

2024 FISCAL YEAR ANNUAL REPORT

Utah's Predator Control Program Summary

Mule Deer Protection Act (SB245) and Predator Control Funding (SB87)



Program activities and data from July 1, 2023 through June 30, 2024

Prepared by the Utah Division of Wildlife Resources



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Utah's Predator Control Program Summary, Fiscal Year 2024

Program Activities and Data from July 1, 2023, through June 30, 2024

Utah's *Mule Deer Protection Act* (SB245) and *Predator Control Funding* (SB87) were enacted in July of 2012. The enabling legislation is codified in Utah 23A-11-4, giving the Utah Wildlife Board authority to make rules "to establish programs to accomplish... general predator control, including programs that offer incentives or compensation to participants who remove a predatory animal that is detrimental to mule deer production."

To administer the bounty program the Utah Wildlife Board approved Administrative Rule R657-64, *Predator Control Incentives*. Under R657-64 the Utah Division of Wildlife Resources (Division) implemented the General Predator Control Program, which tracks harvest and participation and provides payment to participants in the program. The Division established locations throughout the state where people can check in coyotes for payment. Each participant must submit the scalp of the animal with ears attached, the lower jaw, and data on the kill location recorded in the Division-approved app.

This report summarizes details from the implementation of the Act in Fiscal Year 2024 (FY24), which runs from July 1, 2023 to June 30, 2024. In FY24, \$250,000 was allocated to Utah's Predator Control Program.

Participation, Payments, and Coyotes Submitted for Payment

FY24 was the twelfth year of the General Predator Control Program. A total of 3,045 coyotes were checked in for \$152,250 in compensation, a decrease of 20% compared to 3,798 coyotes in FY23 (Figure 1).

In FY24, 326 individuals submitted coyotes through the General Predator Control Program. The number of participants was down 16.2% from the previous year (n=389). The number of coyotes submitted per hunter remained similar to FY23. In FY24 17% of participants submitted only one coyote and 57% of participants submitted five or more coyotes. Only 1.8% of participants submitted more than 50 animals.

