Utah Division of
WILDLIFE RESOURCES

Utah's Predator Control Program Summary

Program activities and data from July 1, 2013 through June 30, 2014

Utah's *Mule Deer Protection Act* went into effect in July of 2012. The primary goal of the program is to remove coyotes from areas where they may prey on mule deer. The Legislation set aside $500,000 from the Utah General Fund to pay individuals to kill coyotes in Utah. To process the payments and track harvest and participation the Utah Division of Wildlife Resources (Division) created the General Predator Control Program. The Division absorbed the extra costs to administer the program including software development leaving the entire $500,000 available for payments. The Division established locations throughout the state where people could check-in coyotes for payment. Each participant must submit the scalp of the animal with both ears attached, the lower jaw, and a datasheet that documents where the coyote was killed.

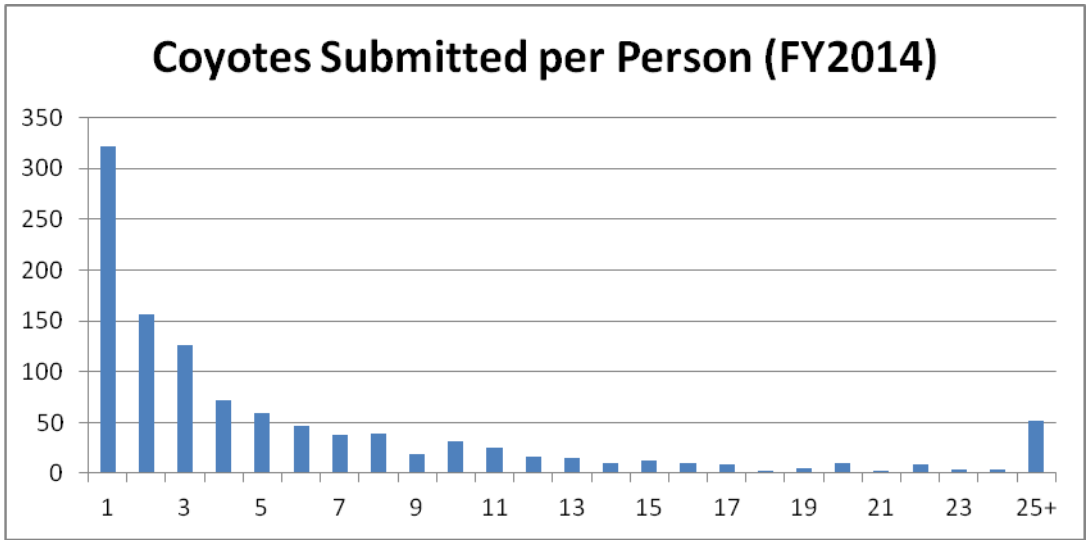
The Mule Deer Protection Act also provided for the creation of a Targeted Predator Control Program which allows the Division the ability to establish contracts with individuals to remove coyotes from specified areas. The Division targeted deer herds of concern and those where the population management objective is <90% and the fawn:doe ratios are lower than expected.

This report summarizes details from the implementation of the Act in Fiscal Year 2014.

Participation, Payments and Coyotes Submitted for Payment

This is the second year of the General Predator Control Program and a total of 7,041 coyotes were turned in for $352,050 in compensation compared with 7,160 coyotes in FY2013. In addition to the general control program the Division established 14 contracts with different individuals for targeted coyote removal. The contractors were paid $140,000 and they turned in a total of 236 coyotes.

In FY2014 a total of 1,096 individuals submitted coyotes through the General Predator Control Program. Public participation increased by 4% from the previous year with 67% percent of the participants submitting 5 animals or less.



Impact of the Program: Estimates from Survey Data

The Division's yearly furbearer survey provided ancillary information about coyote harvest in the state. Up until implementation of the Mule Deer Protection Act and the General Predator Control Program the annual reported harvest of coyotes by hunters licensed to harvest furbearers averaged 7,397. The reported harvest of coyotes by licensed furbearers dropped to 5,472 during 2013-2014. Of the 5,472 coyotes that were reported to be harvested by licensed fur harvesters 46% were not turned in for redemption of the payment. This means that in addition to the 7,041 an additional 2,682 coyotes were harvested that were not submitted for a payment through this program in FY2014. Total reported coyote harvest by the general public including this program between July 1, 2013 to June 30, 2014 is 9,723. Nearly half of the individuals that purchased a furbearer permit in FY2014 indicated that they did so because of the predator control program.

The Division has a cooperative interagency agreement with Wildlife Services (US Department of Agriculture) to remove predators, including coyotes. USDA/WS personnel reported removing approximately 2,605 coyotes from June 2013 to June 2014.

