



BIG GAME MANAGEMENT ACCOUNT

Advisory Committee Meeting

PRESENTED BY:

Big Game Conservation and Management Unit
California Department of Fish and Wildlife

Our Mission

To manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and their use and enjoyment by the public.



Mario Klip

Game Conservation and Wildlife Connectivity
Environmental Program Manager

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Science Support
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Deer Coordinator

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Bighorn Sheep
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Dawson Hall

Field Lead and Web
Design (LT)

Sofia Galvan

Edilyn Lazo
Environmental Services
Interns

Meghan Van Ruiten

Scientific Aid

Big Game Management Account

Fish and Game Code §3953

- Establishes the Big Game Management Account (BGMA)
 - Acquiring land
 - Completing projects
 - Programs to benefit antelope, elk, bear, deer, and sheep
 - Hunting to manage wild pigs
 - Expanding public hunting opportunities
 - Law enforcement and admin of above



Federal Aid in Wildlife Restoration Act

Fish and Game Code §711.1

- Requirements for federal Pittman-Robertson (PR) grants
 - Management of the Department's Wildlife Areas
 - Conservation of and research on wildlife and their habitats
 - Support the Department's hunting-related programs



Big Game Management Account Species



Credit: Mike Roberts



Credit: KCRA



Credit: Los Padres Forest Watch



Credit: Josh Schulgen



Credit: Savannah Rose Wildlife

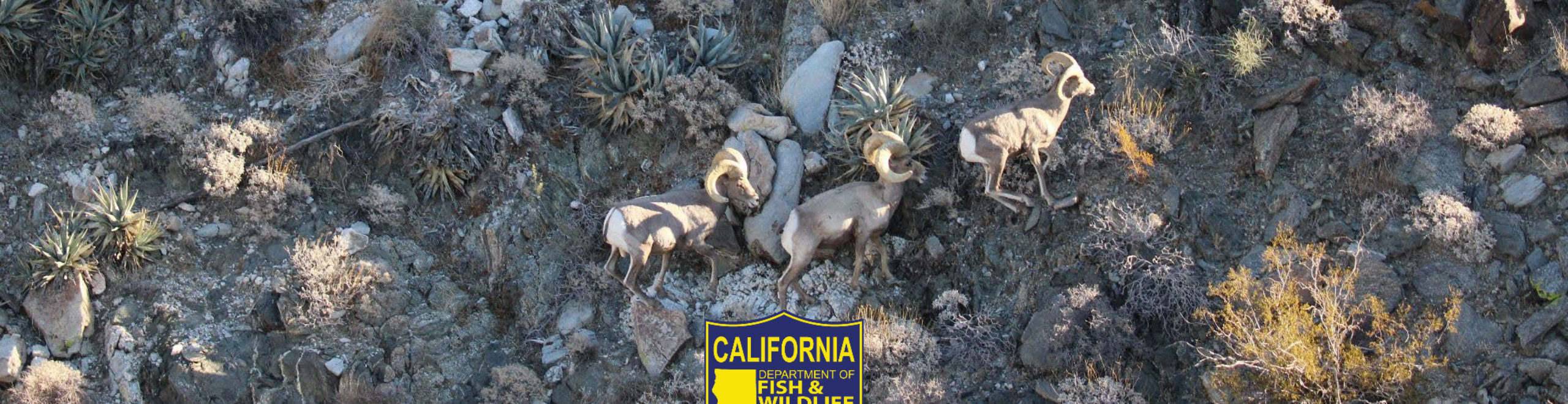


Credit: CDFW

Agenda

- Public comment
- Big Game Program
 - Bighorn Sheep
 - Elk/Pronghorn
 - Deer
 - Bear
 - Regulations
 - SHARE
 - Big Game Budgets





PENINSULAR BIGHORN AND THE BORDER

Collaborations Overcome Challenges

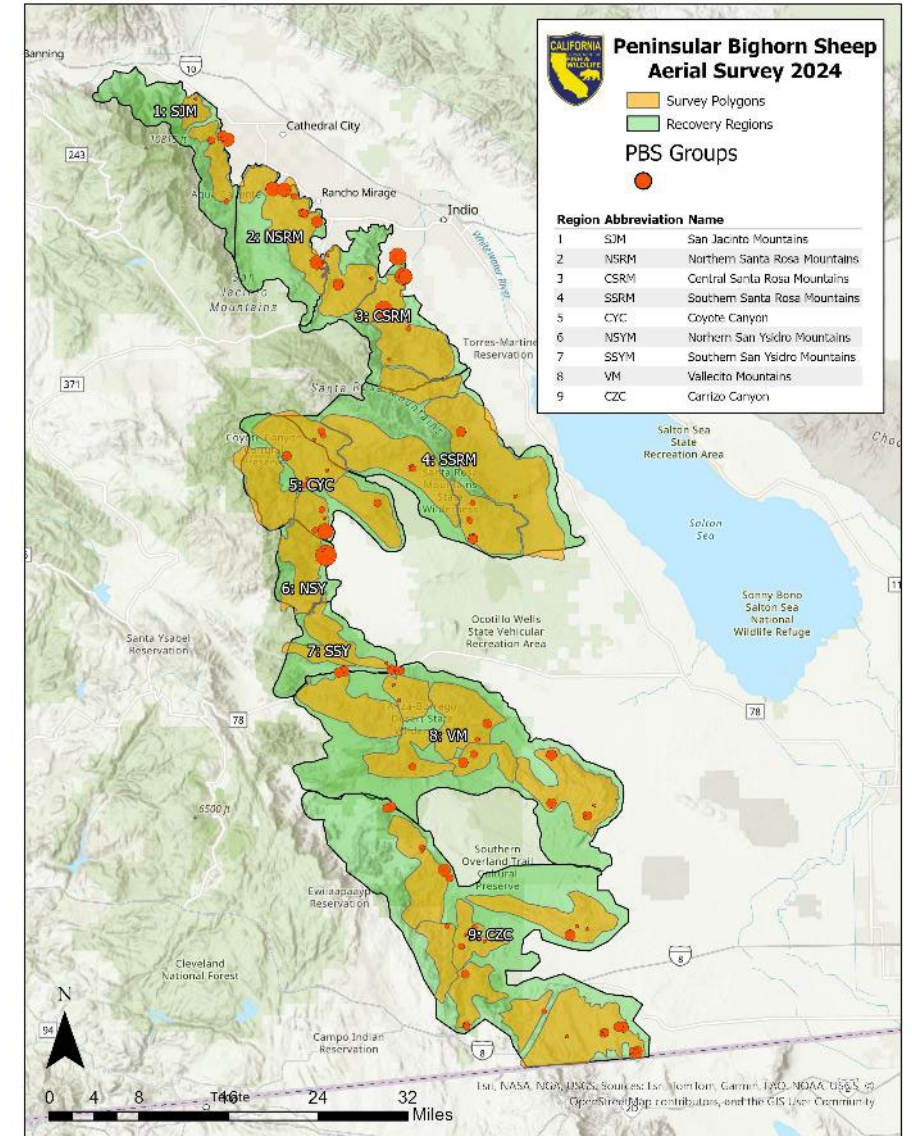
PRESENTED BY:

Paige (Prentice) Young, Ph.D.
Statewide Bighorn Sheep Coordinator

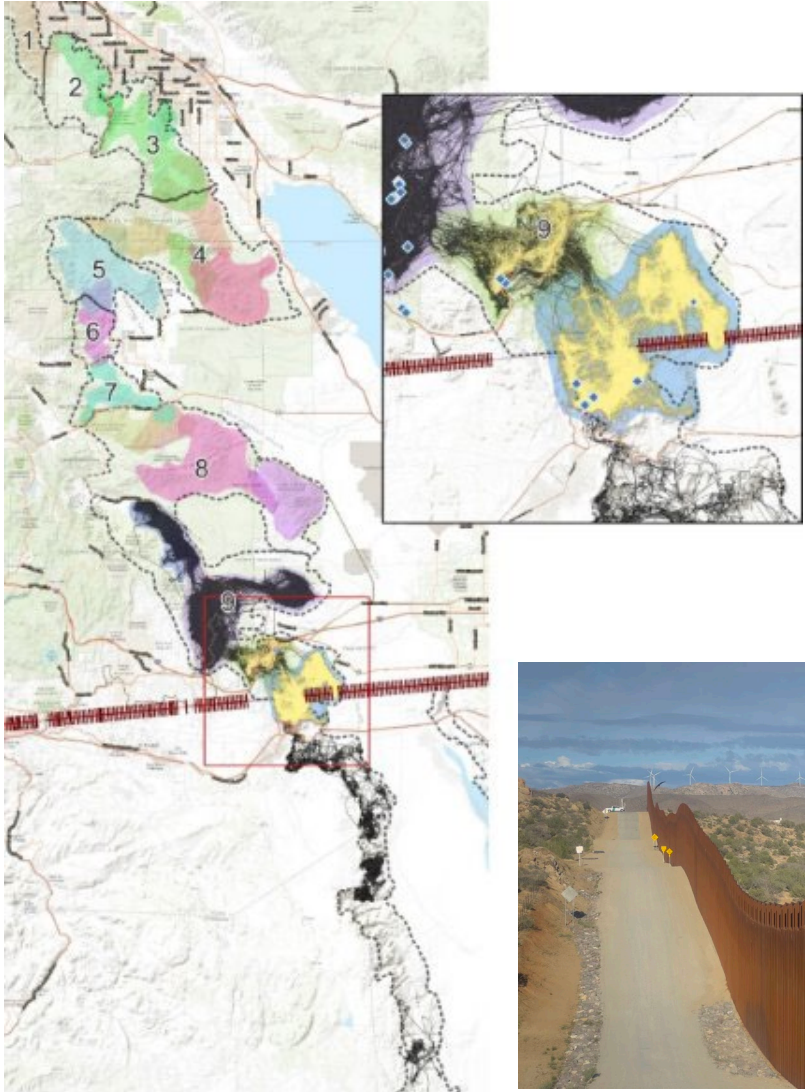
PBS Population Monitoring

CDFW monitors all 9 regions

- San Jacinto to Mexico
- As of December 2024, mark-resight estimate 743 (656-830) individuals