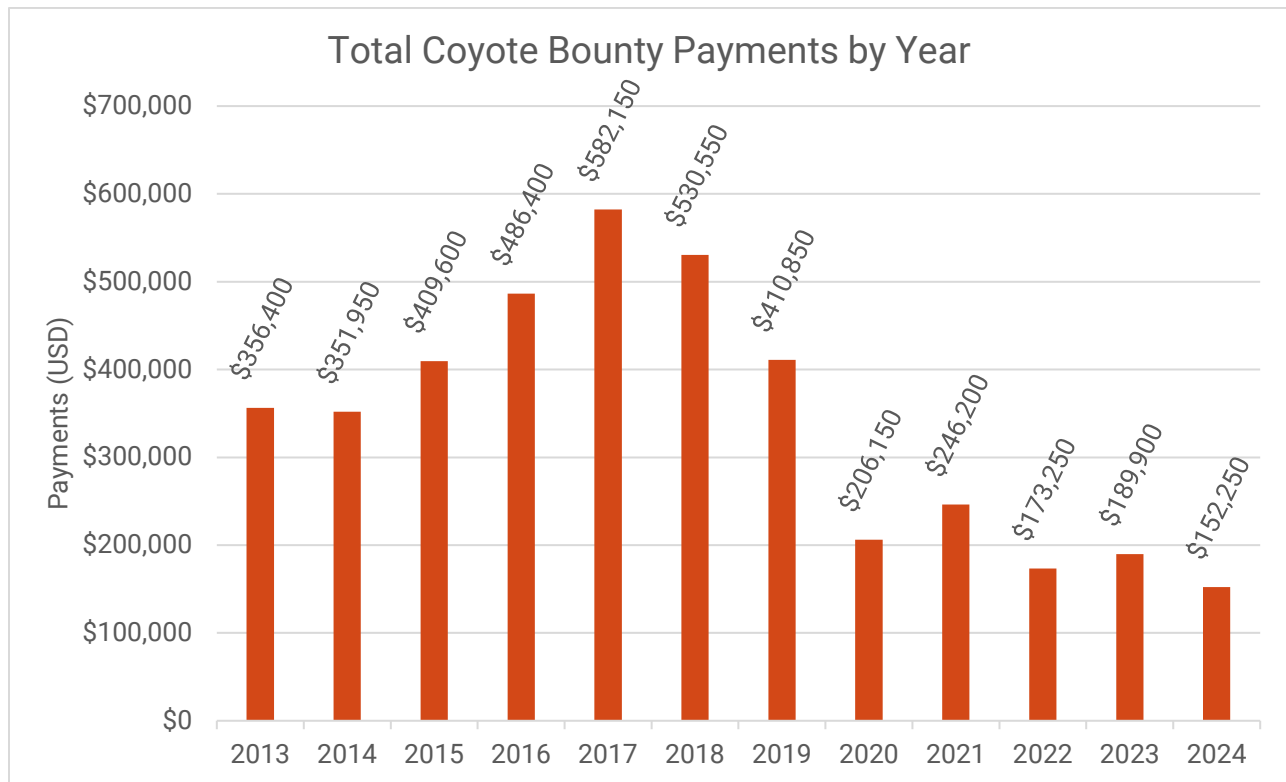


Figure 1. Utah legislatively appropriated funds paid out to participants in the coyote bounty program. Figures do not include costs incurred for program administration.

Impact of the Program: Estimates from Survey Data

The Division's yearly furbearer survey provides supplementary information about coyote harvest in Utah. In the 10 years preceding the implementation of the *Mule Deer Protection Act*, annual coyote take reported in the furbearer harvest report averaged 6,332 per year. The reported harvest of coyotes by hunters holding a furbearer license during the 2023-2024 season was 2,789.

The total reported coyote take by the general public, consisting of coyotes turned in for bounty payments (3,045) and coyotes reported in the furbearer harvest survey (1,676), during FY24 was 4,721. To calculate an accurate total without duplication, the reported take from the furbearer harvest survey was corrected for coyotes counted in both the harvest survey and bounty payout.

Additionally, the Division has a cooperative interagency agreement with the Utah Department of Agriculture and Food (UDAF) to remove coyotes under this program. This agreement began midway through FY24 when UDAF chose to take on the work previously done by the United

States Department of Agriculture Wildlife Services. UDAF personnel reported removing 3,830 coyotes during FY24. Of the coyotes killed by UDAF, 577 coyotes were shot from helicopters and fixed-wing aircraft in mule deer core areas over 265 flight hours. Thermal technology led to the take of an additional 83 coyotes while flying mule deer core areas and 91 coyotes with ground-based firearms.

The total estimated number of coyotes killed for FY24 through the General Predator Control Program (3,045), reported through the furbearer harvest survey (1,676), and by UDAF (3,830) was 8,551 coyotes (Figure 2).

