

**Nevada Department of Wildlife
Predator Management Plan
Fiscal Year 2024**

SAVE THE DATE

Nevada **Department** of Wildlife

Mule Deer Enhancement Summit

August 17-19, 2023

Winnemucca Convention Center

50 W Winnemucca Boulevard, Winnemucca, Nevada

A summit intended for Mule Deer Enhancement Program team members, County Advisory Board members, Wildlife Commissioners, biologists, land managers, sportsmen, and any interested members of the public.

For sponsorship opportunities, please email ndowgame@ndow.org.

Block of rooms available soon.



Summary on Plans and Reports

- Just reported on FY 2022
- Currently in FY 2023
- Presenting on FY 2024
- All available at website. Email pjackson@ndow.org for immediate request
- Updated \$3 Predator Fee bibliography coming up

NRS 502.253 (predator fee)

- ~\$900,000 generated annually
- \$14,000 admin support Dept. of Agriculture
- Predator plan projects
- Staff salary
- Reserve remains available for future years

NRS 502.253

1. Management of predatory wildlife
2. Research on lethal control techniques of predatory wildlife
3. Protection of sensitive species

NRS 502.253

- Mandates that 80% of revenues from most recent fiscal year from which we have complete accounting to be spent on lethal removal
- Includes monitoring of effects from lethal removal efforts

Input Opportunities

1. January Commission Meeting
2. PARC meeting
3. WDMC today
4. March Commission meeting
5. May Commission meeting
6. All supporting CAB meetings
7. Contact me directly pjackson@ndow.org

Budget Summary

- \$911,013 revenues from FY 2022 (last year with complete accounting, still receiving revenue in FY 2023)
- $\$911,013 \times 0.8 = \$728,810$ (80% mandate)
- \$934,000 allocated to lethal removal in FY 2024 plan

Project Types and Monitoring

Project Type

1. Implementation
2. Experimentation
3. Experimental Management

Monitoring

1. Standard Monitoring
2. Intermediate Monitoring
3. Rigorous Monitoring

Project Types and Monitoring

Project Type

Monitoring

- | | |
|----------------------------|----------------------------|
| 1. Implementation | 1. Standard Monitoring |
| 2. Experimentation | 2. Intermediate Monitoring |
| 3. Experimental Management | 3. Rigorous Monitoring |

Projects Recommended for Continuation



Project 21: Greater Sage-Grouse Protection (Common Raven Removal)

Budget:\$175,000

- Wildlife Services administers corvicide (DRC-1339)
- Surveys and models to determine common raven densities across Nevada



Project 22-01: Mountain Lion Removal to Protect California Bighorn Sheep

Budget: \$100,000

- Establish self-sustaining population of bighorn sheep, subset of population is currently collared
- Wildlife Services and private contractors are proactively removing lions entering area
- Wildlife Services or others may respond reactively with dogs after a sheep mortality

Project 22-074: Monitor Rocky Mountain Bighorn Sheep for Mountain Lion Predation

Budget: \$20,000

- Establish self-sustaining population of bighorn sheep
- Monitor bighorn sheep populations with GPS collars
- Remove mountain lions consuming bighorn sheep

Project 37: Big Game Protection- Mountain Lions

Budget: \$100,000

- Addressing population limiting predation by mountain lions
- Work will be conducted by Wildlife Services, private houndsmen, and/or private trappers
- Problematic mountain lions will be identified through GPS collar locations, trail cameras, and kill sites

Project 38: Big Game Protection- Coyotes

Budget: \$100,000

- Addressing coyote predation that has a negative influence on game populations
- Removal of coyotes in pronghorn and deer winter range and fawning areas in certain situations
- Work will be conducted by Wildlife Services and private contractors

Project 40: Coyote and Mountain Lion Removal to Complement Multi-faceted Management in Eureka County

Budget: \$150,000

- Coyote and lion removal will complement previously conducted feral horse removal, habitat improvement, and past predator removal efforts

Project 41: Common Raven Experimentation

Budget: \$300,000 (25% from \$3 predator fee)

- Develop a protocol to estimate common raven populations
- Increase the understanding of common raven density and distribution
- Increase the understanding of how human subsidies affect common raven movements and space use

Project 42: Assessing Mountain Lion Harvest in Nevada

Budget: \$20,000 (25% from \$3 predator fee)

- Refine existing model
- Develop R-Shiny tool
- Publish existing model

Project 43: Mesopredator removal to protect waterfowl, turkeys, and pheasants on Wildlife Management Areas

Budget: \$50,000

- To occur on Overton and Mason Valley WMAs
- Coyotes, striped skunks, and raccoons will be lethally removed

Project 44: Lethal Removal and Monitoring of Mountain Lions in Areas 23 and 24

Budget: \$125,000

- To occur primarily in areas 23 and 24
- Mountain lions in collar area will be captured and collared. Any collared lion killing bighorn sheep will be lethally removed
- Increase understanding of lion and horse interaction