Jacumba Ewe Group



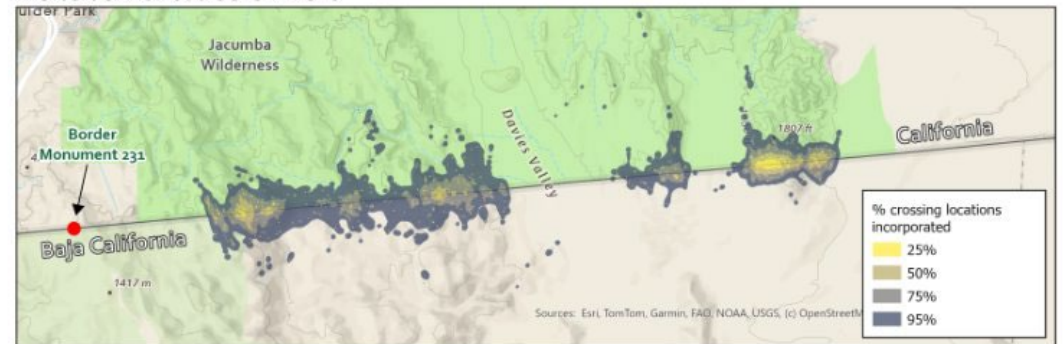
Jacumba

US: 60% home range area

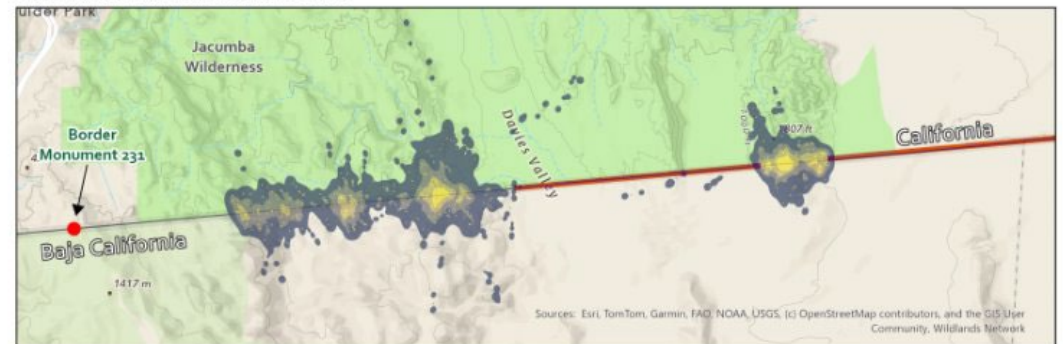
Mexico: 40% home range area

55% collar time in Mexico

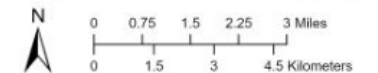
Pre-border wall additions in 2020



Post-border wall additions in 2020



Border wall built: 2008 - 2017 2017 - 2021



Multi-Agency Collaboration and Solutions

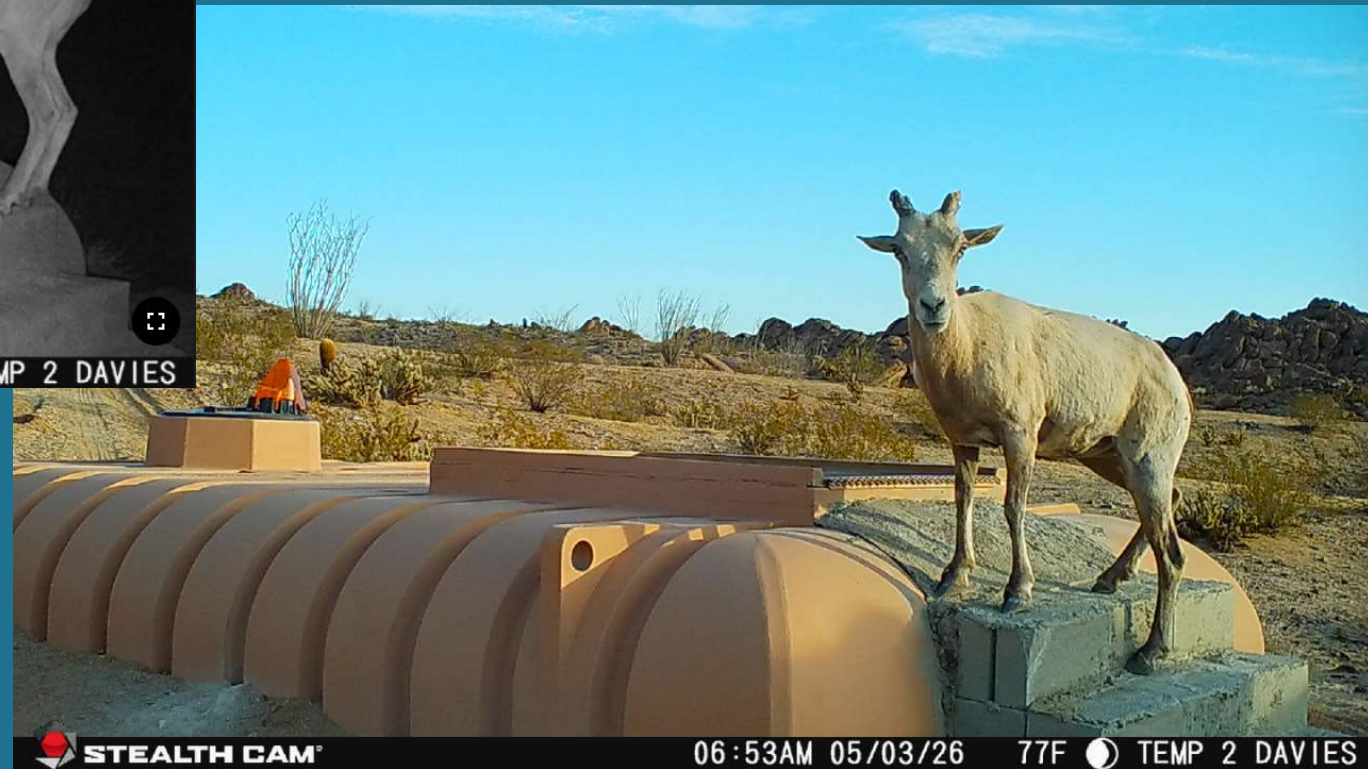
- January 2026: coordinating meetings with federal partners (BLM, US FWS, CBP, US Navy)
- February: field trip to assess 6 potential drinker sites
- Post-field visit consensus:
 - Water is necessary
 - Temporary systems are best to address and alleviate immediate concerns
 - Permanent water developments are needed long-term but the planning process takes longer



Six Temporary Water Sources Installed



Initial Visitors

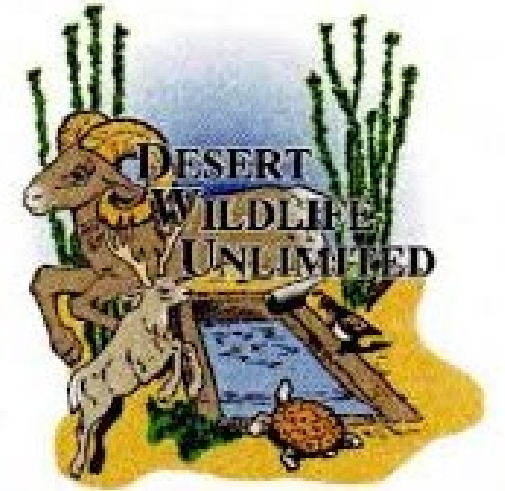


Permanent Water Sources

- We are working closely with the BLM to move forward with getting two permanent water sources installed
- Each system will have a minimum capacity of 9,000 gallons and a rainmat to allow self-filling and self-sustaining systems
- **Goal: install both permanent systems next winter**



A huge thanks to our partners!!!





ELK AND PRONGHORN

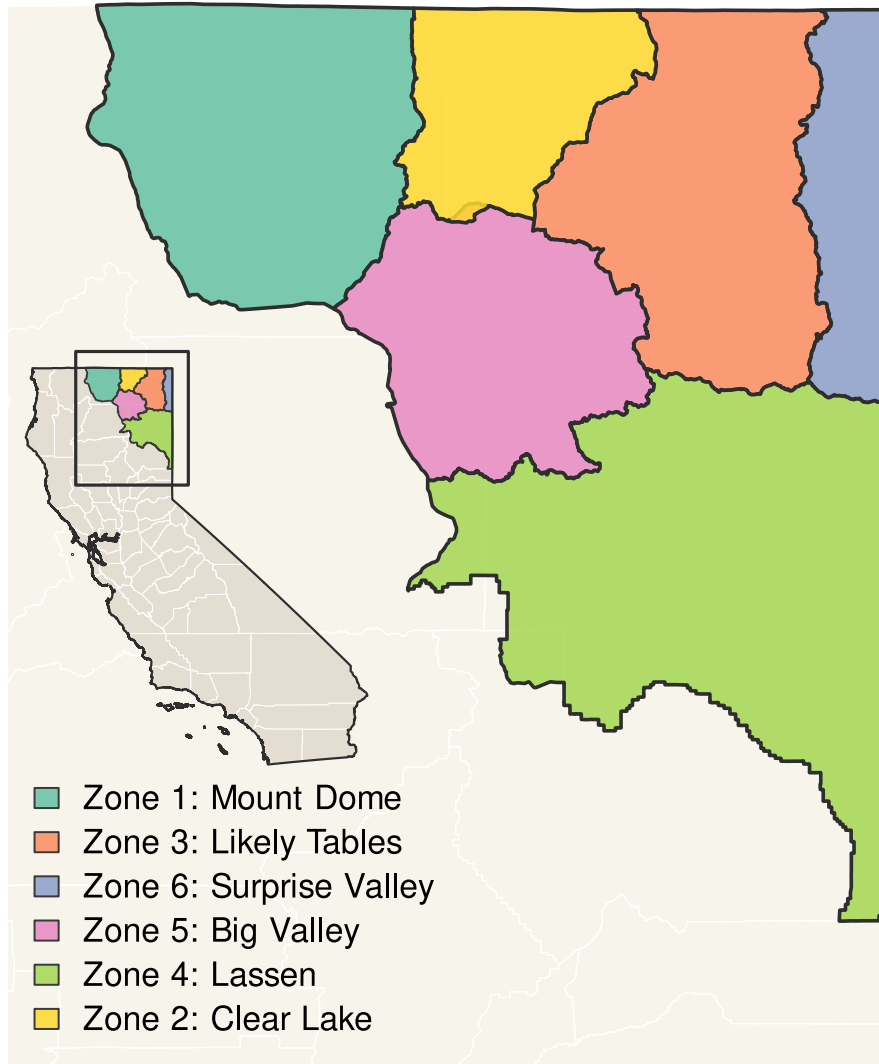
Brent Wolf, Statewide Elk and Pronghorn Coordinator

Elk Population and Management

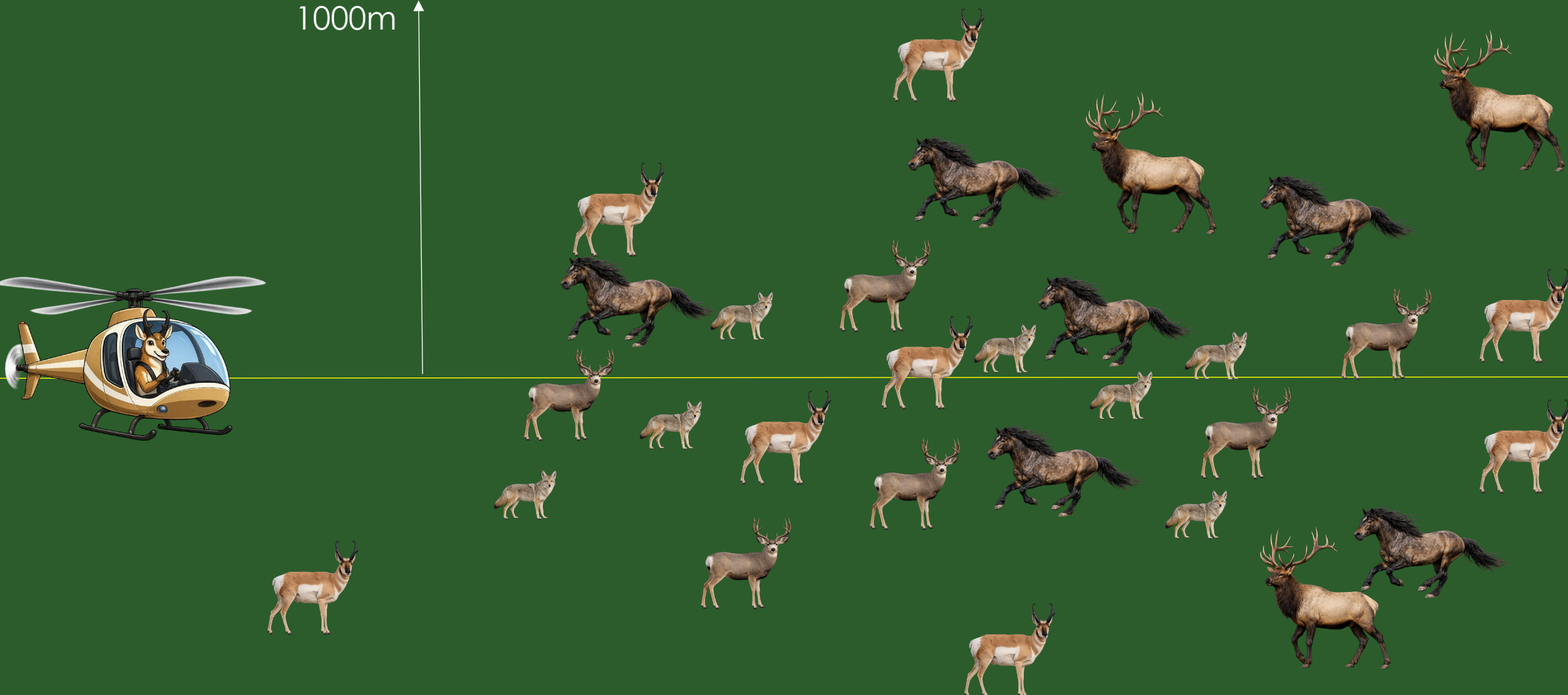
- Populations stable or increasing
- Using minimum counts for abundance estimates
 - Investigating distance sampling and FLIR
- Addressing conflict
- Continuing to monitor TAHD in NW California
- Working to manage Owens Valley population
- Updating management plan



