

2023 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, 2022 through June 30, 2023

Prepared by the Utah Division of Wildlife Resources



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Utah's *Mule Deer Protection Act* (SB245) and *Predator Control Funding* (SB87) were put into effect in July of 2012. The enabling legislation is codified in Utah 23A-11-4, giving the Utah Wildlife Board authority to make rule "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 to the lower jaw, and data on kill location.

This report summarizes details from the implementation of the Act in Fiscal Year 2023 (FY23), which runs from July 1, 2022 to June 30, 2023.

In FY23, \$250,000 was allocated to the bounty program.

Participation, payments and coyotes submitted for payment

This is the tenth year of the General Predator Control Program, and 3,798 coyotes were turned in for \$189,900 in compensation, an increase of 7% compared to 3,492 coyotes in FY22.

In FY23, 388 individuals submitted coyotes through the General Predator Control Program. The number of participants was down 5.6% from the previous year (n=411). The number of coyotes submitted per hunter remained similar to FY22. In FY23 53% of participants submitted five or more coyotes and 18% of participants submitted one animal. Only 2.8% of participants submitted more than 50 animals.

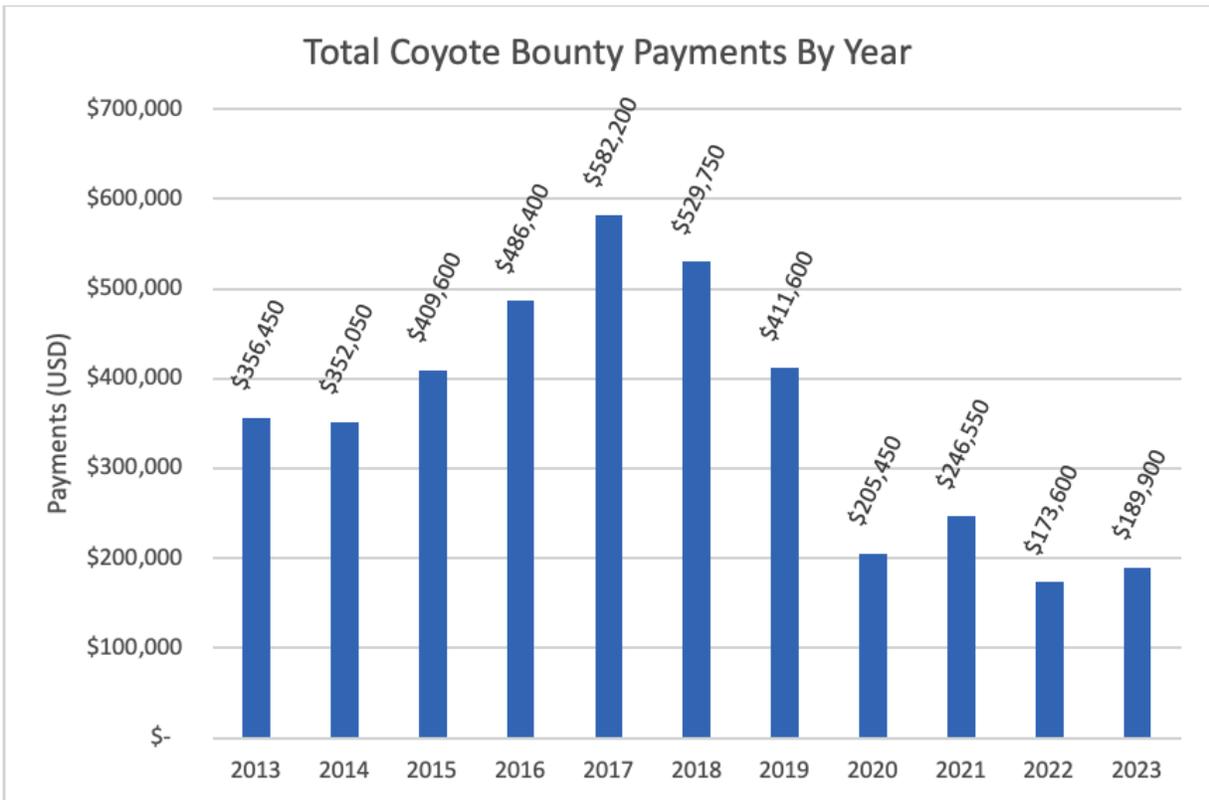


Figure 1. Utah legislatively appropriated funds paid out to participants in the coyote bounty program. Figures do not include costs incurred for program administration.