Project 45: Passive Survey

Estimate of Black Bears in Nevada

Budget: \$20,000 (25% from \$3 predator fee)

- To occur primarily in areas inhabited by black bears

Project 46: Investigating Potential Limiting Factors Impacting Mule Deer in Northwest Nevada

Budget: \$160,000 (25% from \$3 predator fee)

- To occur in northwest Nevada

Newly Proposed Projects



Project 47: Mule Deer
Enhancement Program Mule Deer
Protection and Assessment

Project Type: Implementation or Experimental
Management

Project 47: Mule Deer
Enhancement Program Mule Deer
Protection and Assessment

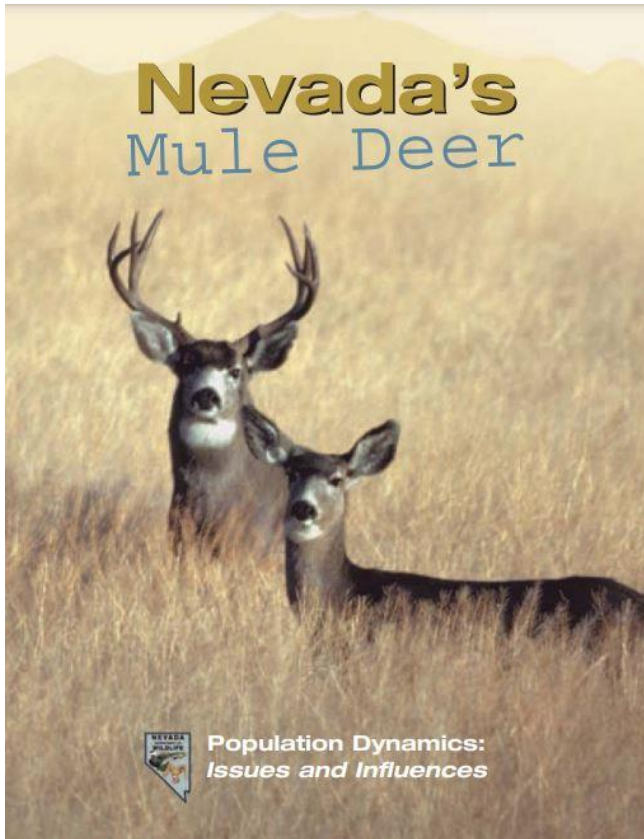
Budget: \$100,000

- Statewide

Project 47: Mule Deer Enhancement Program Mule Deer Protection and Assessment

1. Identify predation as a limiting factor for mule deer
2. Build model to direct predator control temporarily and spatially

Population Dynamics



Statewide Mule Deer Population Estimate as it Relates to Average Monthly Precipitation Received July - September 1976 - 2000