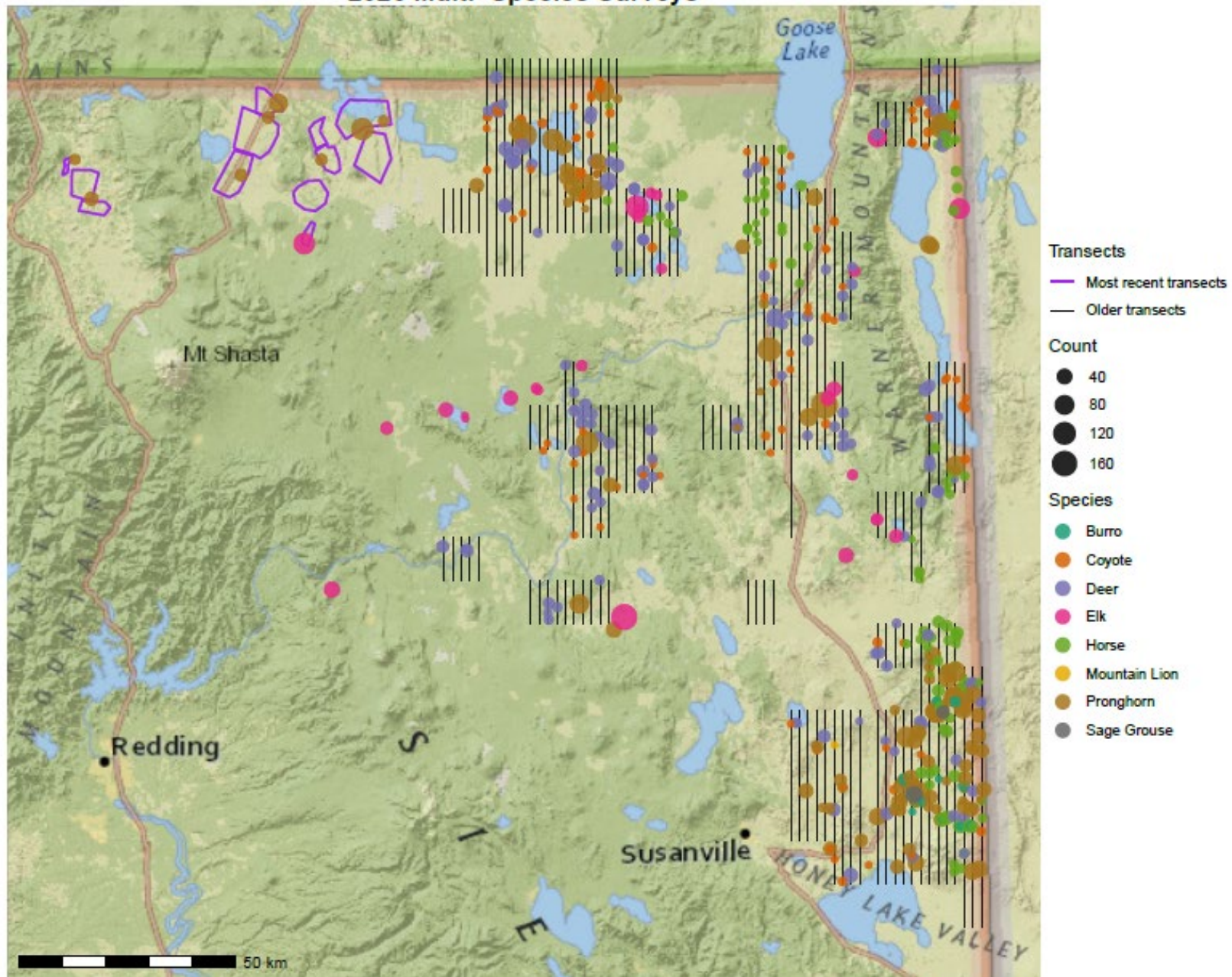
Multi Species Monitoring Efforts



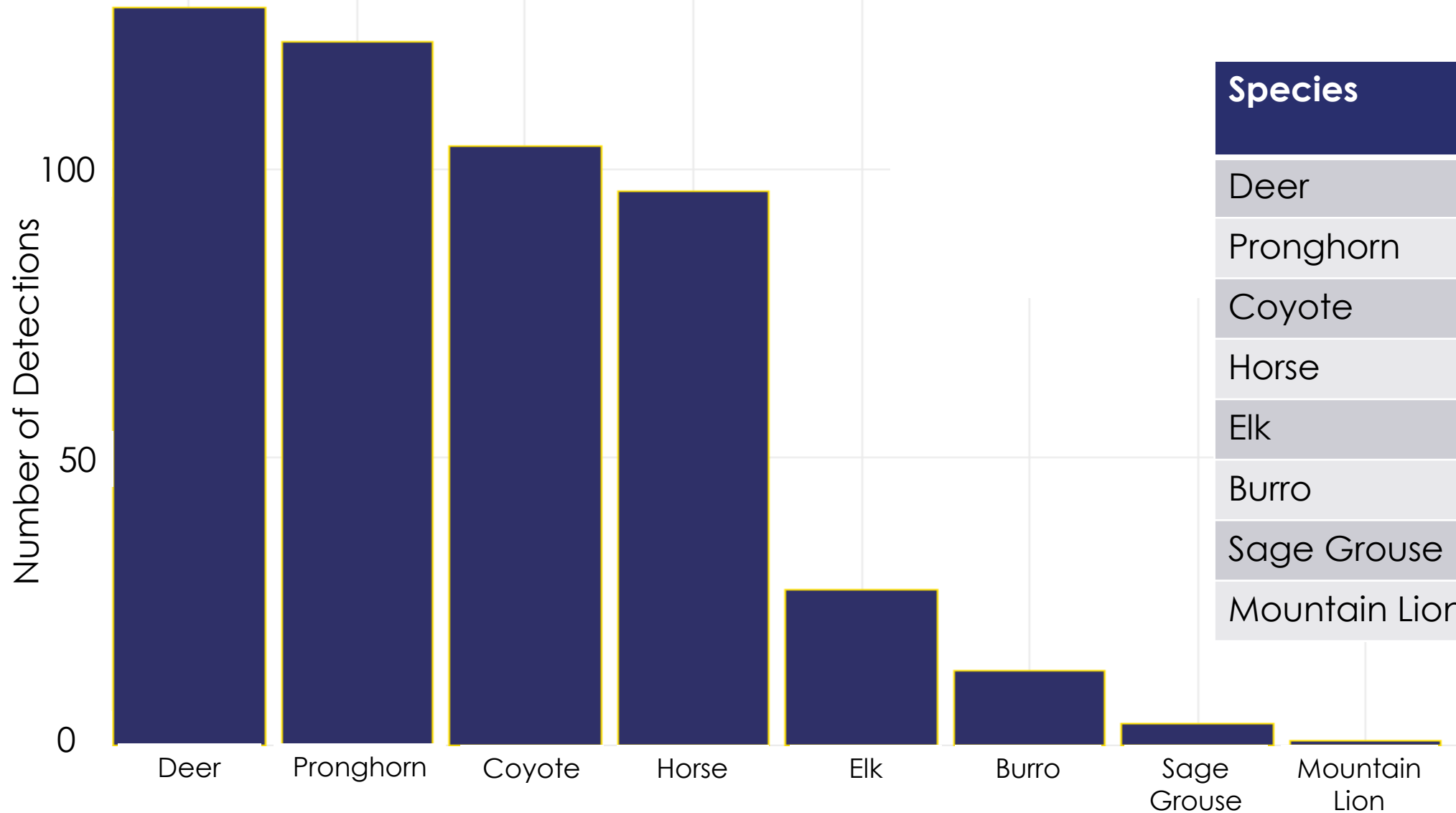
Multi Species Monitoring Efforts



2026 Multi-Species Surveys



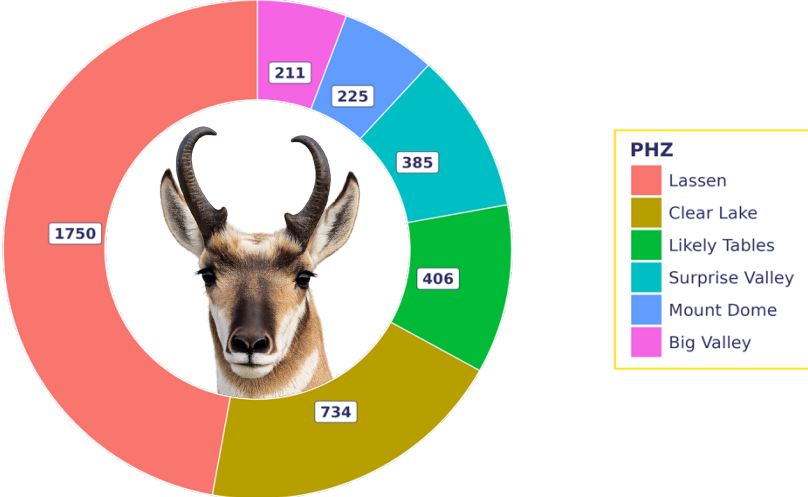
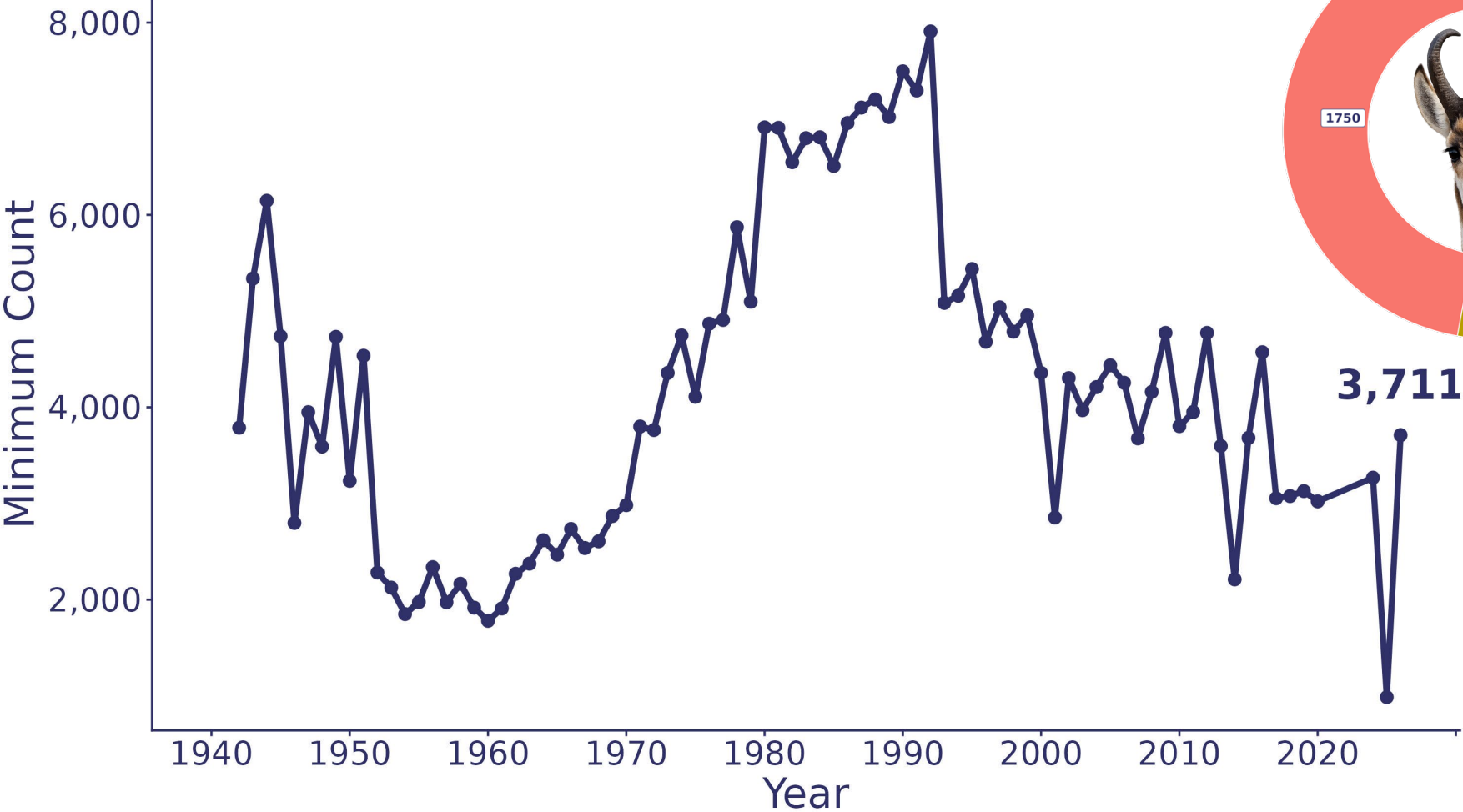
Multi Species Monitoring Efforts



Species	Average Group Size
Deer	9.0
Pronghorn	30.4
Coyote	1.5
Horse	4.8
Elk	27.6
Burro	3.8
Sage Grouse	28.8
Mountain Lion	1.0

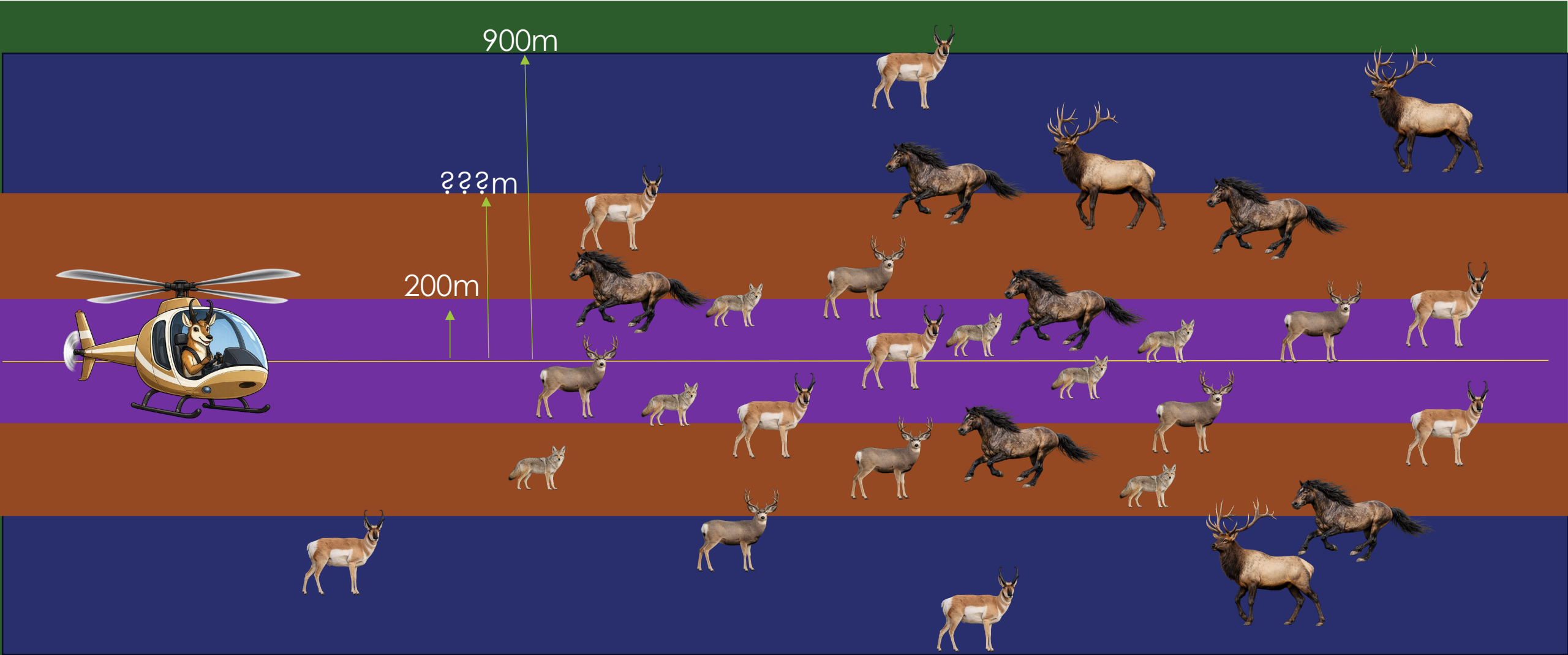
Multi Species Monitoring Efforts

Pronghorn Minimum Counts



Note: methods and effort vary from year to year making direct comparisons difficult.