Impact of the Program: estimates from survey data

The Division's yearly furbearer survey provides supplementary information about coyote harvest in the state. In the 10 years preceding 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 was 4,255 during the 2022-2023 season.

The total reported coyote take by the general public consisting of killed coyotes turned in for bounty payments (3,798) and reported in the furbearer harvest survey corrected for coyotes counted in both the harvest survey and bounty payout (2,732), from July 1, 2021 to June 30, 2022 is 6,530.

In addition, the Division had a cooperative interagency agreement with USDA Wildlife Services (WS) to remove coyotes under this program. WS personnel reported removing 3,587 coyotes from July 1, 2022 to June 30, 2023. Of the coyotes killed by WS, 959 coyotes were shot from helicopters in mule deer core areas over the course of 327 flight hours, with an additional 995 outside of core areas over the course of an additional 261 flight hours. WS killed an additional 571 with ground based firearms, 825 shot from fixed wing aircraft, 148 snared, and 262 trapped with other methods.

Total estimated coyotes killed for FY23 through the General Predator Control Program (3,798), reported through the furbearer harvest survey (2,732) and by Wildlife Services (3,587) was 10,117 coyotes.

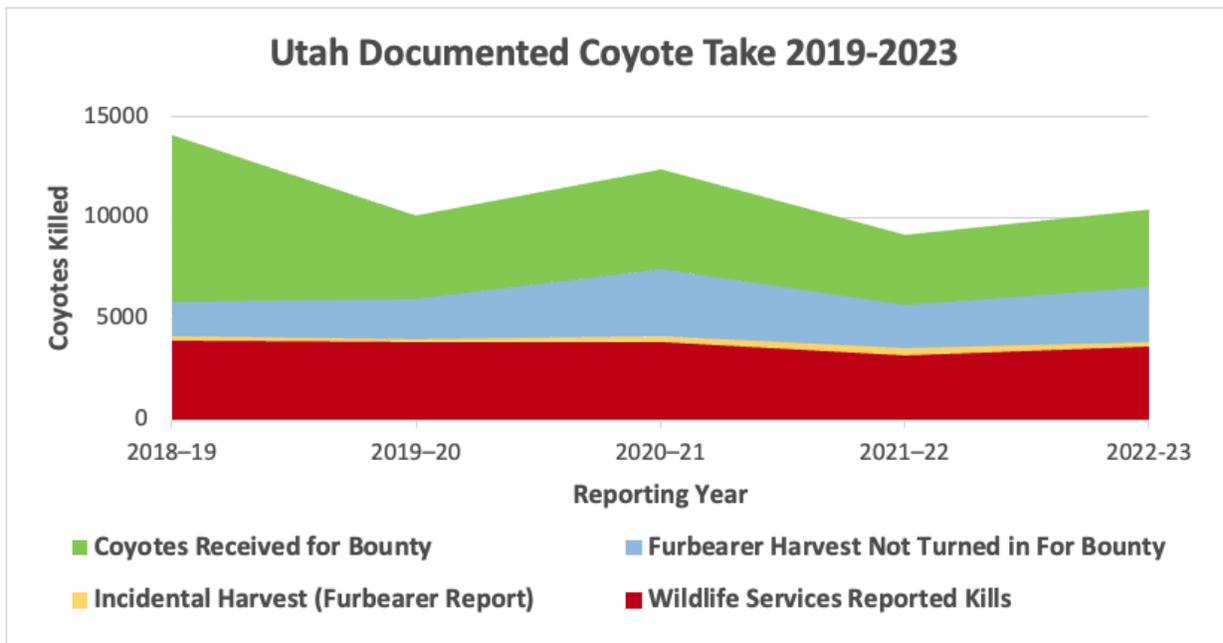


Figure 2. Total number of coyote kills documented in Utah during FY23.