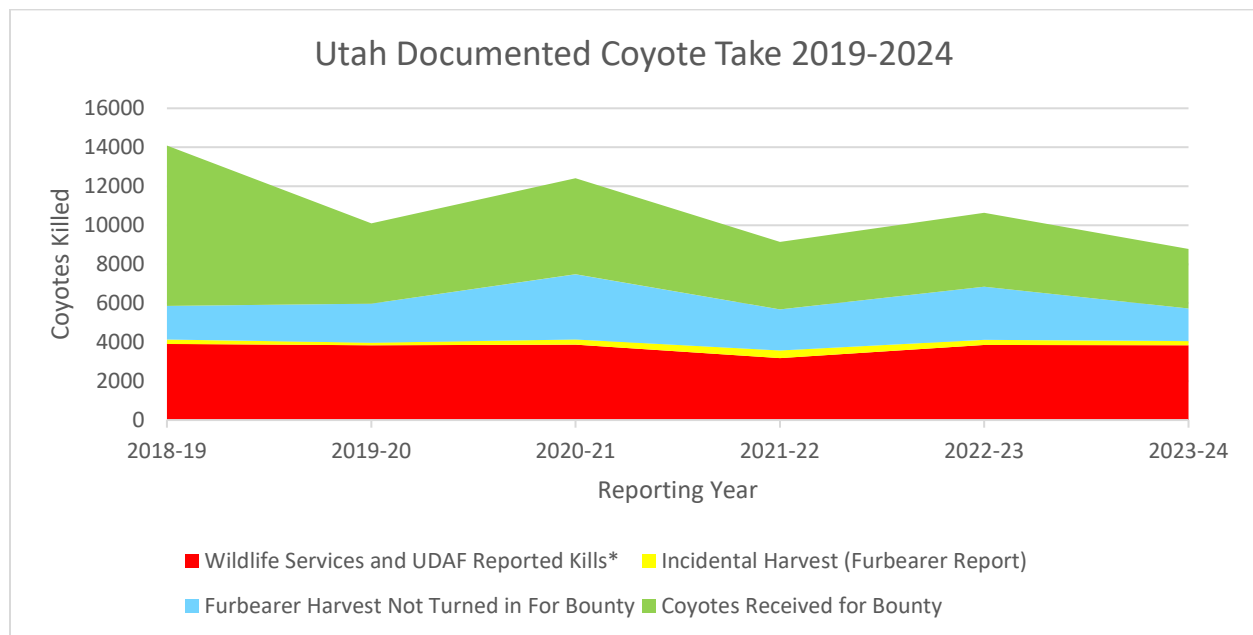


Figure 2. The total number of coyote kills documented in Utah during FY24.

*Wildlife Services conducted targeted coyote removal from 2018-23 and UDAF took over for 2023-24.

Biological Data

Biological data was compiled for coyotes submitted via the Utah Coyote Bounty Reporter form in the Survey123 app and checked in for bounty between July 1, 2023, and June 30, 2024. The results show that 840 (48%) of the coyotes were female and 896 (52%) were male. The take method reported for these coyotes included shoot/call (1294; 75%), trap/snare (397; 23%), roadkill (34; 2%), and other methods (11; 1%).

Tooth data to establish the age structure of coyotes turned in for bounty was not conducted in FY20-FY24. Please see previous annual reports for age data.

Temporal Distribution of Coyote Submissions and Harvest

Coyote kills in FY24 peaked in December 2023 (Figure 3) and bounty submissions peaked in February 2024 (Figure 4). This follows the general pattern observed in previous years, reflecting a seasonal increase in coyote kills through the winter months, with a lag between kill data and bounty check-in.

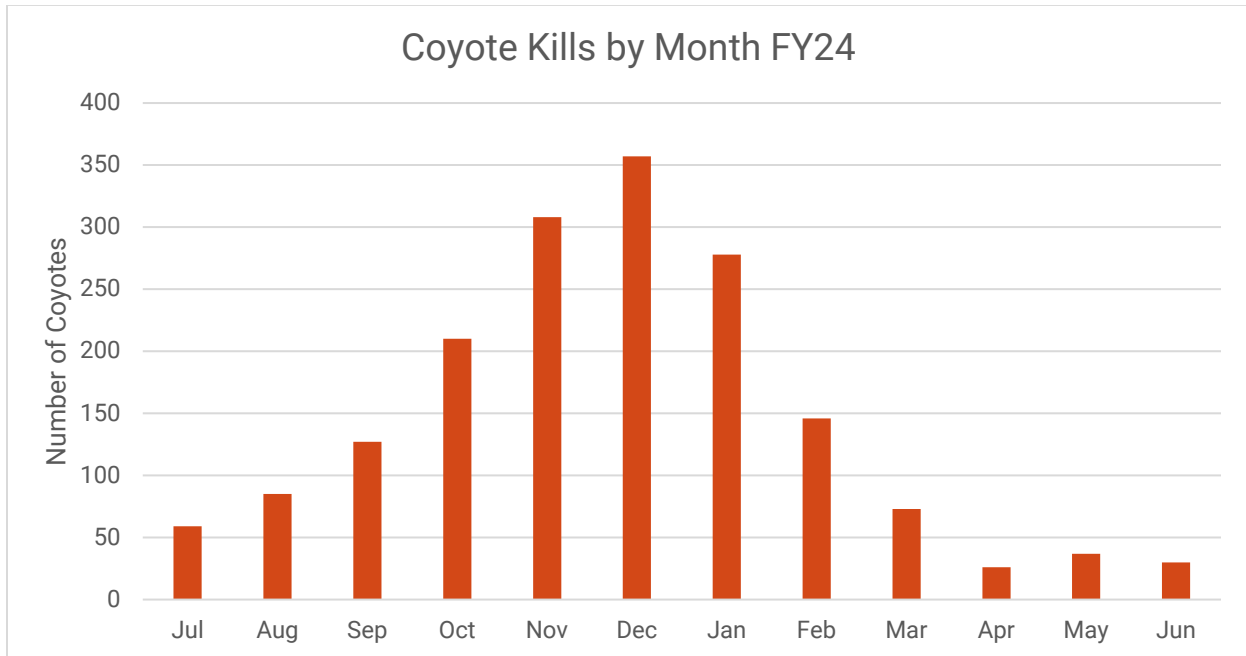


Figure 3. Number of verified coyotes killed and reported in the Utah Bounty Reporter Survey123 app by month in FY24.