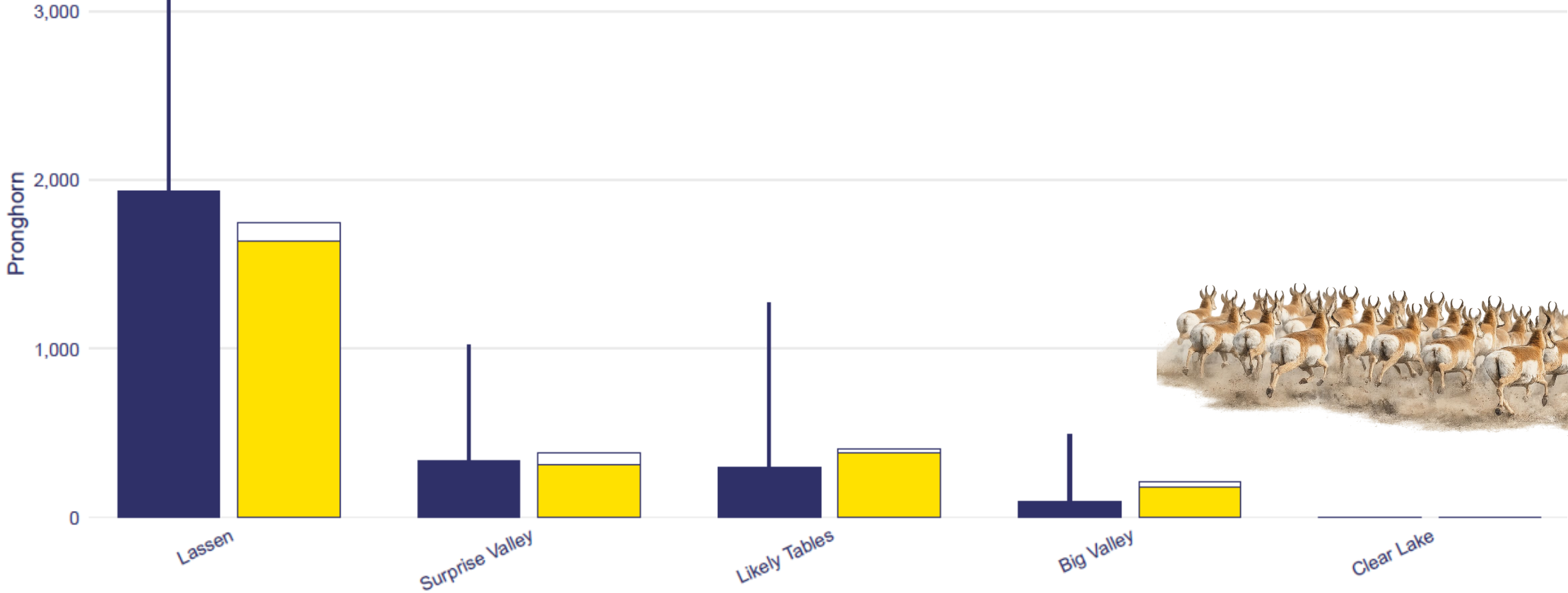
Multi Species Monitoring Efforts



Multi Species Monitoring Efforts

Pronghorn Abundance by PHZ

Abundance Estimate Count: On-transect Count: Off-transect





BLACK-TAILED AND MULE DEER

Brian Leo, Statewide Deer Coordinator

Deer Conservation and Management Plan



- Assembled Technical Advisory Group (TAG)
 - 8 meetings completed
- 13 remote, hybrid, and in-person public scoping sessions
- 2 Tribal listening sessions
- Full draft with gaps
- Current effort focused on statewide abundance and survival estimates
 - TAG meeting scheduled June 12, 2026
- IPM currently in development
 - Contract with UC Berkeley
- Chapters 1–3 to be submitted for executive review
- Public review by the end of the year

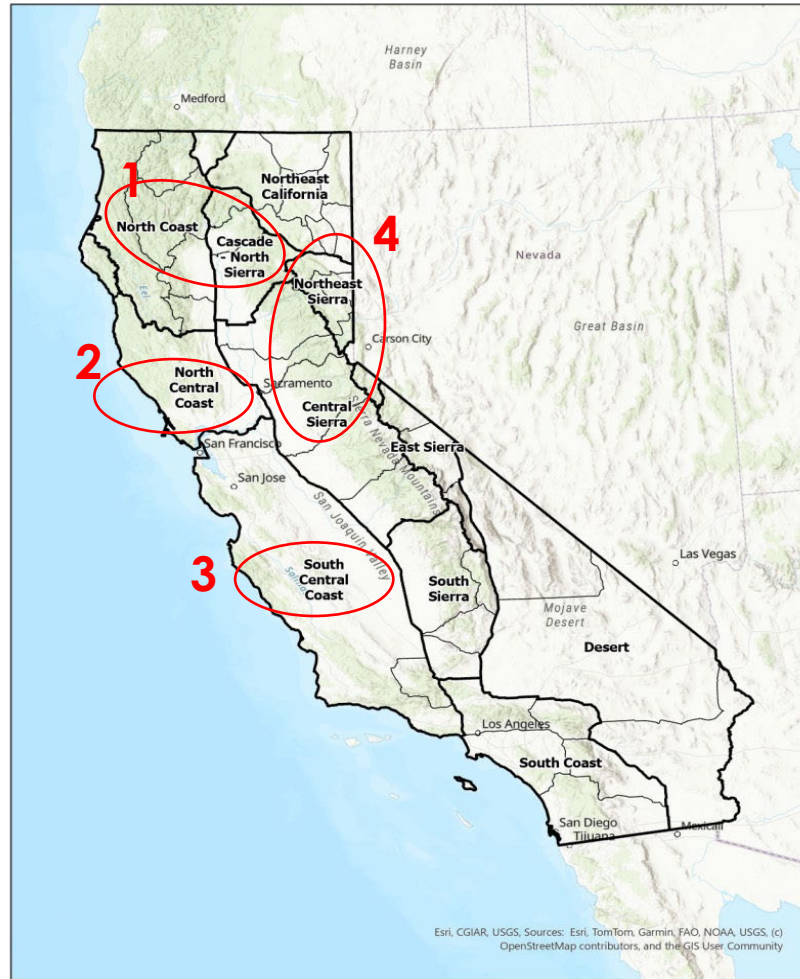
Deer Conservation and Management Plan



Public Scoping Sessions

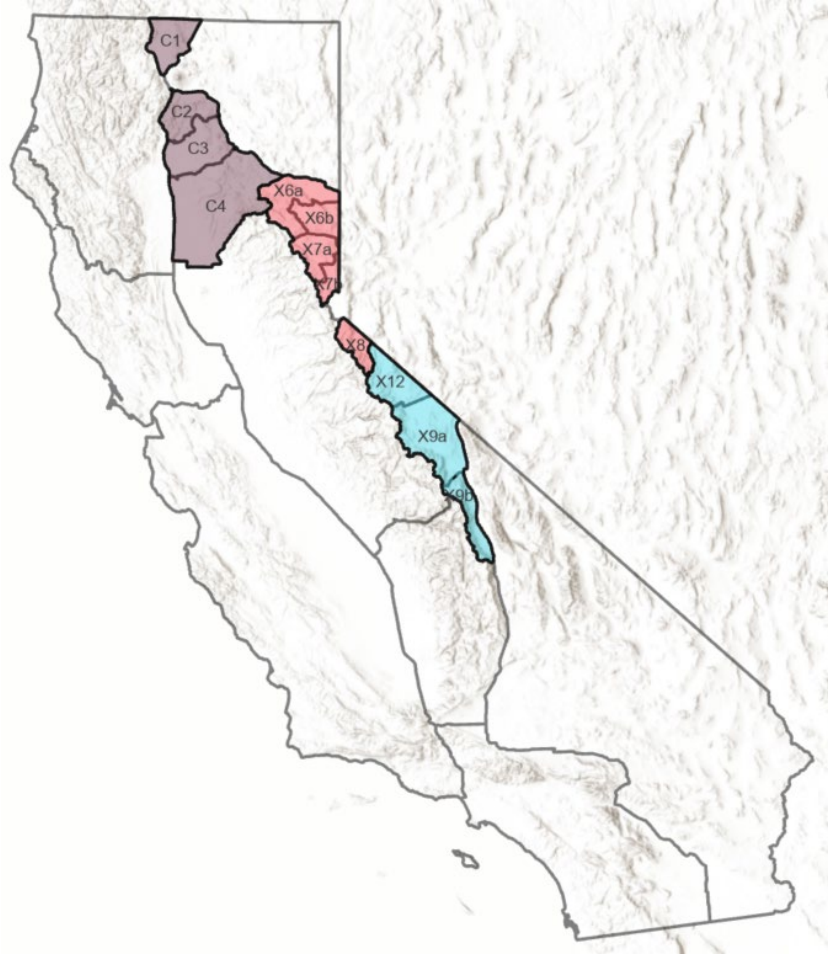
- Major Feedback Themes
 - Population estimates and monitoring
 - Habitat restoration
 - Predation
 - Hunting management
 - Disease
- Revisions
 - Expanded habitat management and restoration
 - Clarified and expanded predator-prey sections
 - Included statewide population estimate and will include statewide survival estimate.

Monitoring Effort – Summer 2026 Fecal DNA Goals



- Hiring a Limited Term ES fDNA Coordinator
- Repeat transects:
 1. North Coast and Cascade-North Sierra DCUs
 2. North Central Coast DCU
 3. South Central Coast DCU
 4. Central and Northeast Sierra DCUs
- Establish transects in East Sierra DCU to compare with local IPM

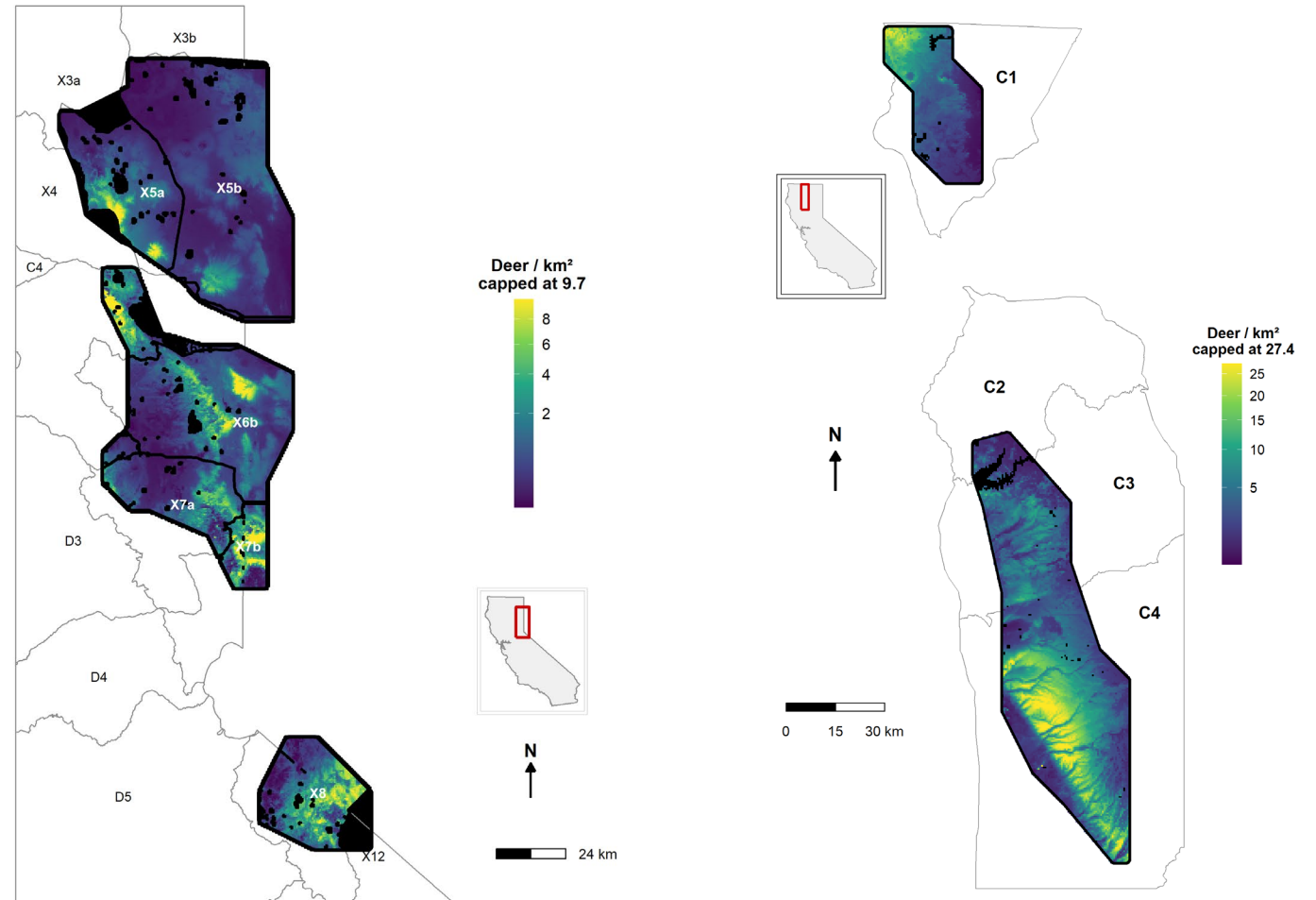
Monitoring Effort – Helicopter Survey 2026