Biological data

Biological data for coyotes turned in for bounty with kill dates between July 1, 2022 and June 30, 2023 submitted via the coyote bounty app shows that 1238 (49%) were female, 1299 (51%) were male. Take method reported included shoot/call (1,997; 79%), trap/snare (365; 14%), roadkill (75; 3%), and other methods (106; 4%).

Tooth data to establish age structure of coyotes turned in for bounty was not conducted in FY20-FY23. See previous annual reports for age data.

Temporal distribution of coyote submissions and harvest

Coyote bounty submissions in FY23 peaked in February 2023 and kills peaked in November 2022. This follows the general pattern observed in previous years, reflecting a seasonal increase in coyote kills through winter months, with a lag between kill data and bounty check-in.

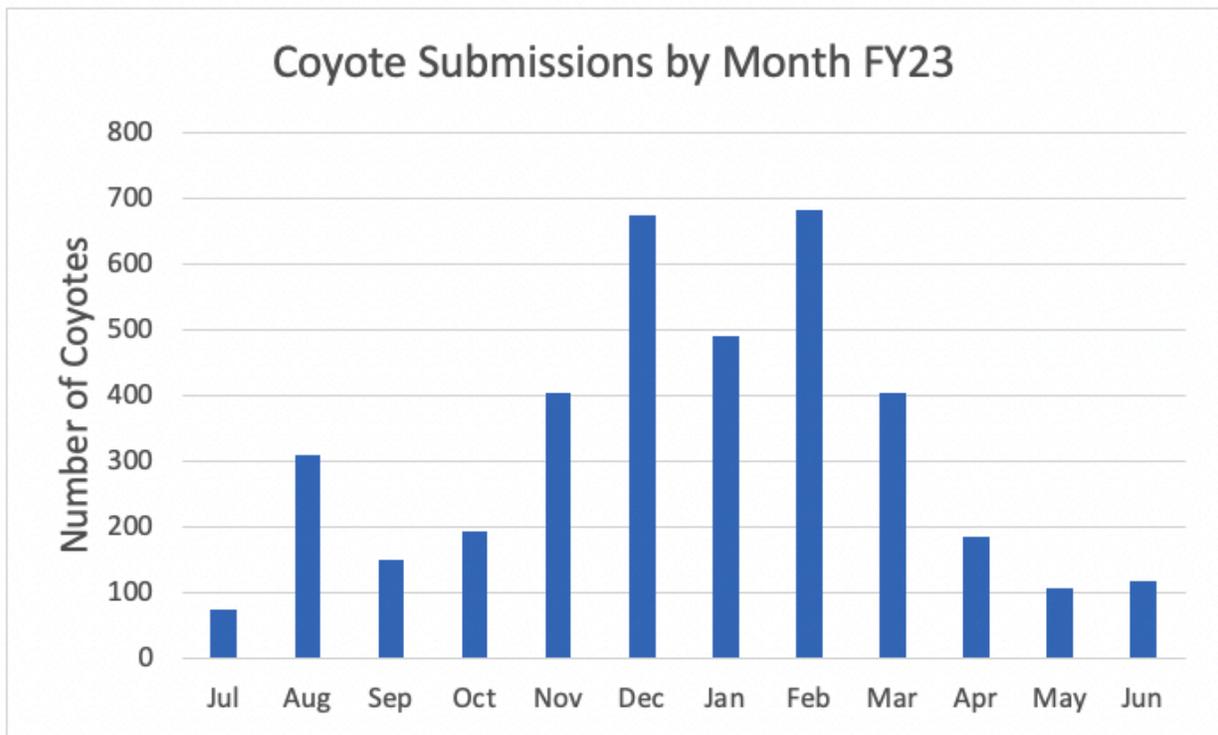


Figure 3. Number of coyotes checked in for bounty payments by month during FY23.