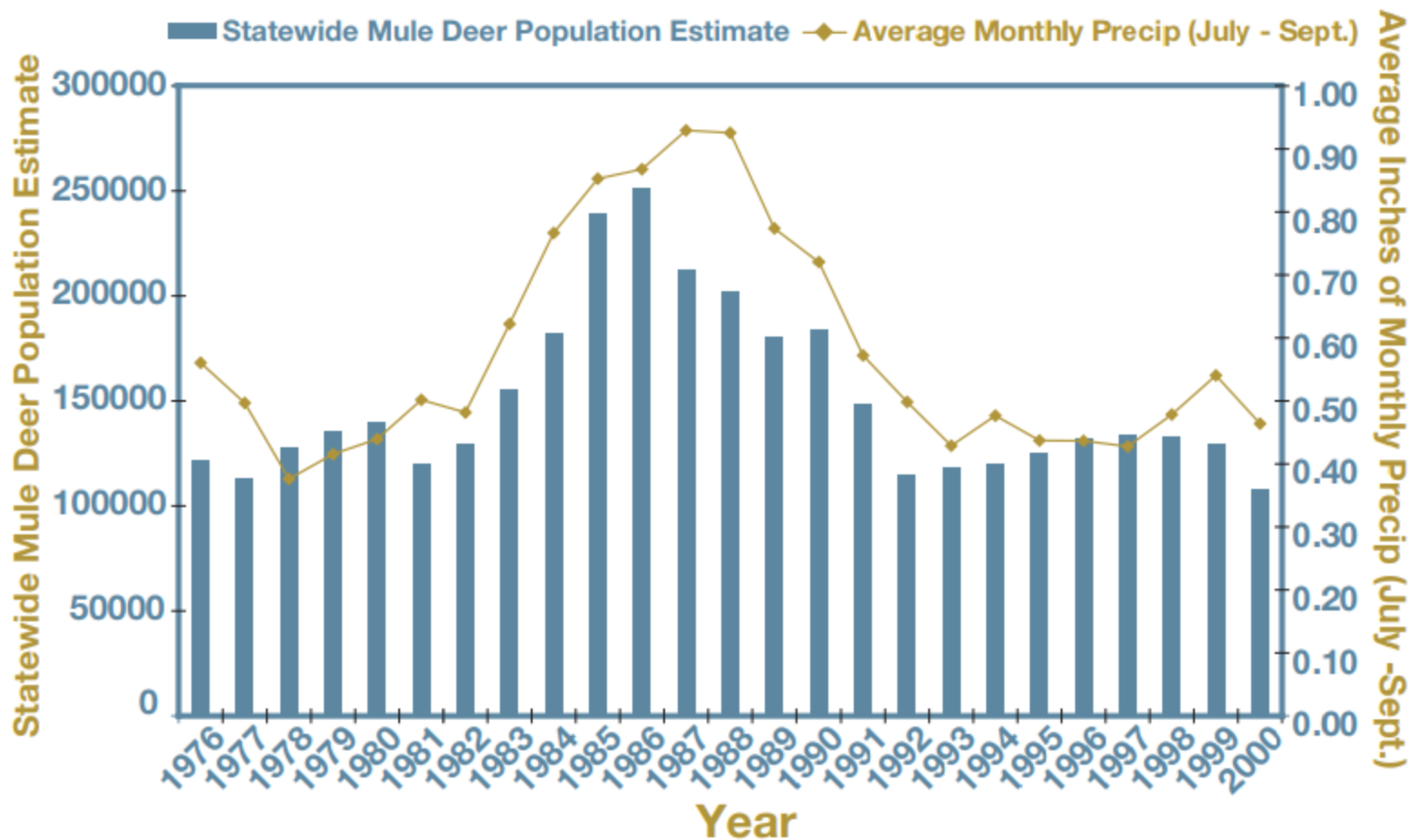


Figure 15. The relationship between statewide mule deer population estimate and summer precipitation. Summer precipitation is a six year average lagged 2 years.

\$3 Predator Fee

- \$800,000
- $\$800,000 / 16$
- $\$800,000 / 16 = \$50,000$

Circular Situation

Predation Perceived as Limiting Factor



Conduct Predator Removal



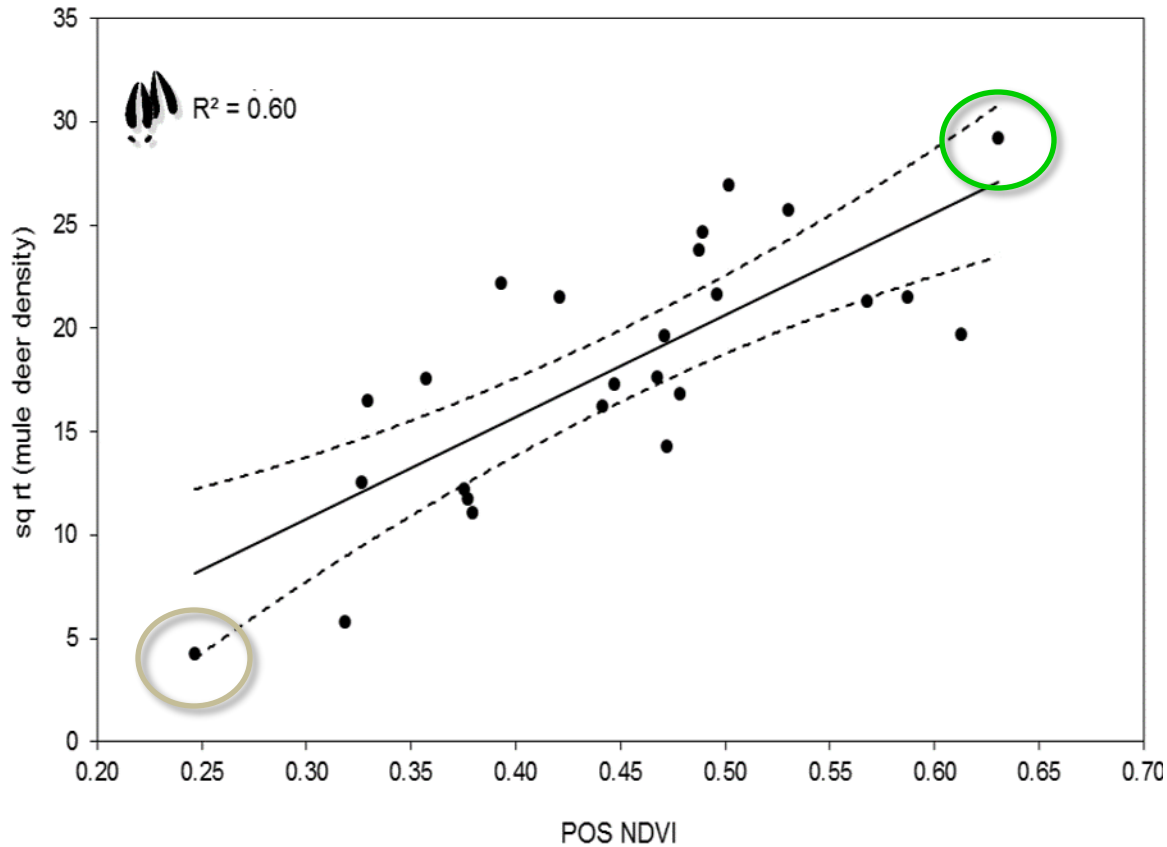
Wonder if it Worked

Various Interpretations Exist



How much space is required to support 370 deer?