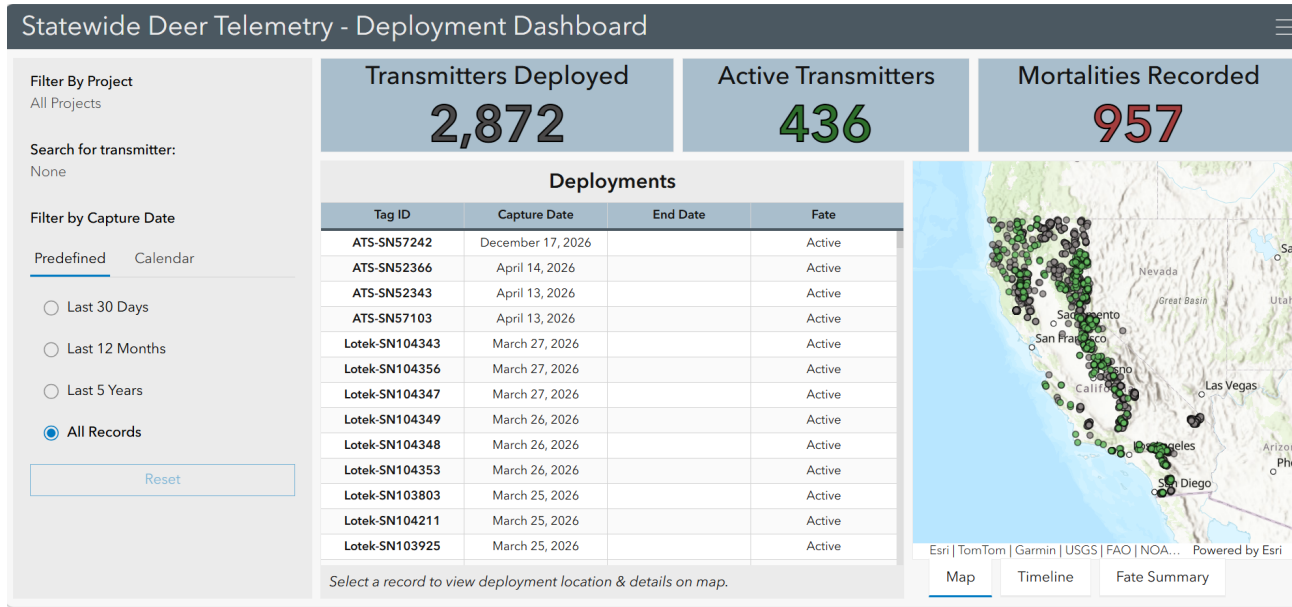
- Cascades North Sierra – distance sampling
- Northeast Sierra – distance sampling
- East Sierra – mark resight

Monitoring Effort – Helicopter Survey Reports

- Finalizing reports from 2025-2026 effort
- Distance sampling and Density Surface Modeling (DSM)
- DSM may help identify important winter habitat
- Currently prioritizing 2027 helicopter requests



Monitoring Effort – Movement and Survival



- Collar Purchase
 - 160 doe survival collars
 - 20 doe movement collars
 - 90 buck collars
 - CWD monitoring in Bishop
 - 15 CWD buck movement collars
 - 15 doe survival

- Helicopter capture contract will be out for bid soon



Monitoring Effort: FLIR

Forward-Looking Infrared (FLIR)



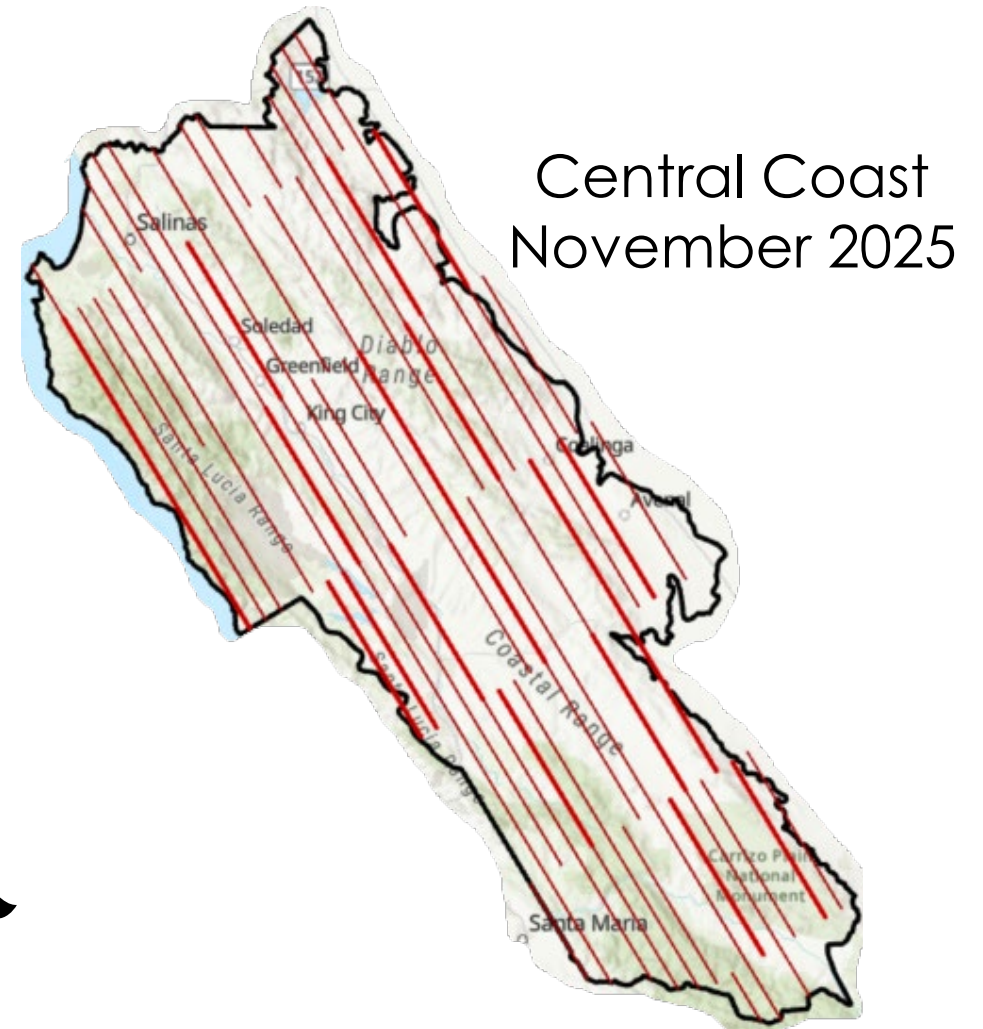
All photos: Owyhee



OWYHEE AIR RESEARCH

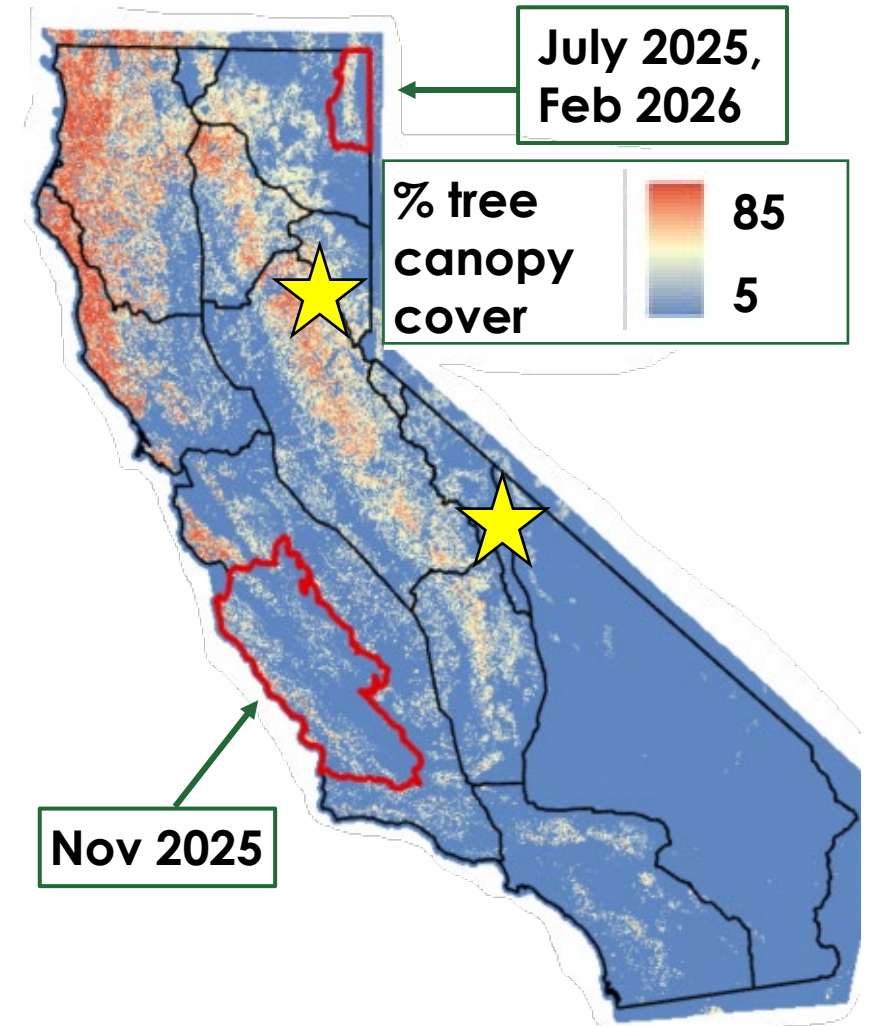
Advantages of FLIR Surveys

- Reduced
 - Cost per area sampled
 - Landscape coverage restrictions
 - Risks to CDFW staff
 - CDFW staff time required



Progress and Next Steps

- Use of FLIR will be limited by
 - Heat
 - Visibility (weather)
 - Tree canopy cover
 - Landscape ruggedness
- Next Steps
 - Refine approaches to survey design and analysis
 - Bishop CWD survey
 - Trial in the Sierras – June 2026

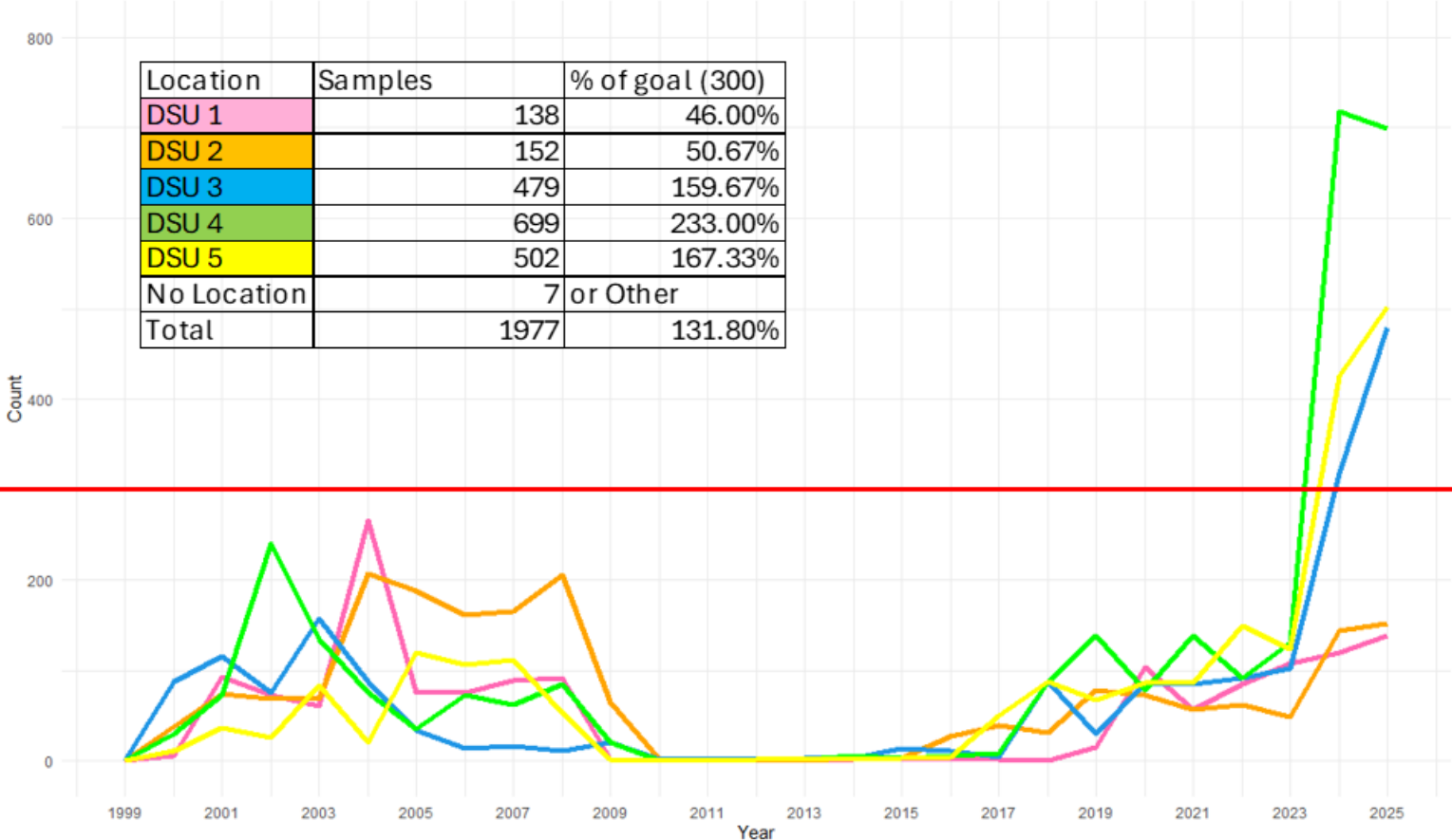


Chronic Wasting Disease

2025 and Historic CWD Surveillance

CWD Surveillance Data by Year and DSU

Location	Samples	% of goal (300)
DSU 1	138	46.00%
DSU 2	152	50.67%
DSU 3	479	159.67%
DSU 4	699	233.00%
DSU 5	502	167.33%
No Location	7	or Other
Total	1977	131.80%



We have collected 10,616 samples since 2000 and 1/3rd of them have been taken in 2024 and 2025!