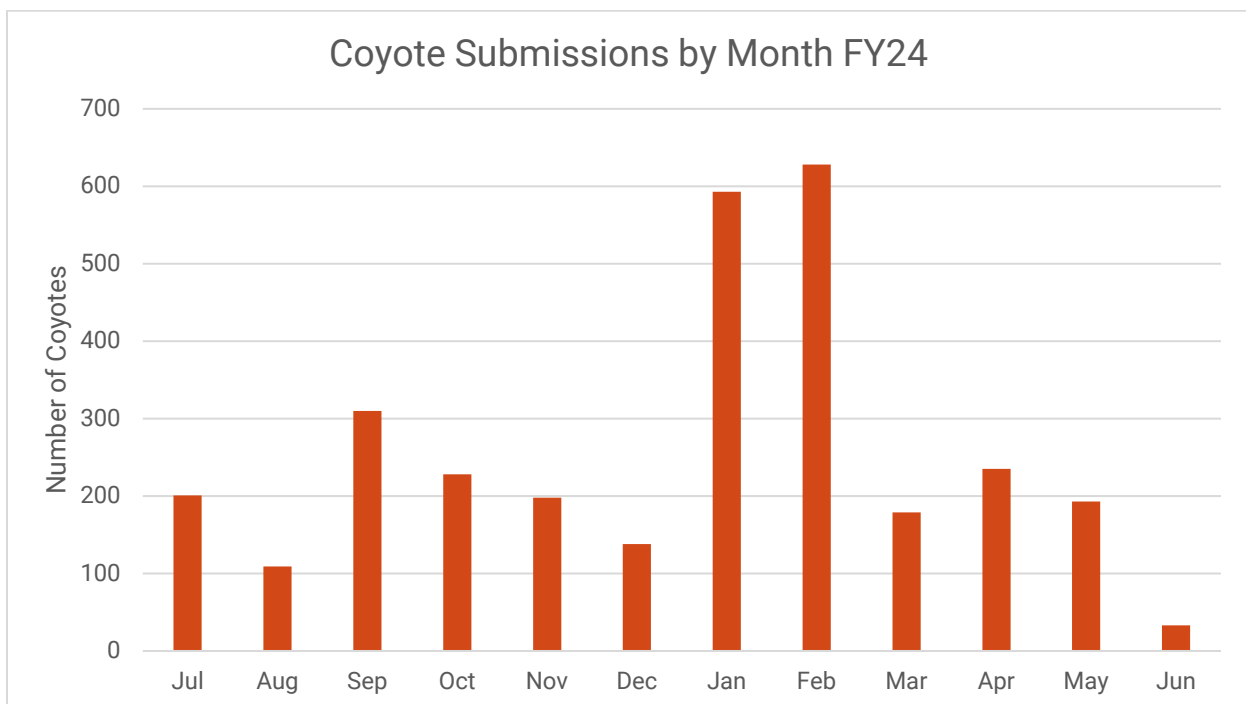


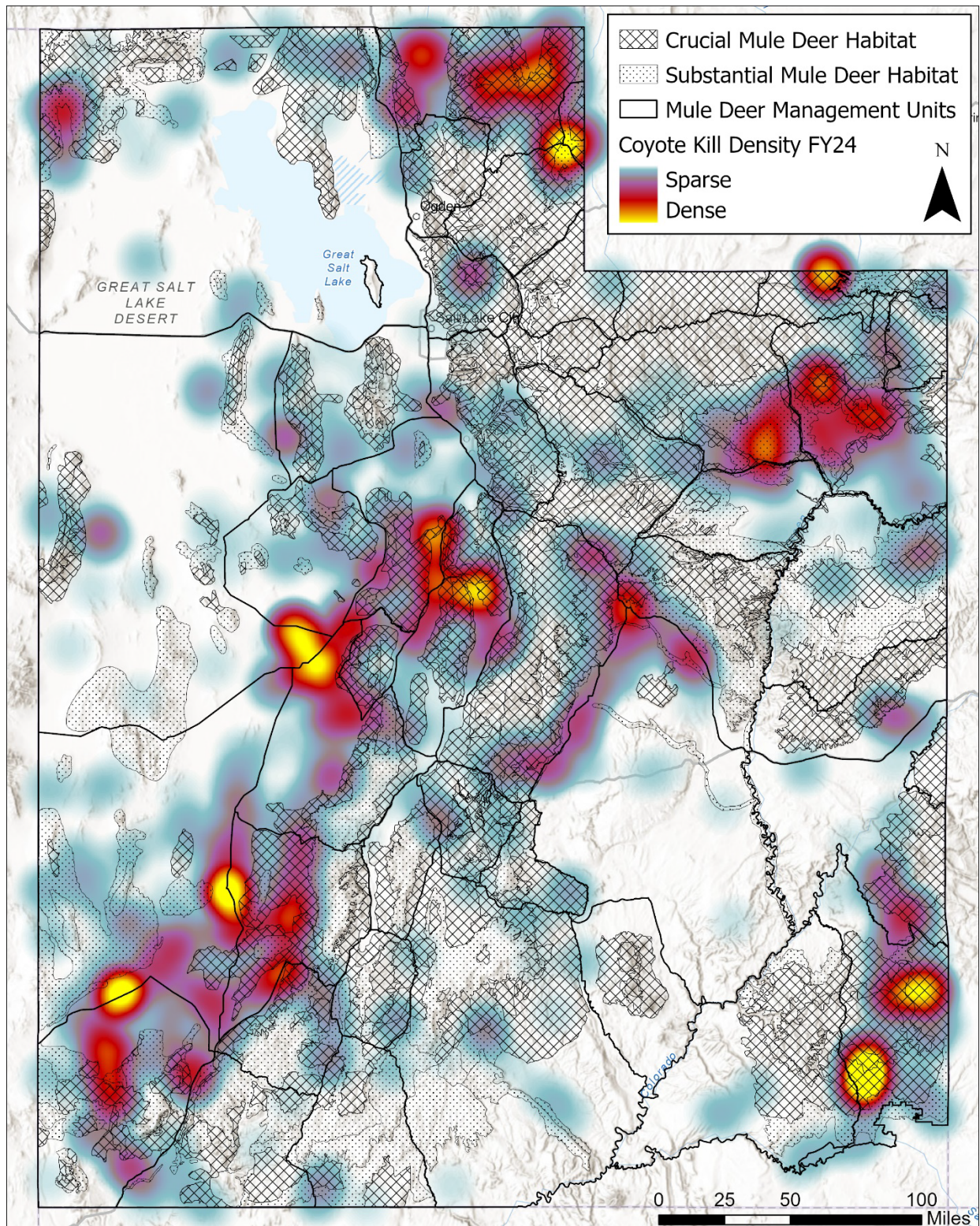
Figure 4. Number of coyotes checked in for bounty payments by month during FY24.

Spatial Distribution of Coyote Take

In FY24 1,699 coyotes were recorded in the bounty reporter app with usable spatial data and verified at a check-in¹. Of those, 733 (43%) were killed in crucial mule deer range, 177 (10%) were killed in substantial value mule deer range, and 789 (47%) were killed outside of the mapped mule deer range (Figure 5).

Analysis of FY24 coyote removal locations within Utah's deer management units found that coyote removal was variable across the state. Of the units that had coyote kills, the Southwest Desert unit had the most kills (162), and the Chalk Creek and Henry Mountains units had the fewest, with only 2 coyote kills documented (Table 1). Coyote removal locations were also recorded by county, and the highest number of kills (181) was in Iron county (Table 2). Removals were fairly dispersed across the state this year, with the greatest number occurring in central and southern Utah (Figure 5).

¹Coyotes killed during FY24 may be verified at check in during FY24 or FY25 since participants have 365 days from the kill date to submit their coyotes for payment. As such, the verified number of coyotes with reliable spatial data at the time of this report is lower than the total number of coyotes killed in FY24 due to the check in lag (as shown in Figures 3 and 4).



Esri, TomTom, Garmin, FAO, NOAA, USGS, Bureau of Land Management, EPA, NPS, USFWS, Esri, USGS

Figure 5. Map of coyote removal densities from coyotes submitted for bounties in FY24, with boundaries for mule deer management units and mapped mule deer habitat. 47% of coyotes were killed outside of mapped mule deer habitat, 43% were killed in crucial mule deer range, and 10% were killed in substantial value mule deer range.