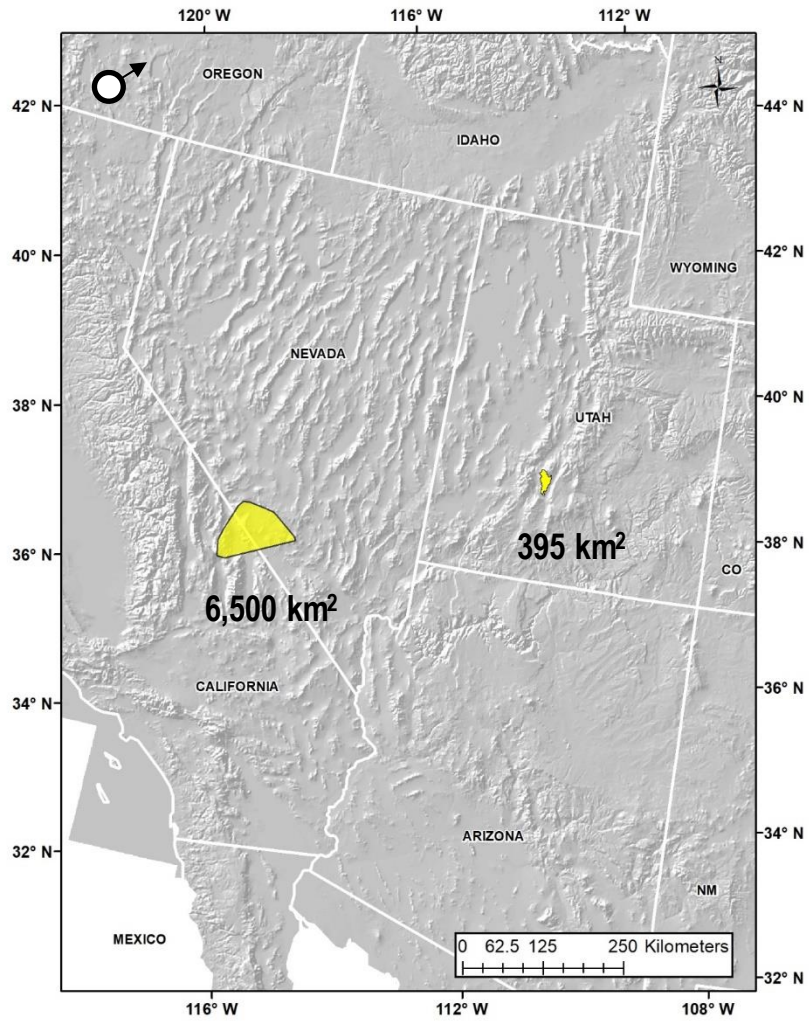
Mule deer density increases with primary productivity