Sara Holm



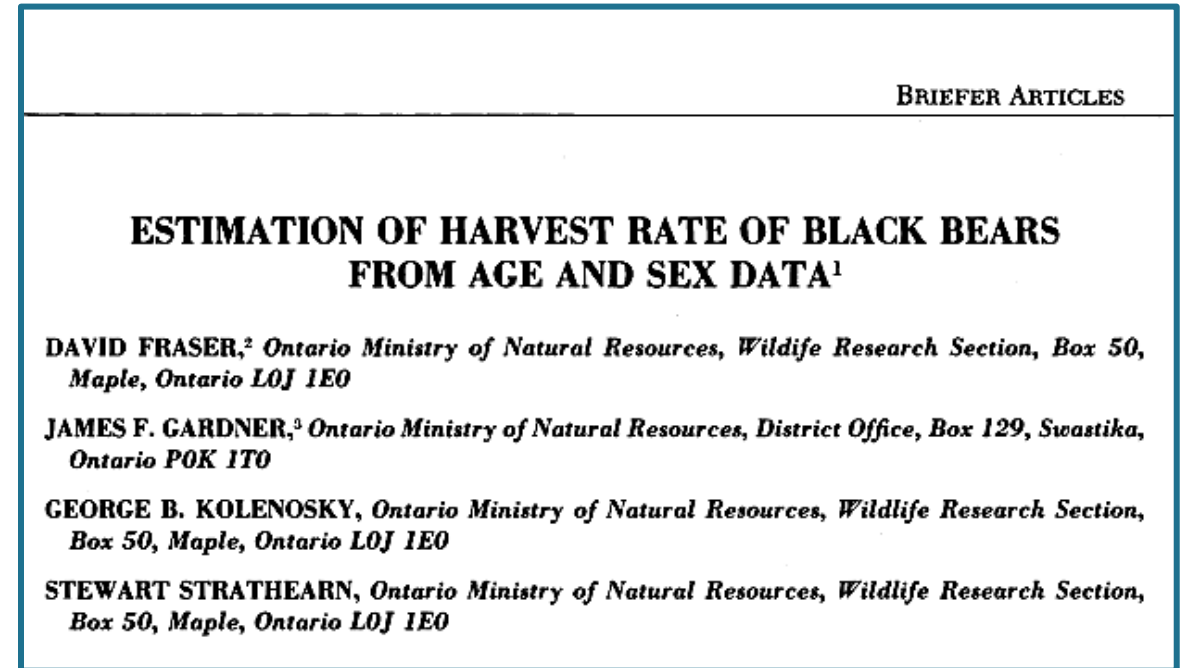
BLACK BEAR

Arjun Dheer, Statewide Black Bear Coordinator

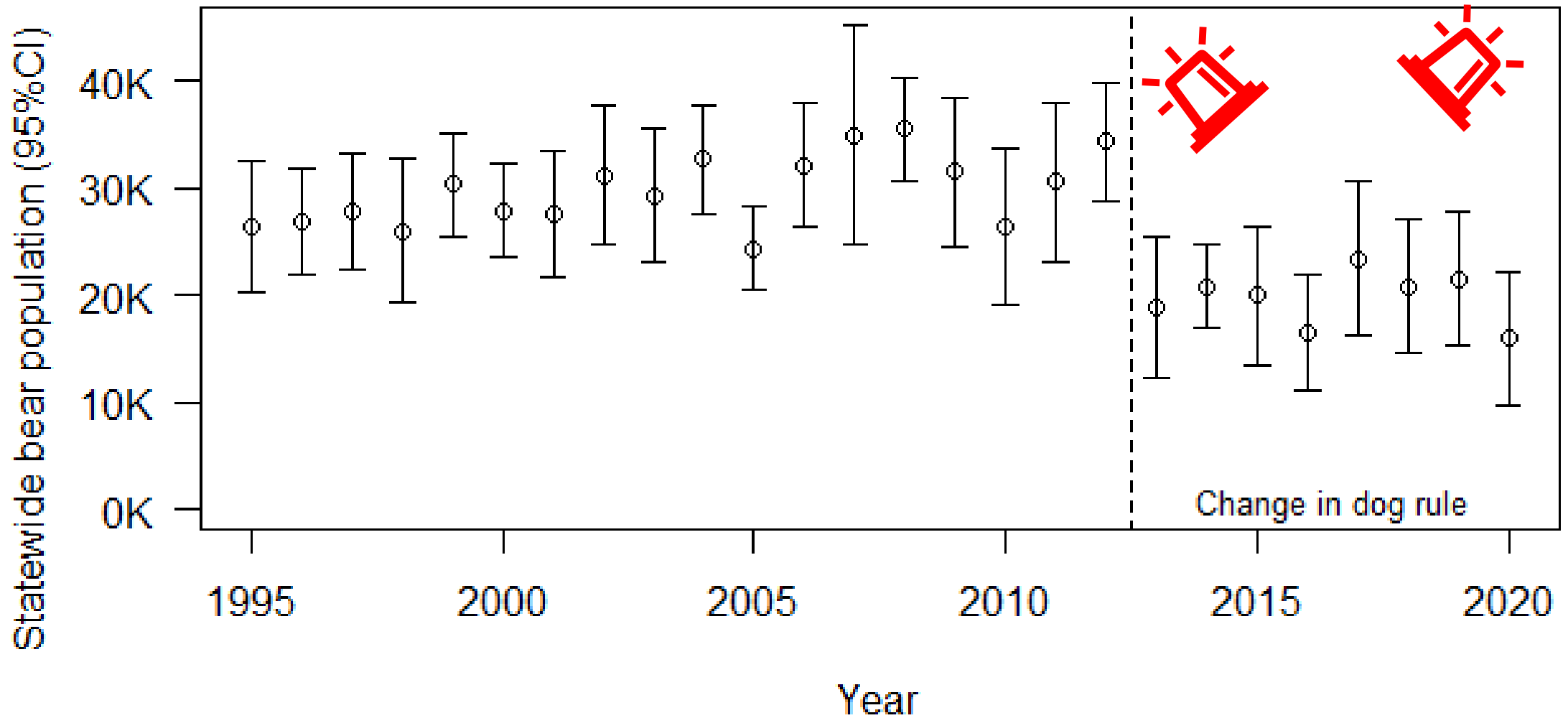
CDFW's Former Approach



Very Good
Data



Very Old
Model

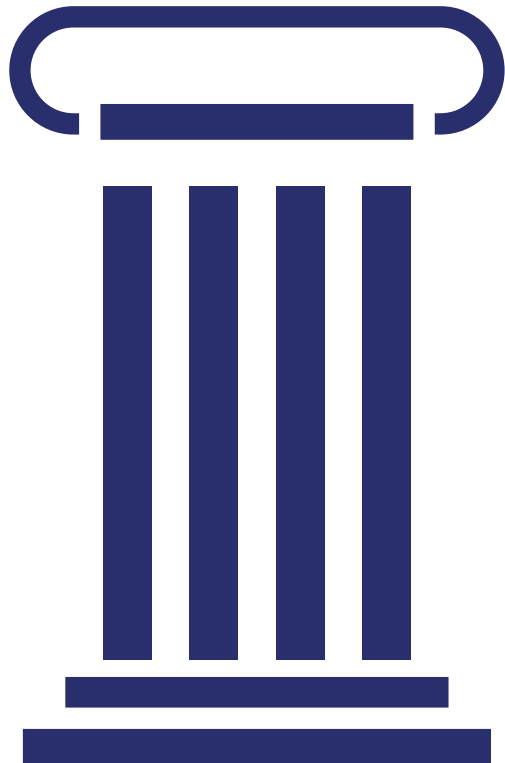


Population crash = model artifact

New Approach: Integrated Population Model

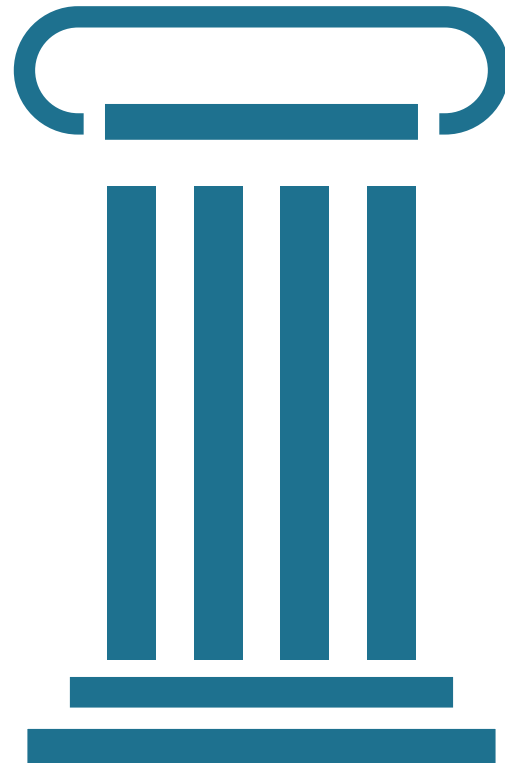
AAH data

Harvest reporting,
tooth aging



Density studies

Hair snares, fDNA,
mark-resight



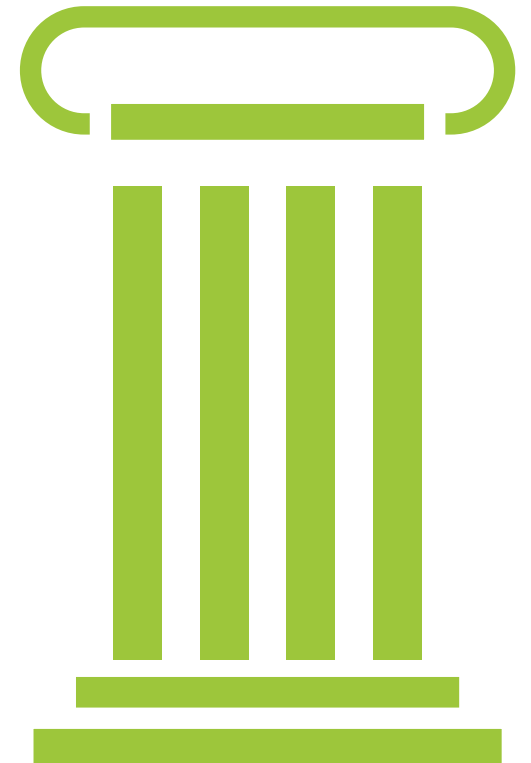
Vital rate priors

Den checks,
camera traps

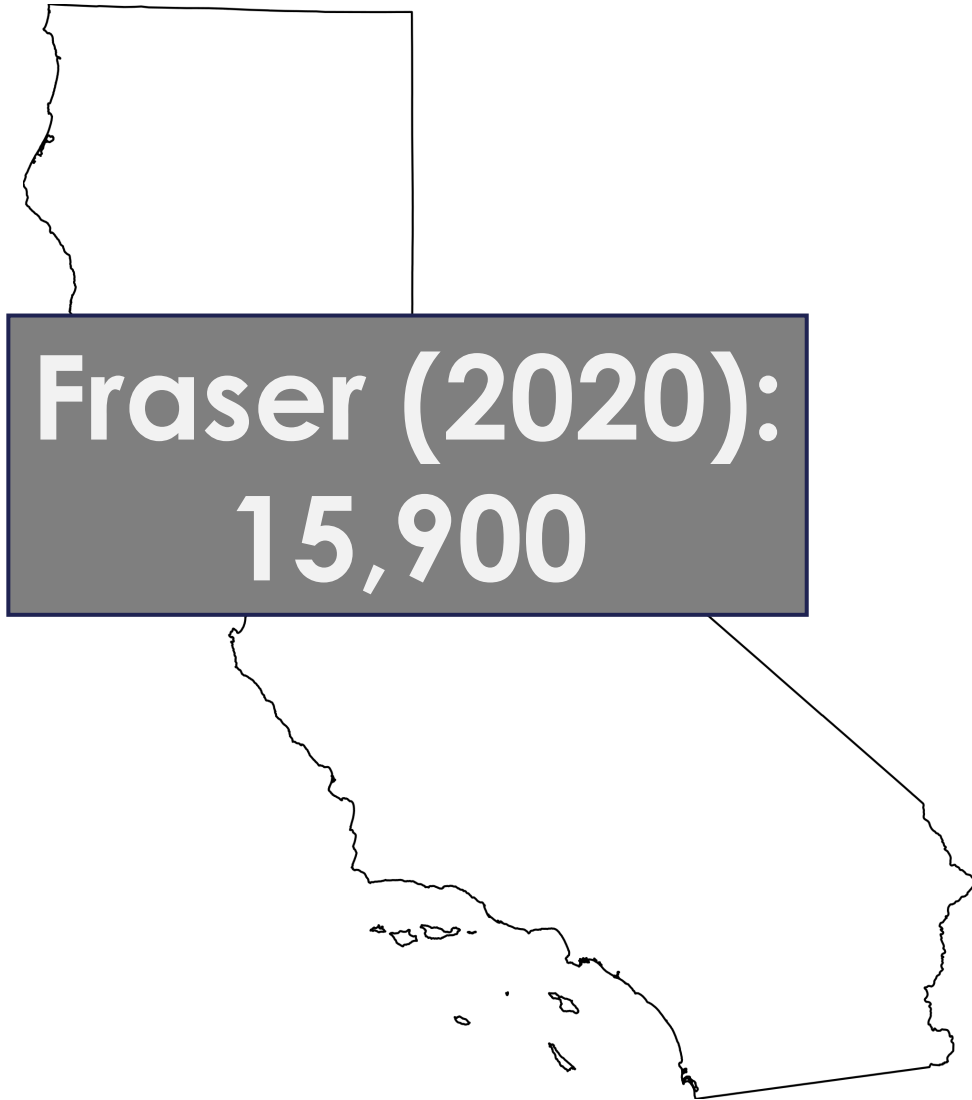


RN model

Camera
traps, range map



Population Size Estimates

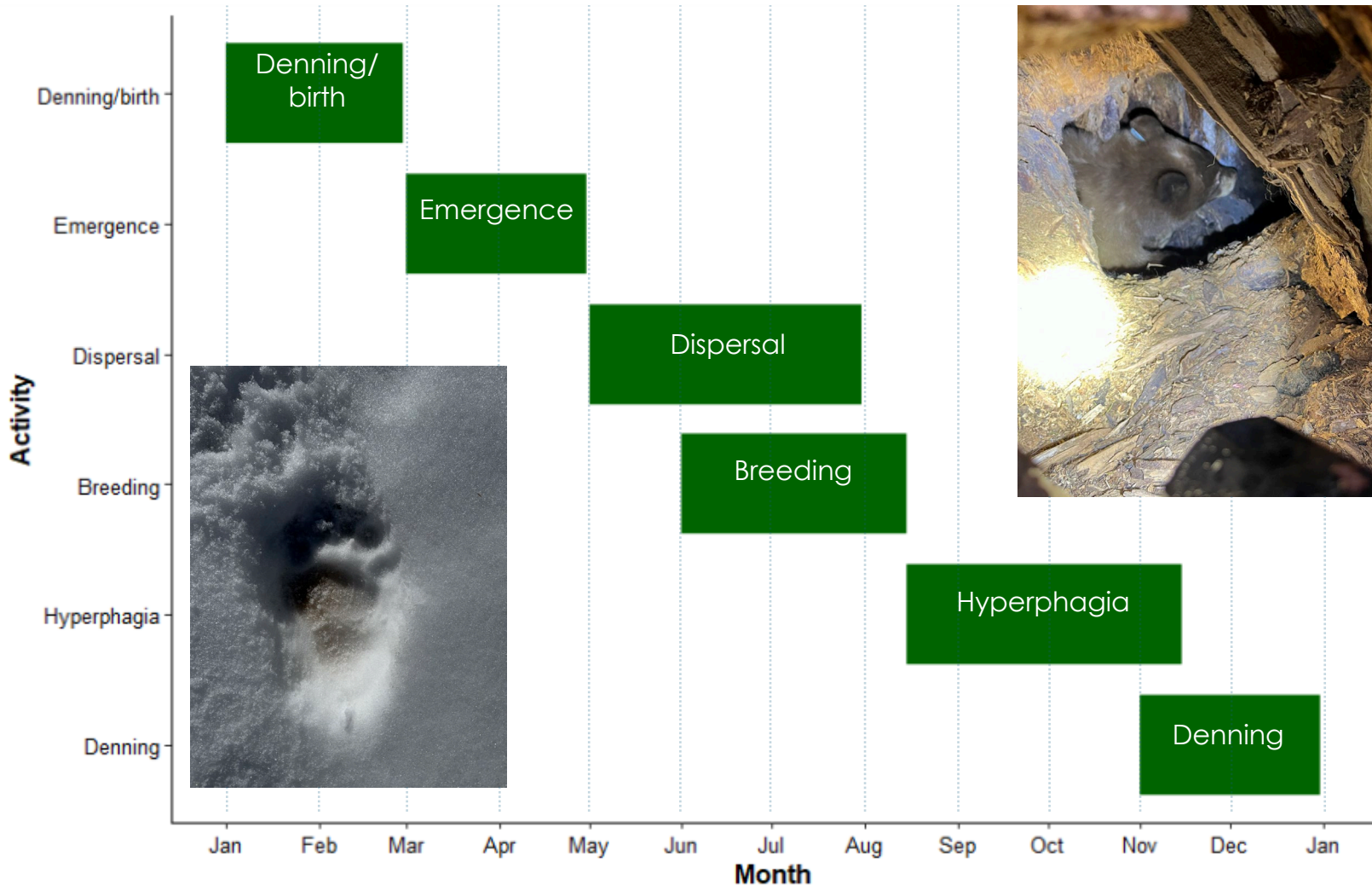


Den Checks – the Process



- Biologists locate and potentially immobilize a denning black bear to collect vital rates and habitat data, samples, and assess welfare/health to inform species management
- 2-3 people approach den to immobilize, others staged back
- Timing: January-April
- Protocols and data collection procedures developed in collaboration with WHL and Region

Denning Behavior in Black Bears













- Adaptive response to environmental resource scarcity + need for refuge to give birth
- Not consistent across BCRs or age-sex classes
- On average: lighter denning period than conspecifics elsewhere

Why Do We Do Den Checks?



- Most data-rich method for collecting vital rates information
- Vital rates data are ground-truthed
- Critical for defensibility of IPM
- Also provide "bonus" information

IPM Priors: Den Checks Provide the Best Data