Number of Coyotes Submitted by Deer Unit in FY24		
Mule Deer Management Unit	Number of Coyote Bounties Paid	Percent of FY24 Bounties
Antelope Island	0	0%
Beaver	97	5.7%
Book Cliffs	31	1.8%
Box Elder	55	3.2%
Cache	153	9.0%
Central Mtns. Manti	62	3.6%
Central Mtns, Nebo	77	4.5%
Chalk Creek	2	0.1%
East Canyon	11	0.6%
Fillmore	109	6.4%
Henry Mtns	2	0.1%
Kamas	0	0%
La Sal, Dolores Triangle	0	0%
La Sal, La Sal Mtns	36	2.1%
Monroe	5	0.3%
Morgan-South Rich	22	1.3%
Mt. Dutton	6	0.4%
Nine Mile, Anthro	11	0.6%
Nine Mile, Range Creek	23	1.4%
North Slope, Summit	0	0%
North Slope, Three Corners	8	0.5%
North Slope, West Daggett	26	1.5%
Ogden	8	0.5%
Oquirrh-Stansbury	23	1.4%
Panguitch Lake	25	1.5%
Paunsaugunt	11	0.6%
Pine Valley	111	6.5%
Plateau, Boulder/Kaiparowits	20	1.2%
Plateau, Fishlake	11	0.6%
Plateau, Thousand Lakes	4	0.2%
San Juan, Abajo Mtns	137	8.1%

Table 1. Number of coyotes submitted to the predator control program within each deer unit in FY24.

Number of Coyotes Submitted by Deer Unit in FY24 (Continued)		
Mule Deer Management Unit	Number of Coyote Bounties Paid	Percent of FY24 Bounties
San Juan, Elk Ridge	11	0.6%
San Rafael	56	3.3%
South Slope, Bonanza/Vernal	103	6.1%
South Slope, Diamond Mtn	6	0.4%
South Slope, Yellowstone	60	3.5%
Southwest Desert	162	9.5%
Wasatch Mtns, East	15	0.9%
Wasatch Mtns, West	23	1.4%
West Desert	160	9.4%
Zion	17	1.0%

Table 1 (continued). Number of coyotes submitted to the predator control program within each deer unit in FY24.

Number of Coyotes Submitted by County in FY24		
County	Number of Coyote Bounties Paid	Percent of FY24 Bounties
Beaver	134	7.9%
Box Elder	63	3.7%
Cache	71	4.2%
Carbon	45	2.6%
Daggett	35	2.1%
Davis	0	0%
Duchesne	62	3.6%
Emery	64	3.8%
Garfield	32	1.9%
Grand	20	1.2%
Iron	181	10.7%
Juab	105	6.2%
Kane	14	0.8%
Millard	180	10.6%
Morgan	11	0.6%
Piute	1	0.1%
Rich	97	5.7%
Salt Lake	5	0.3%
San Juan	176	10.4%
Sanpete	58	3.4%
Sevier	30	1.8%
Summit	2	0.1%
Tooele	49	2.9%
Uintah	142	8.4%
Utah	48	2.8%
Wasatch	11	0.6%
Washington	53	3.1%
Wayne	10	0.6%
Weber	0	0%

Table 2. Number of coyotes submitted to the predator control program within each county in FY24.

Conclusion

Utah's Predator Control Program continued across the state during Fiscal Year 2024. Take has remained relatively consistent over the last five years. Reported bounties were considerably higher before introducing fraud reduction measures in 2019. Changes in mule deer population estimates since the implementation of the program have varied by unit; however, a central Utah study found that consecutive years of coyote removal in mule deer fawning habitat increased neonate mule deer survival².

Further assessment of coyote removals and fawn recruitment is necessary to understand if Utah's General Predator Control Program benefits mule deer at any scale. Many factors that influence deer populations, such as weather, habitat conditions, and alternative prey availability, need to be accounted for when assessing the impacts of the program. In an effort to assess the effectiveness of the program and address the aforementioned details more closely, a study was initiated in 2017. Results from this study will become available in the future.

²McMillan, B. R., Hall, J. T., Freeman, E. D., Hersey, K. R., & Larsen, R. T. (2023). Both temporal and spatial aspects of predator management influence survival of a temperate ungulate through early life. *Frontiers in Ecology and Evolution*, 11(1087063). <https://doi.org/10.3389/fevo.2023.1087063>