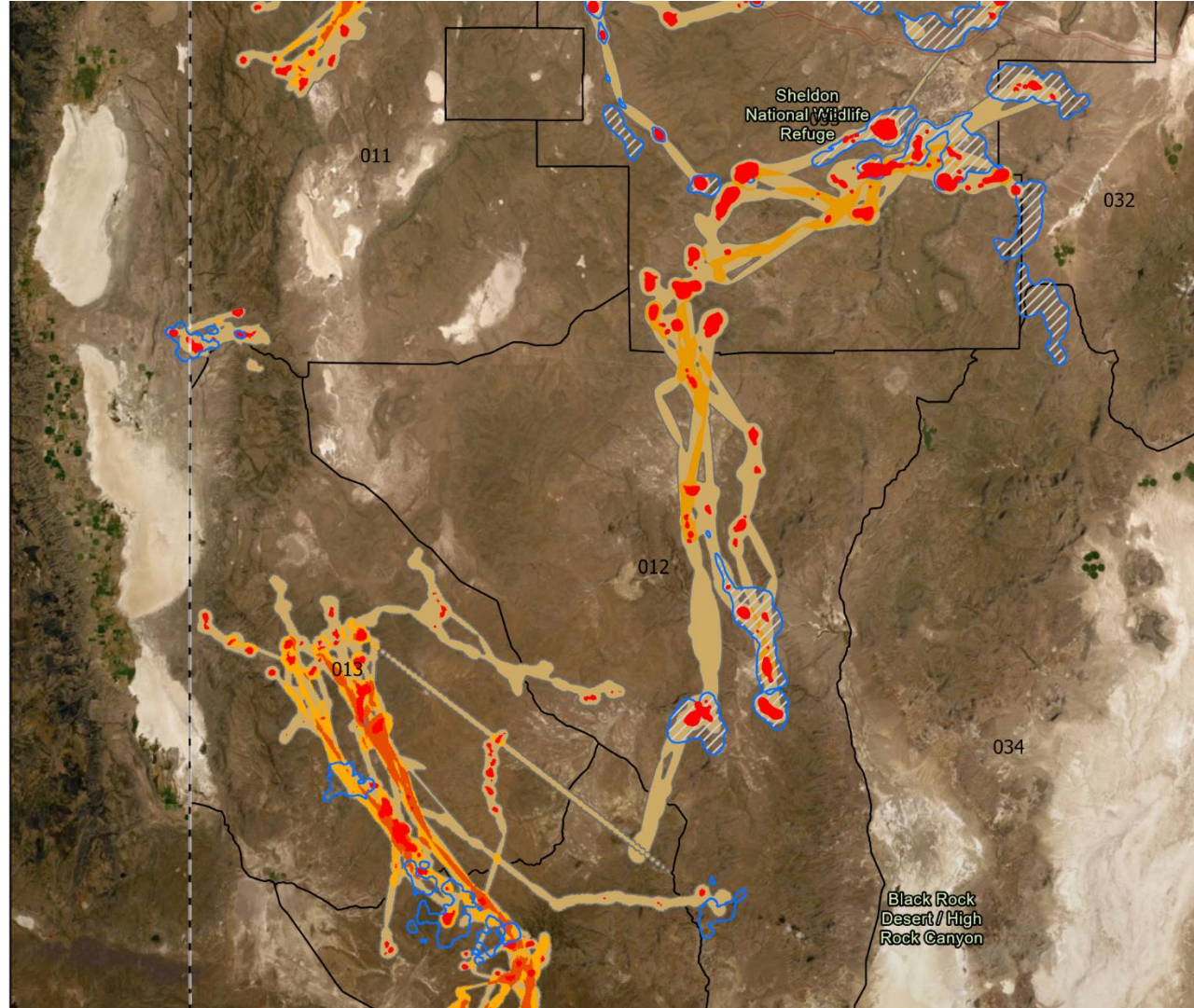
~ 60 km²



~ 1,500 km²

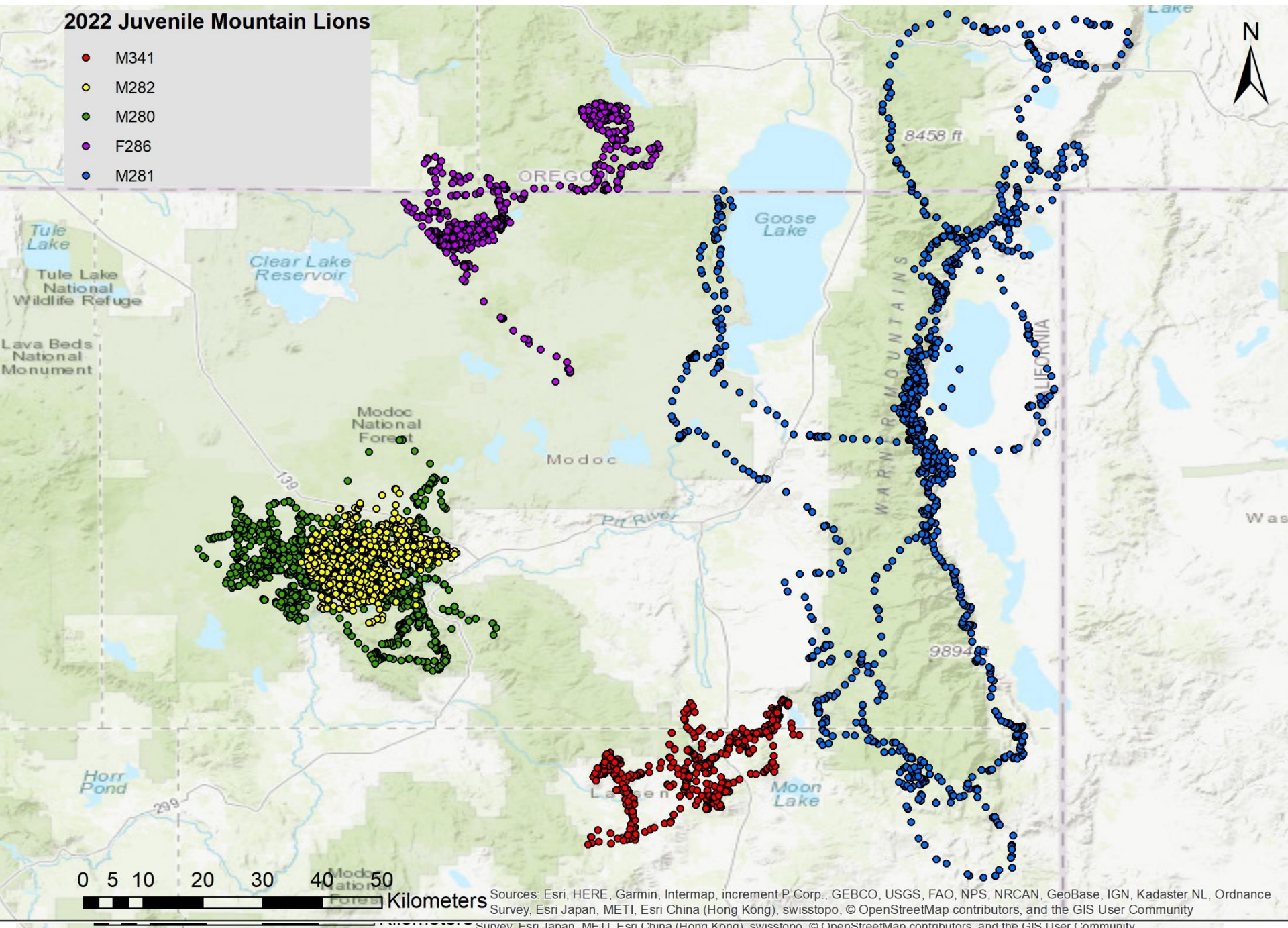


Wildlife constantly break
our assumptions



2022 Juvenile Mountain Lions

- M341
- M282
- M280
- F286
- M281



0 5 10 20 30 40 50 Kilometers

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Where can we go from here?

PREDATION IMPACTS AND MANAGEMENT STRATEGIES FOR WILDLIFE PROTECTION

MICHAEL J. BODENCHUK, State Director, USDA-APHIS-Wildlife Services, P.O. Box 26976, Salt Lake City, UT 84126