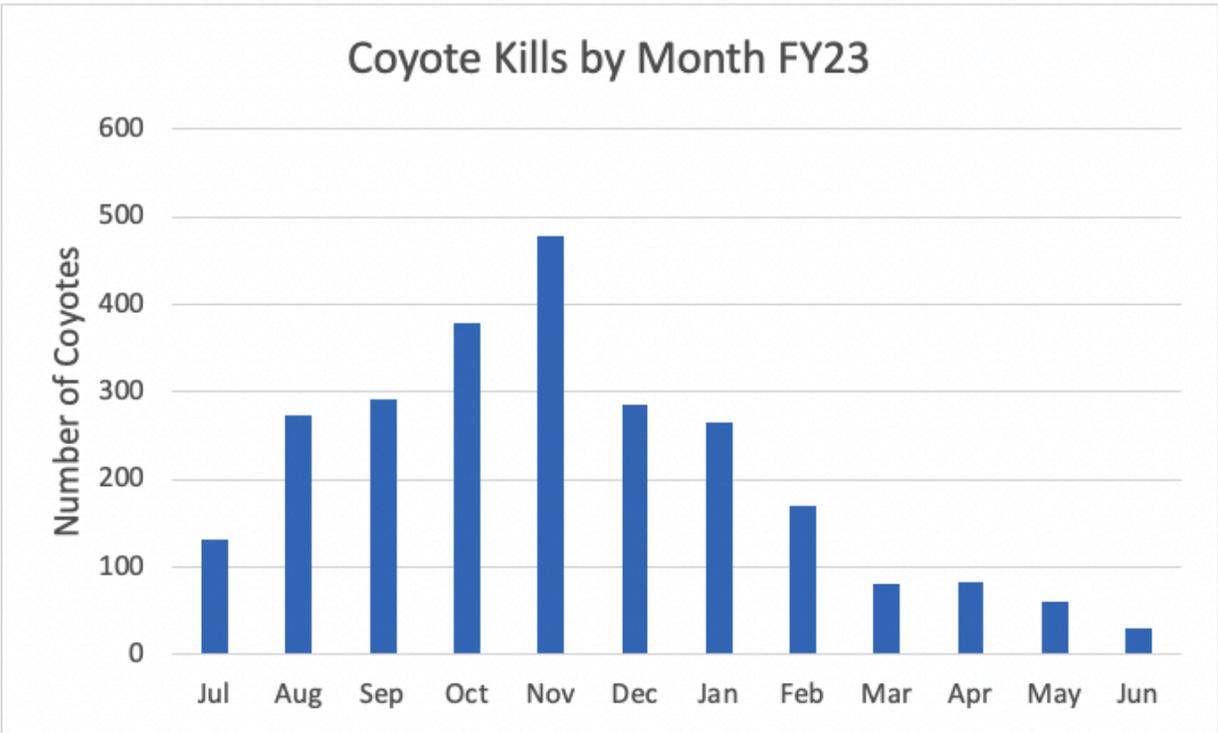


Figure 4. Number of verified coyotes killed and reported in the Utah Bounty Reporter app by month in FY23.

Spatial distribution of coyote take

In FY23 2,424, coyotes were recorded in the bounty reporter app with usable spatial data and verified at a check-in. Of those 952 (39%) were killed in crucial mule deer range, 285 (17%) were killed in substantial value mule deer range, and 1187 (49%) were killed outside of mapped mule deer range.

Coyote removal locations within each of Utah’s deer management units are tabulated in Table 1. Coyote removal is variable across the state, with the West Desert unit containing the most kills with 251, and the North Slope Summit with the fewest, with only a single coyote kill documented. Coyote removal locations are additionally tabulated by county in Table 2. Removals were more concentrated in the western portion of the state with the greatest number occurring in central and southern Utah.