Vital rate	Den checks	Camera traps	Observations	Other (summer captures, harvest etc.)
Litter size		Sometimes	Sometimes	Sometimes
Sex proportion				Sometimes
Survival		Sometimes	Sometimes	Sometimes
Pregnancy rate		Sometimes	Sometimes	Sometimes
Recovery rate				

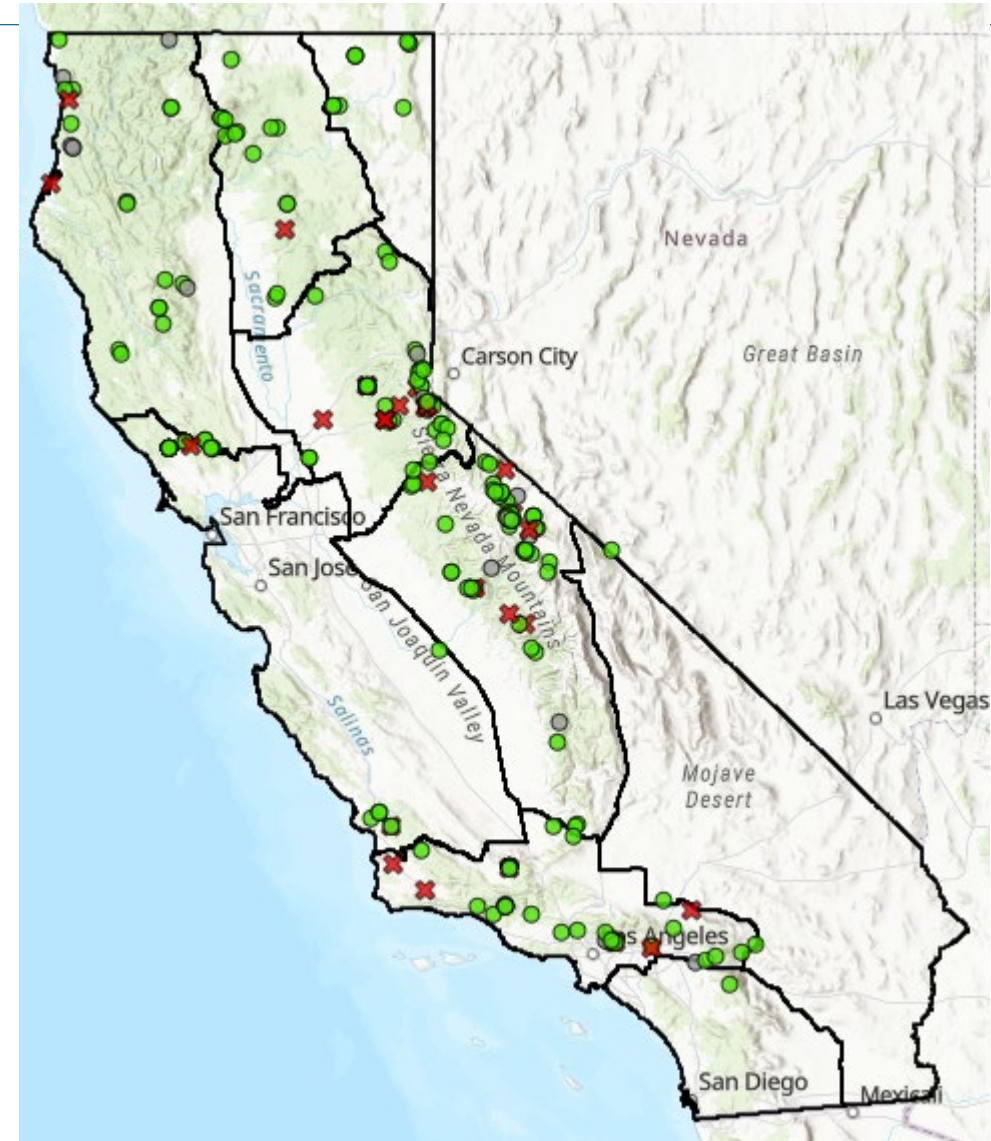
Sampling Effort

Den checks

Season	Immobilization	Observation	Total
2023-2024	6	0	6
2024-2025	15	9	24
2025-2026	16	35	51

} 81

- >230 black bears collared
- >80 litters monitored
- >40 visual counts
- >30 camera trap stations
- Aiming to collar 65 more this year



Cat Steinbeiser, Mariah Denhart, Regions 1-6

Preliminary Vital Rates Estimates

Vital rate	California prior	Current IPM prior
Litter size	1.84	Age 2: 2.00 Age 3: 2.00 Age 4: 2.00 Age 5+: 2.74
Sex proportion	0.46	0.46
Adult survival	In progress	Male harvest: 0.80 Female harvest: 0.90 Non-harvest: 0.90
Cub survival	In progress	Age 0-0.5: 0.80 Age 0.5-1.5: 0.68
Pregnancy rate	0.43	Age 2: 0.003 Age 3: 0.25 Age 4: 0.53 Age 5+: 0.48
Recovery rate	0.80	0.98



Peter Tira

What Else Do Den Checks Tell Us?



Tim Kroeker



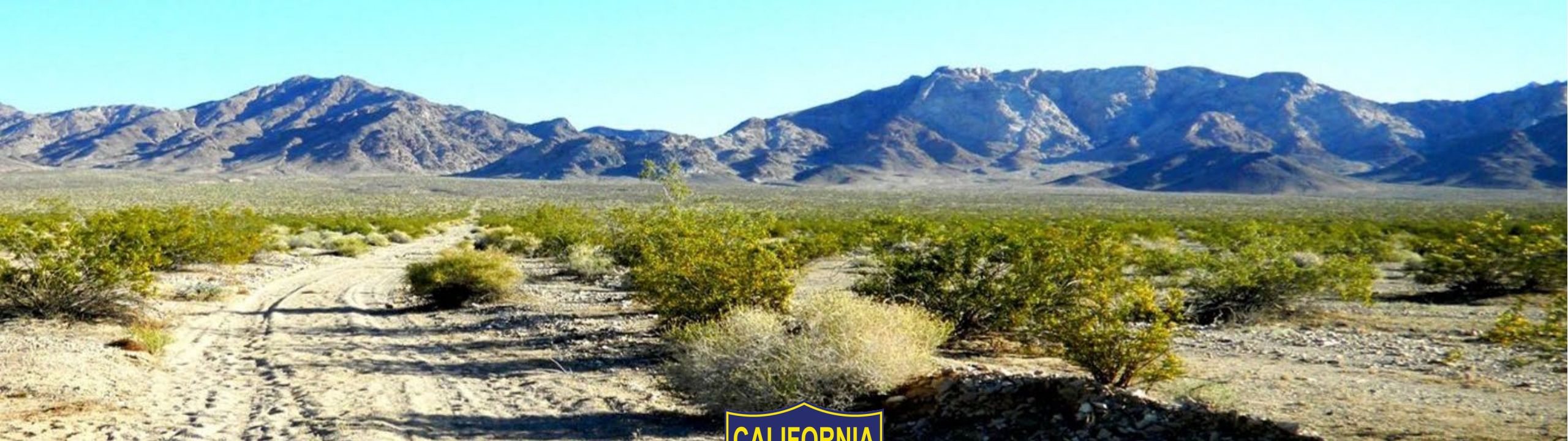
Mariah Denhart

- Animal welfare (collar fit!)
- Disease
- Tagging opportunity
- Sampling opportunity
- Information on seasonal activity and BCR-scale differences
- Habitat selection

What's Next?

- Review and implement Monitoring Plan including density studies
- Track vital rates longitudinally
- Focus capture effort on adult females
- Continue to update IPM iteratively
- 2027 regulation changes





