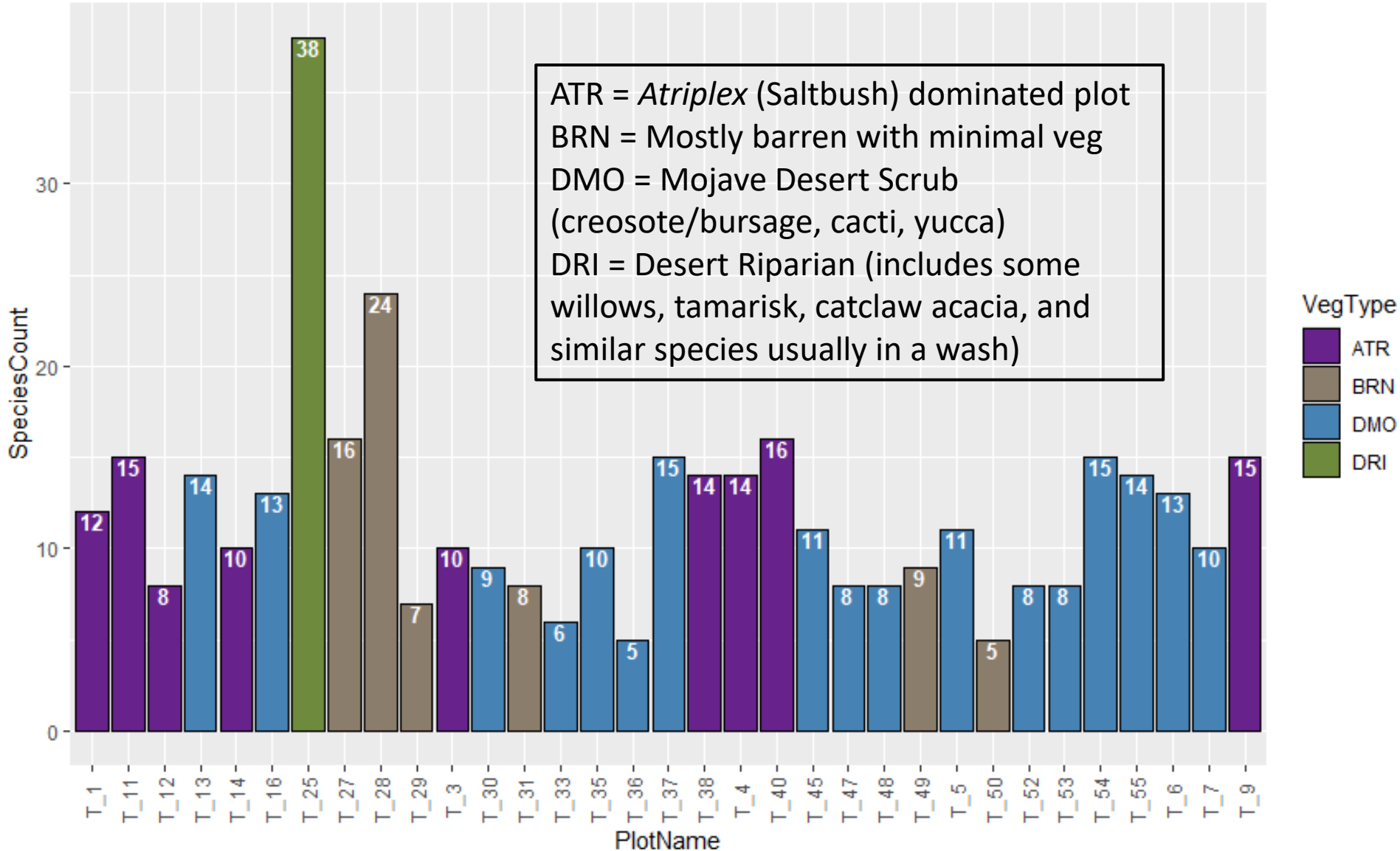
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Species Diversity by Plot