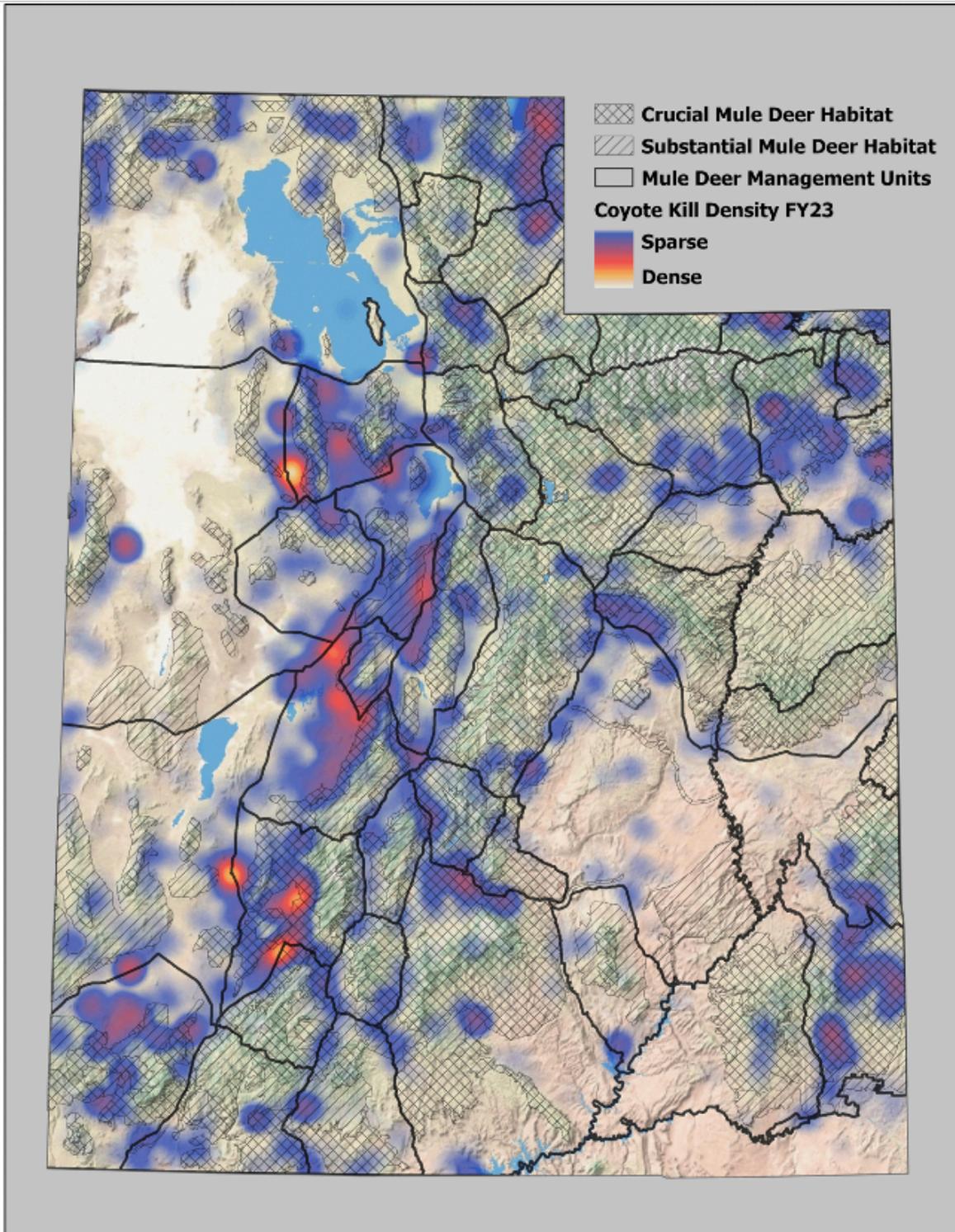


Figure 5. Map of coyote removal densities from coyotes submitted bounties in FY2023, with mule deer management units and mapped mule deer habitat. 49% of coyotes were killed outside of mapped mule deer habitat, 39% were killed in crucial mule deer range and 17% were killed in substantial value mule deer range.