BIG GAME REGULATIONS

Regina Vu, Wildlife Regulations Coordinator

Black Bear: New Regulations for 26/27



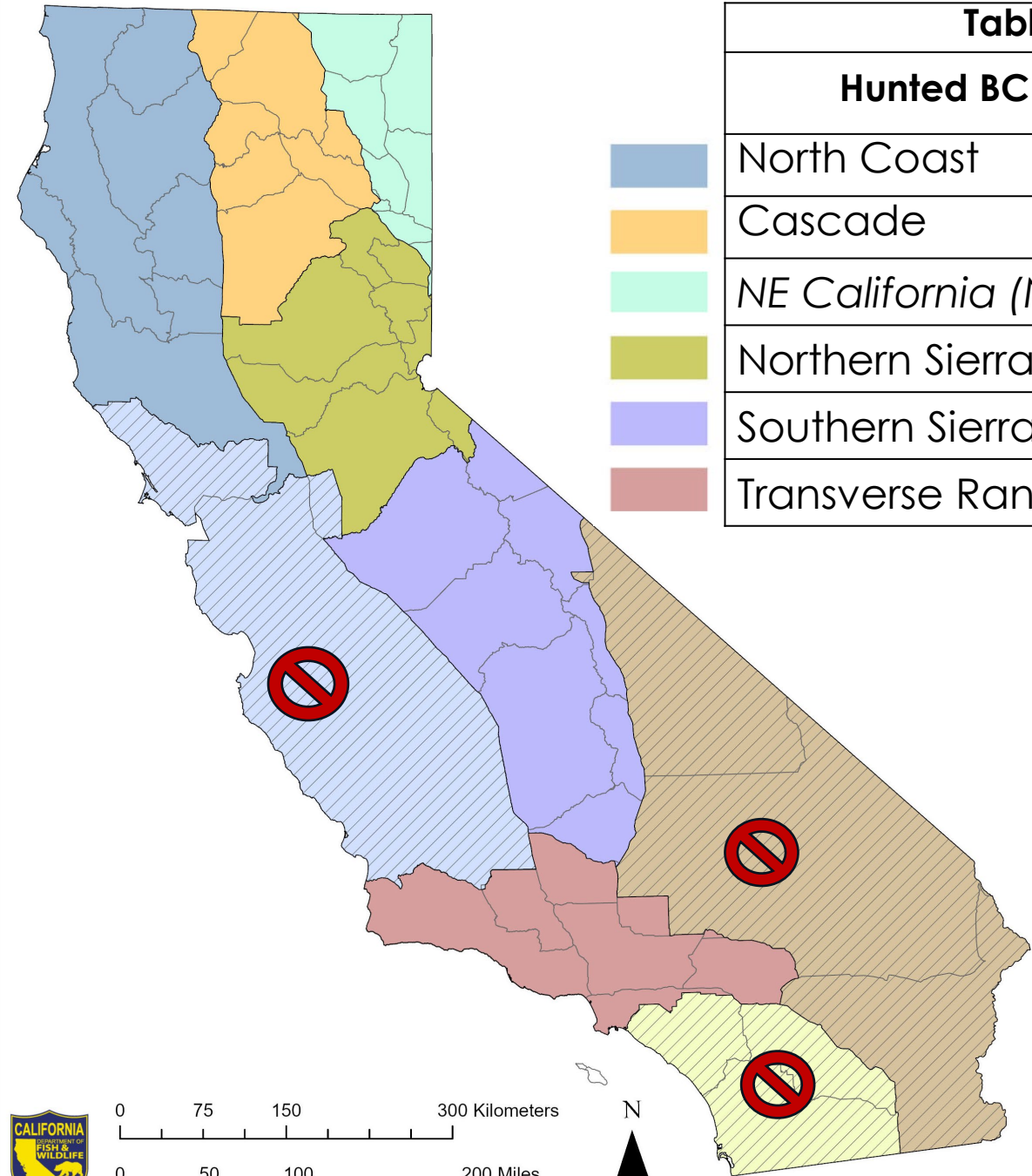
- Expand the hunt area to include the entirety of Modoc and Lassen counties, the complete Northeastern BCR
- Authorize a second bear tag

Black Bear Concepts for 27/28

- Implement Bear Conservation Regions (BCRs) with harvest thresholds
- Revise the cub weight limit (50 → 80 lbs)
- Align black bear general opener with deer general opener in all zones
- Shift black bear archery close date the day before general opener in all zones
- Validation process:
 - Consolidate tooth extraction (10 calendar days) and tag validation (1 business day) processes into single process with 10 calendar day deadline
 - Mention online reporting option, same as deer
 - Specify that premolar tooth extraction is mandatory
 - Implement sunrise date for non-reporting fee starting July 1, 2028

Table 1: Conceptual Harvest thresholds for Hunted BCRs

Hunted BCRs	N	Mean harvest	Threshold	Threshold %
North Coast	22,591	449	500 - 800	2.2% - 3.5%
Cascade	13,691	181	400 - 500	2.9% - 3.7%
<i>NE California (NEW)</i>	2,263	<i>N/A</i>	50 - 90	2.2% - 4.4%
Northern Sierra	11,453	266	370 - 450	3.2% - 3.9%
Southern Sierra	7,341	266	370 - 400	5.0% - 5.5%
Transverse Ranges	1,605	54	90 - 120	5.6% - 7.5%



0 75 150 300 Kilometers

0 50 100 200 Miles

N



Elk Regulations: New for 26/27



- Add shotguns as a method of take for elk, for SHARE hunts (Statewide)
- Establish a SHARE hunt in the Central Coast Elk Hunt Zone (Region 4)
- Increase SHARE elk tag allotments (Statewide)
- Increase bull elk tag quotas in Owens Valley hunts (Region 6)
- Specify elk bag and possession limit for general, fundraising, SHARE, and cooperative elk hunts. This shall be one elk per individual in the hunt drawn. This bag and possession limit will not apply to PLM tags. (Statewide)
- Open a balance of the state hunt zone to administer SHARE hunts on local populations of elk, outside of named hunt zones (Statewide)

Elk: Concepts for 27/28

- Adjust tag quotas or season dates in any of the existing hunt zones
- Interested in hunt opportunities that may address conflict
- Streamline and reorganize elk regulations
 - Subsections for boundaries, season dates, quotas, and definitions, conditions, tagholder responsibilities
 - Remove unused subsections
- Rename "hunt areas" to "Elk Management Zones"

Bighorn Sheep Regulations: New for 26/27



- New hunt zones
 - Zone 11: Granite and North Bristol Mountains
 - Zone 12: Providence, Woods, and Hackberry Mountains
 - Zone 13: Castle Mountains and Piute Range
- Reallocate a fundraising tag
 - SZFT 1: Zone 10 (no change)
 - SZFT 2: Zone 2 → Zone 12
- Reduce tags in the White Mountains
 - Period 1: 3 tags → 2 tags
 - Period 2: 2 tags → 1 tag

Bighorn Sheep Concepts for 27/28

- Adjust tag quotas



Pronghorn Antelope Regulations

2026/27 Regulations Cycle

- DFW recommended no change from existing regulations
- Fish and Game Commission followed with a decision not to proceed.

2027/28 Regulations Cycle

- No proposals



Deer Regulations

- No changes proposed
- Program focus is on the deer management plan



Private Lands Management: Concepts for 27/28

- Department access to PLM properties
- Form of public access
- Clarify process for removal from the PLM Program
- Elk tag eligibility
- Disease testing
- Remove USGS quad map requirement
- Update or remove the Department's address





SHARE PROGRAM

PRESENTED BY:

Big Game Conservation and Management Unit
California Department of Fish and Wildlife

2025 SHARE Program Summary



64,213 ACRES

Total acreage across 62 properties accessed for public recreation.



364 HUNTS

Total hunting opportunities including 137 elk tags, with 67% harvest success rate.



1,223 PARTICIPANTS

Hunters and non-hunting companions who enjoyed these opportunities.

2026 SHARE Elk Hunts



NEW Properties for SHARE elk hunts in Gabilan, Camp Roberts, and Northwest FH7



60,445 Acres across 46 properties



165 Elk tags available for 2026



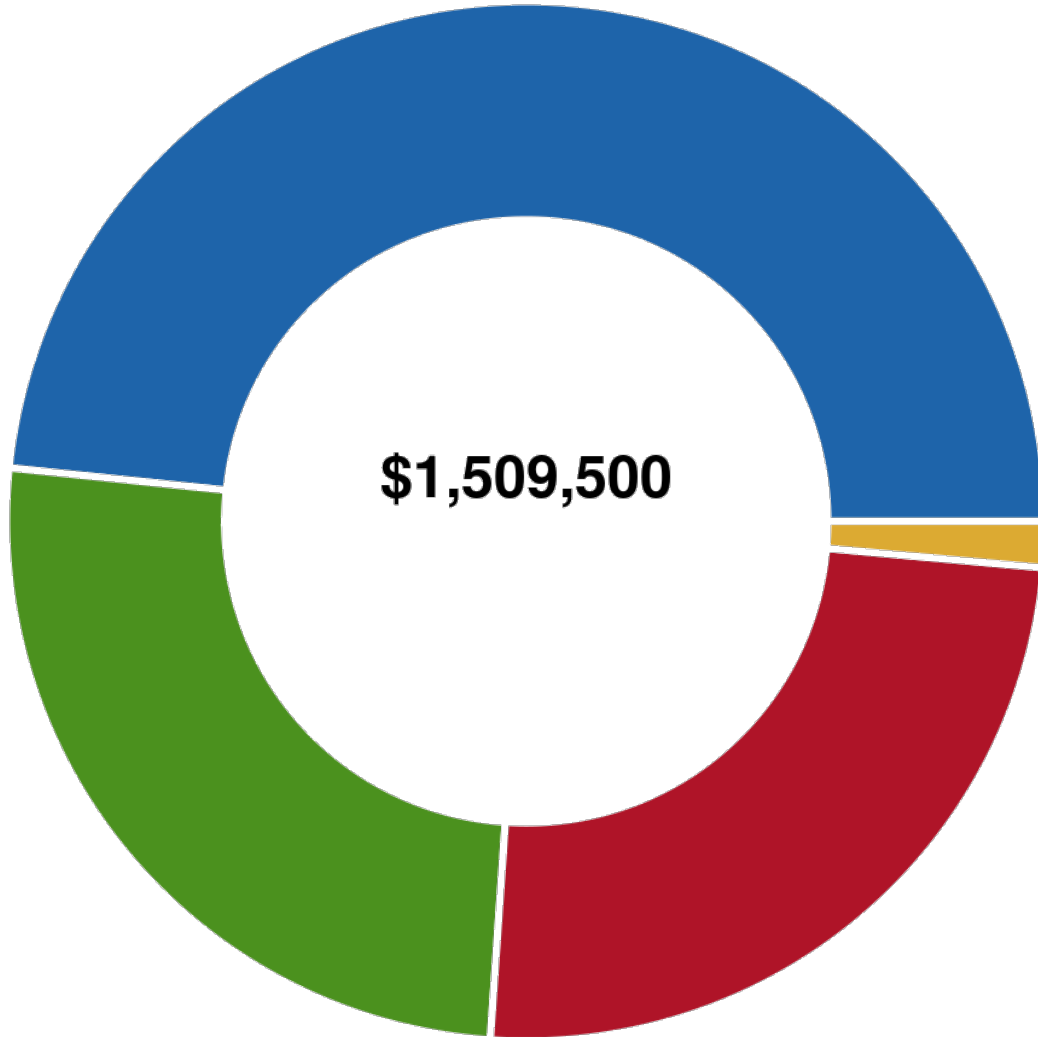
2026 SHARE Applications to be posted on **June 16**, the deadline is **July 24**



BIG GAME BUDGET REVIEW AND OUTLOOK

*Mario Klip, Game Conservation and Wildlife Connectivity
Program Manager*

Fundraising Tags Update

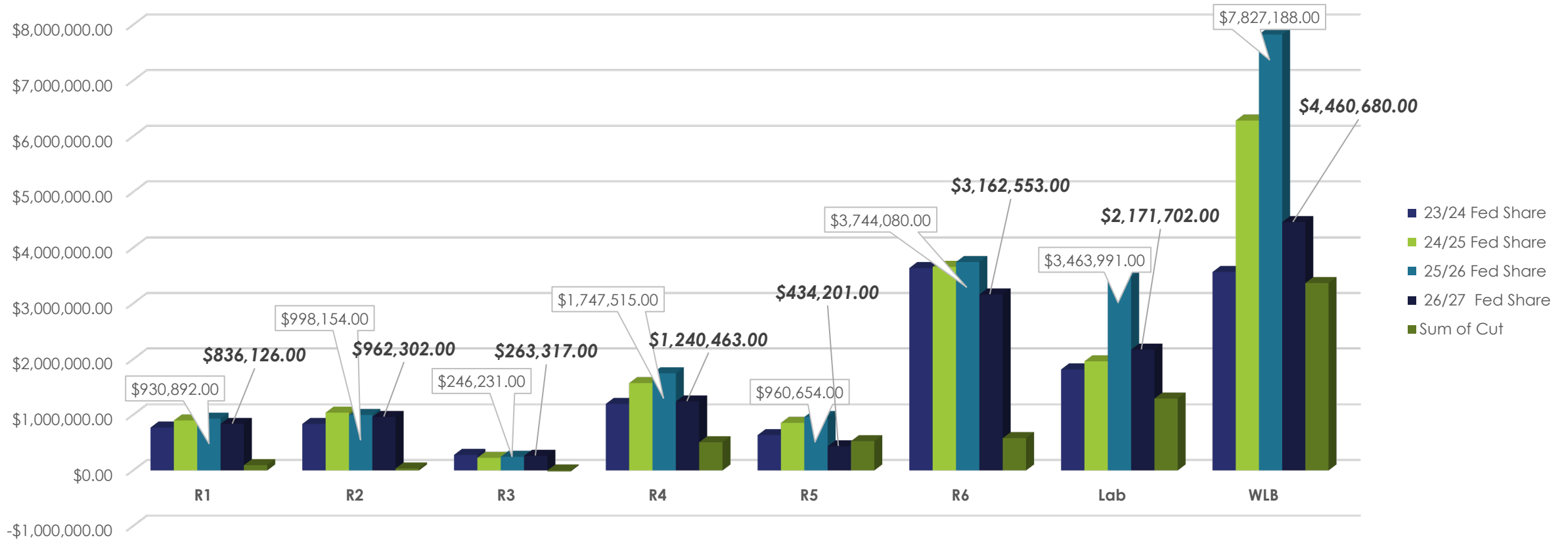


Results in \$1,434,025 going to CDFW



- Bighorn Sheep \$730,000 (48.4%)
- Deer \$385,500 (25.5%)
- Elk \$372,500 (24.7%)
- Pronghorn \$21,500 (1.4%)

PR STATUS



BGMA allocation defined in July 2026, expect similar amount as FY 25/26 (~4 million)

PR down from FY 25/26 to FY 26/27 by 6.3 million for Game (cuts in limited term personnel)

PR down for FY 27/28 by ~\$5 million for all PR combined.

BGMA Fund Estimates Outlook FY 26/27

Total Estimated Allocation	\$ 4,000,000
Helicopter Contracts	\$ 1,450,000
Staff Salaries	\$ 1,500,000
Other Contracts (fDNA, FLIR, UC Berkeley etc.)	\$ 800,000
Balance for equipment etc.	\$ 250,000

- BGMA utilized to pay for staff salaries due to PR reductions.
- There is room to purchase equipment e.g. collars for FY 26/27 and may be limited in FY27/28.

Questions

Email us: biggame@wildlife.ca.gov

Provide feedback on accessing hunting and fishing regulations through the [CDFW Regulations Unit Survey](#)