DAVID J. HAYES, Environmental Coordinator, USDA-APHIS-Wildlife Services, P.O. Box 1938, Billings, MT 59103

INTRODUCTION

Where I want to end up



Where I want to end up



Minimum Effective Dose



Image credit: [istockphoto.com/Prarinya Thonghyad](https://www.istockphoto.com/Prarinya-Thonghyad)

Mule Deer Enhancement Program Projects

Units 043-
046
Coyote
Removal

Hunt units 043-046

3 years

\$25,000-\$50,000 annually

Remove coyotes seasonally

Hunt units 111-115

Antelope
Range

3 years

Predator
Removal

\$75,000 annually

Remove coyotes

Cherry
Creek Lion
Removal

Hunt unit 121

May 2022-April 2025

\$75,000

Remove lions

Predator
Removal
in Priority
Fawning
Grounds

MA 22, 23, 24

May 2022-December 2026

\$50,000

Remove coyotes in fawning
habitat

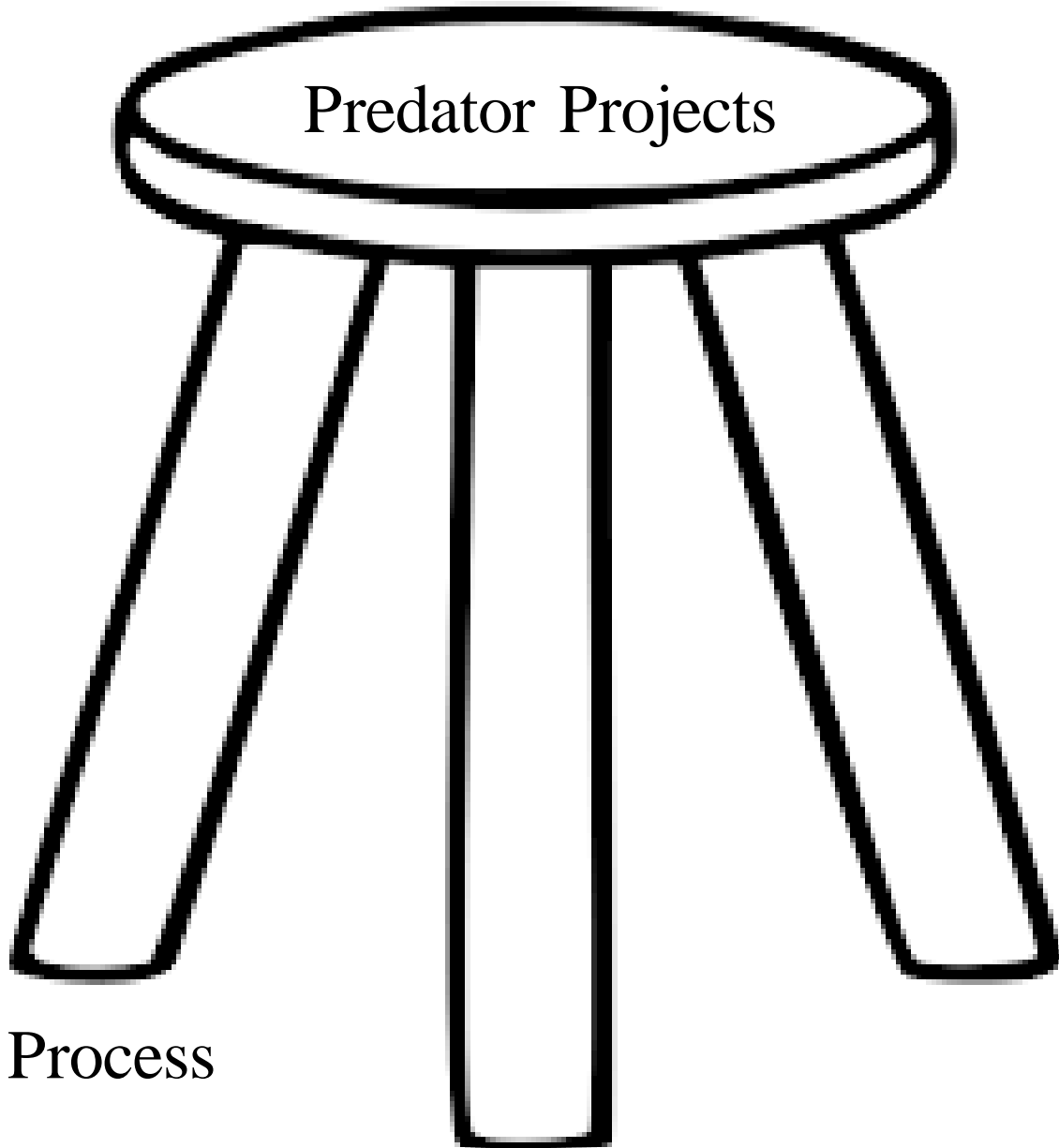
A simple line drawing of a stool with a flat, oval seat and four legs. The seat is slightly raised, giving it a three-dimensional appearance. The text "Predator Projects" is centered on the seat.