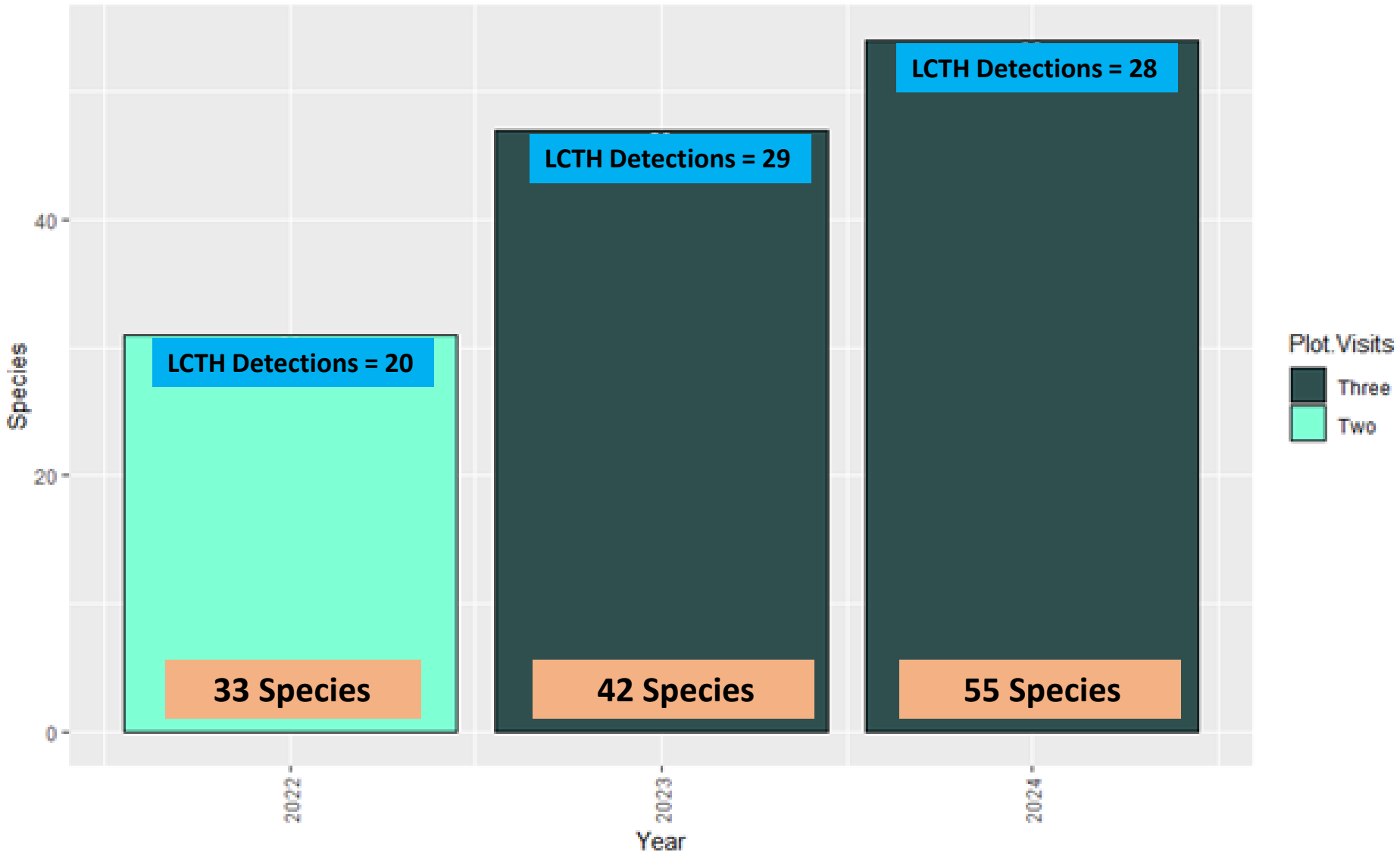




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Species Diversity by Year | Top Number = Number of LCTH Detections





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So, is The Data Doing Anything?



- Yes!
- Thanks in part to the efforts of the DTWG and data such as this, the Bureau of Land Management now requires surveys to be conducted specifically for LeConte's, Bendire's, and Crissal Thrashers for development projects occurring on public land.



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Other Contributions of This Data

- Updated bird species list including adding records to NPSpecies
- Contributed to other species of interest such as Pinyon Jay, Loggerhead Shrike, and Bell's Sparrow
- One of the most consistently surveyed sites among DTWG plots
- Provides an opportunity to collect long-term avian survey data in a protected area facing complete development on >50% of its' borders
- Reports published on NPS Data Store



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Acknowledgements

- DTWG Team, especially Dawn Fletcher and Lauren Harter from GBBO.
- TUSK NPS Team, especially Erin Eichenberg and Lauren Parry
- Point Blue Conservation Science and the Avian Knowledge Network data portal



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Questions?

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Nestling Loggerhead Shrikes
Found on Survey in Joshua Tree