Table 1. Number of coyotes submitted to the predator control program within each deer unit in FY23.

<u>Mule Deer Management Unit</u>	<u>Coyote Bounties Paid</u>	<u>Percent of FY23 Bounties</u>
Beaver	200	8.4%
Book Cliffs	17	0.7%
Box Elder	136	5.7%
Cache	176	7.4%
Central Mtns, Manti	28	1.2%
Central Mtns, Nebo	54	2.3%
Chalk Creek	4	0.2%
East Canyon	21	0.9%
Fillmore	202	8.5%
Henry Mtns	5	0.2%
Kamas	3	0.1%
La Sal, La Sal Mtns	45	1.9%
Monroe	6	0.3%
Morgan-South Rich	30	1.3%
Mt Dutton	10	0.4%
Nine Mile, Anthro	10	0.4%
Nine Mile, Range Creek	48	2.0%
North Slope, Summit	1	0.0%
North Slope, Three Corners	16	0.7%
North Slope, West Daggett	30	1.3%
Ogden	6	0.3%
Oquirrh-Stansbury	141	5.9%
Panguitch Lake	40	1.7%
Paunsaugunt	44	1.8%
Pine Valley	167	7.0%
Plateau, Boulder/Kaiparowits	57	2.4%
Plateau, Fishlake	9	0.4%
Plateau, Thousand Lakes	4	0.2%
San Juan, Abajo Mtns	136	5.7%

San Juan, Elk Ridge	14	0.6%
San Rafael	51	2.1%
South Slope, Bonanza/Vernal	127	5.3%
South Slope, Diamond Mtn	28	1.2%
South Slope, Yellowstone	30	1.3%
Southwest Desert	163	6.8%
Wasatch Mtns, East	14	0.6%
Wasatch Mtns, West	32	1.3%
West Desert	251	10.5%
Zion	33	1.4%

Table 2. Number of coyotes submitted to the predator control program within each county in FY23.

County	Coyote Bounties Paid	Percent of FY23 Bounties
BEAVER	204	8.5%
BOX ELDER	116	4.8%
CACHE	51	2.1%
CARBON	59	2.5%
DAGGETT	46	1.9%
DAVIS	1	0.0%
DUCHESNE	43	1.8%
EMERY	55	2.3%
GARFIELD	51	2.1%
GRAND	10	0.4%
IRON	285	11.9%
JUAB	160	6.7%
KANE	71	3.0%
MILLARD	253	10.5%
MORGAN	21	0.9%
PIUTE	3	0.1%

RICH	153	6.4%
SALT LAKE	8	0.3%
SAN JUAN	199	8.3%
SANPETE	11	0.5%
SEVIER	24	1.0%
SUMMIT	11	0.5%
TOOELE	207	8.6%
UINTAH	171	7.1%
UTAH	91	3.8%
WASATCH	6	0.3%
WASHINGTON	60	2.5%
WAYNE	24	1.0%
WEBER	6	0.3%

Conclusion

The Predator Incentive Program continued at a statewide scale during FY23. Take remains relatively consistent over the last four years. Reported bounties were considerably higher prior to implementation of fraud reduction measures in 2019. Changes in mule deer population estimates since the implementation of the program have varied by unit. Although it is unlikely the bounty program has a measurable effect on mule deer populations, further assessment of removals and fawn recruitment is necessary to understand if the program is beneficial to mule deer at any scale. Many factors that influence deer populations, such as weather, habitat conditions, mortality due to wildlife-vehicle collisions 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 some of the above mentioned details more closely, a study was initiated in 2017. Results from this study will become available in the future.