Predator Projects

A simple line drawing of a stool. The seat is an oval shape with the text "Predator Projects" centered on it. The stool has four legs: two on the left, one in the center, and one on the right. The legs are simple lines that taper slightly towards the bottom. The text "Public Process" is located at the bottom left of the image, below the stool's legs.

Predator Projects

Public Process



Predator Projects

Public Process

Proven Technique

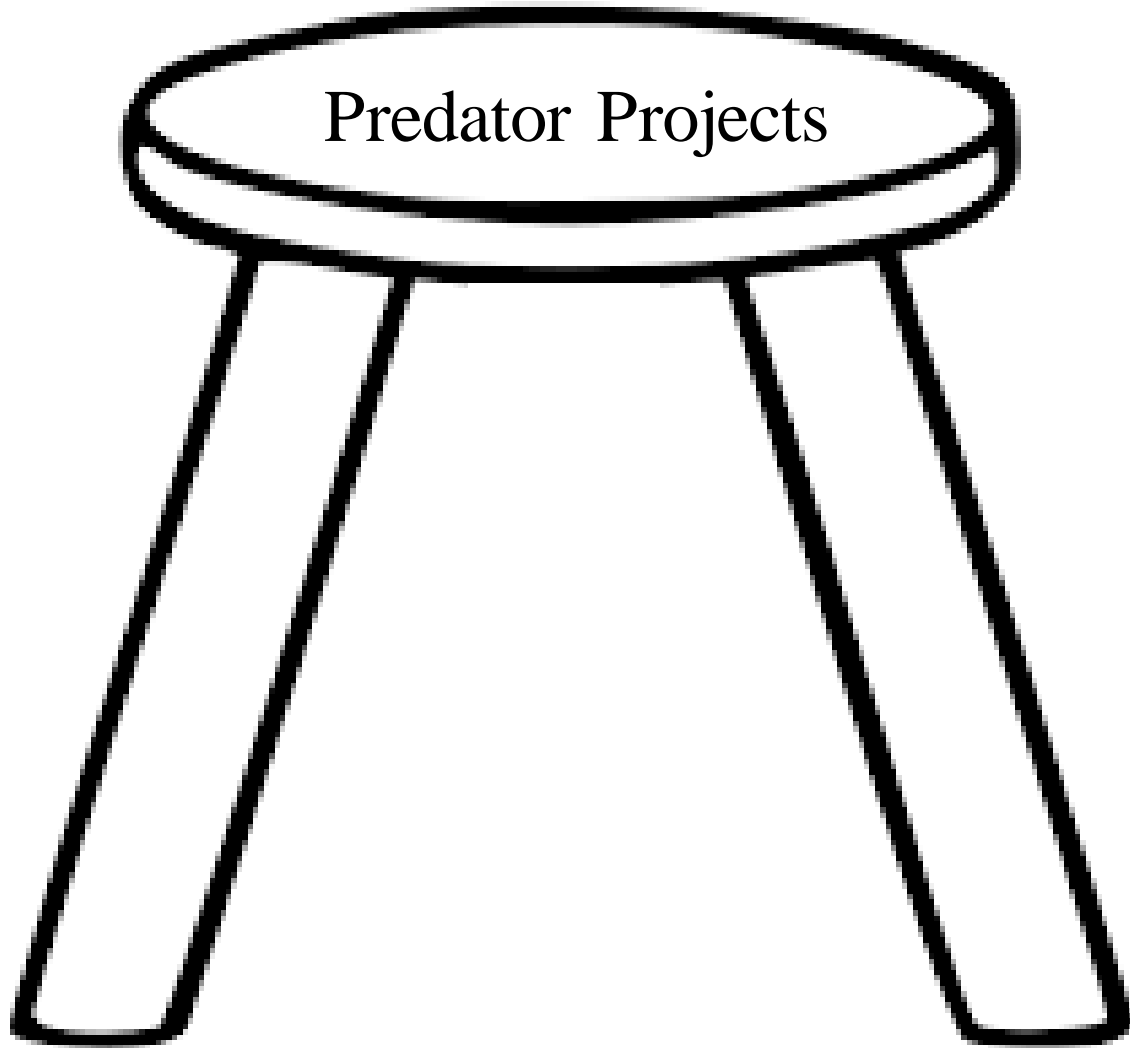


Predator Projects

Public Process

Experiment

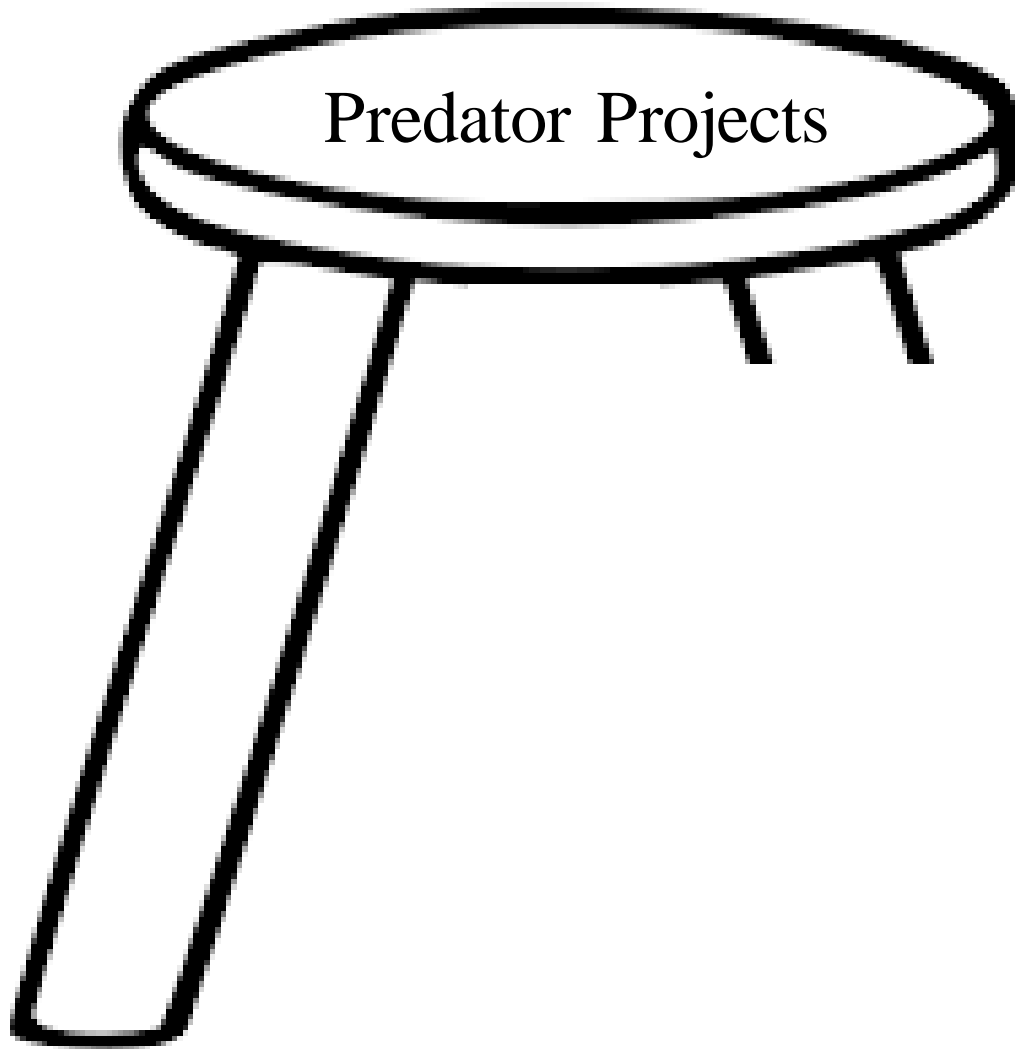
Proven Technique



Predator Projects

Public Process

Experiment



Predator Projects

Public Process

Experiment

Questions?