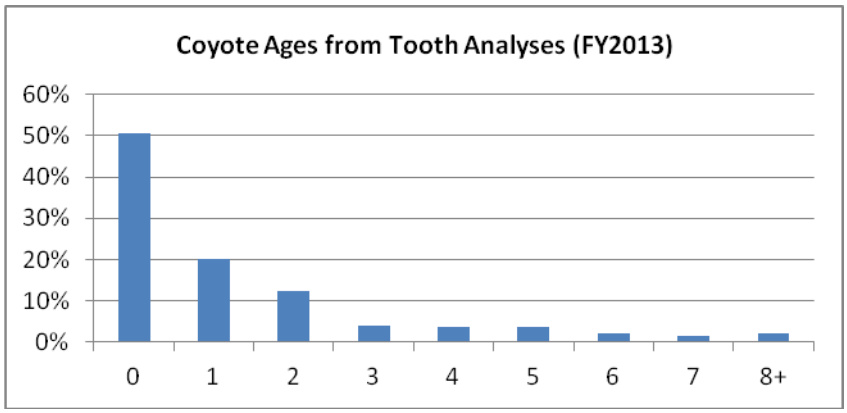
Total estimated harvest of coyotes for FY2014 through the General Predator Control Program (7,041), the Targeted Control Program (236), general fur harvest (2,682), and by Wildlife Services (2,605) is 12,564 coyotes. Prior to the implementation of the Mule Deer Protection Act reported harvest of coyotes by licensed furbearer permits holder averaged 7,397 per year.

Biological Data

Samples and locations of all coyotes could not be collected due to errors in locations, incomplete data forms, or when conditions prevented gathering the additional data. For example, some coyotes were submitted with injuries which precluded sampling such as broken teeth and damaged hides. Also, when long lines or software problems at coyote check-in locations were encountered, biological data was not collected in order to provide quicker customer service to program participants.

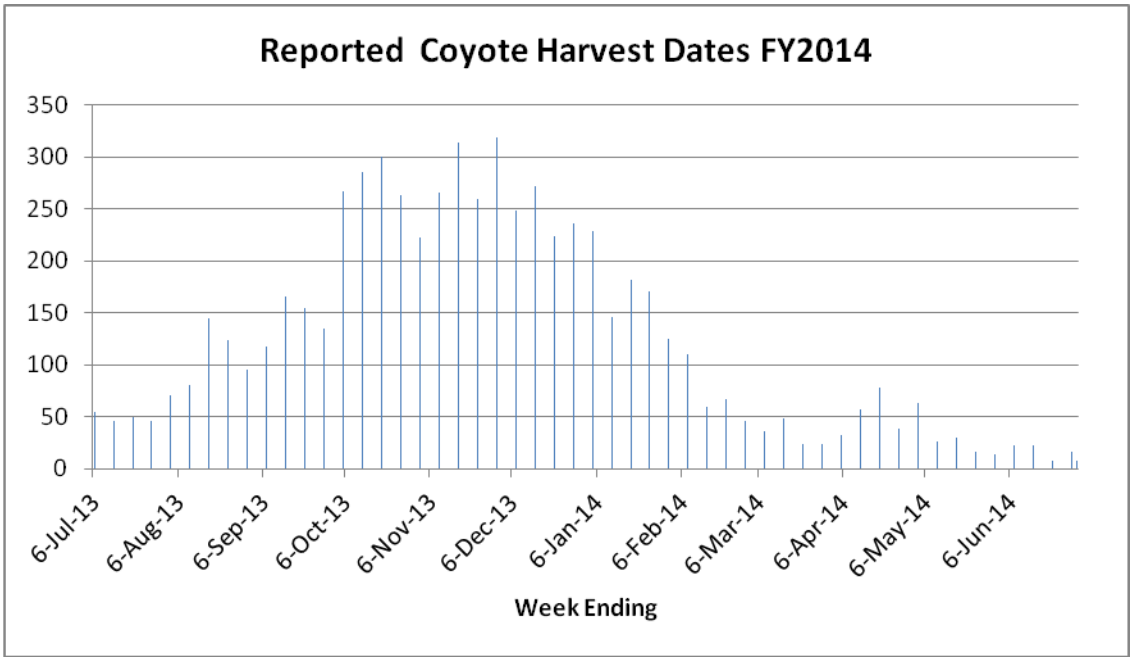
Biological data collected for coyotes harvested in FY2014 indicates that of 6,791 coyotes submitted 3,091 (46%) were female, 3,542 (52%) were male and 158 (2%) the sex was unknown. For 6,275 coyotes for which hunting method information was available, most (4,576; 67%) were taken by shooting, 1,413 (23%) were trapped and 286 (5%) were harvested by other means such as dogs, road kill, etc.

Age data by tooth analysis for coyotes harvested in FY2014 is not available yet but data from 847 coyotes harvested in FY2013 indicate that 83% were two years old or younger of which about half of these were less than one year old.



Temporal Distribution of Coyote Harvest

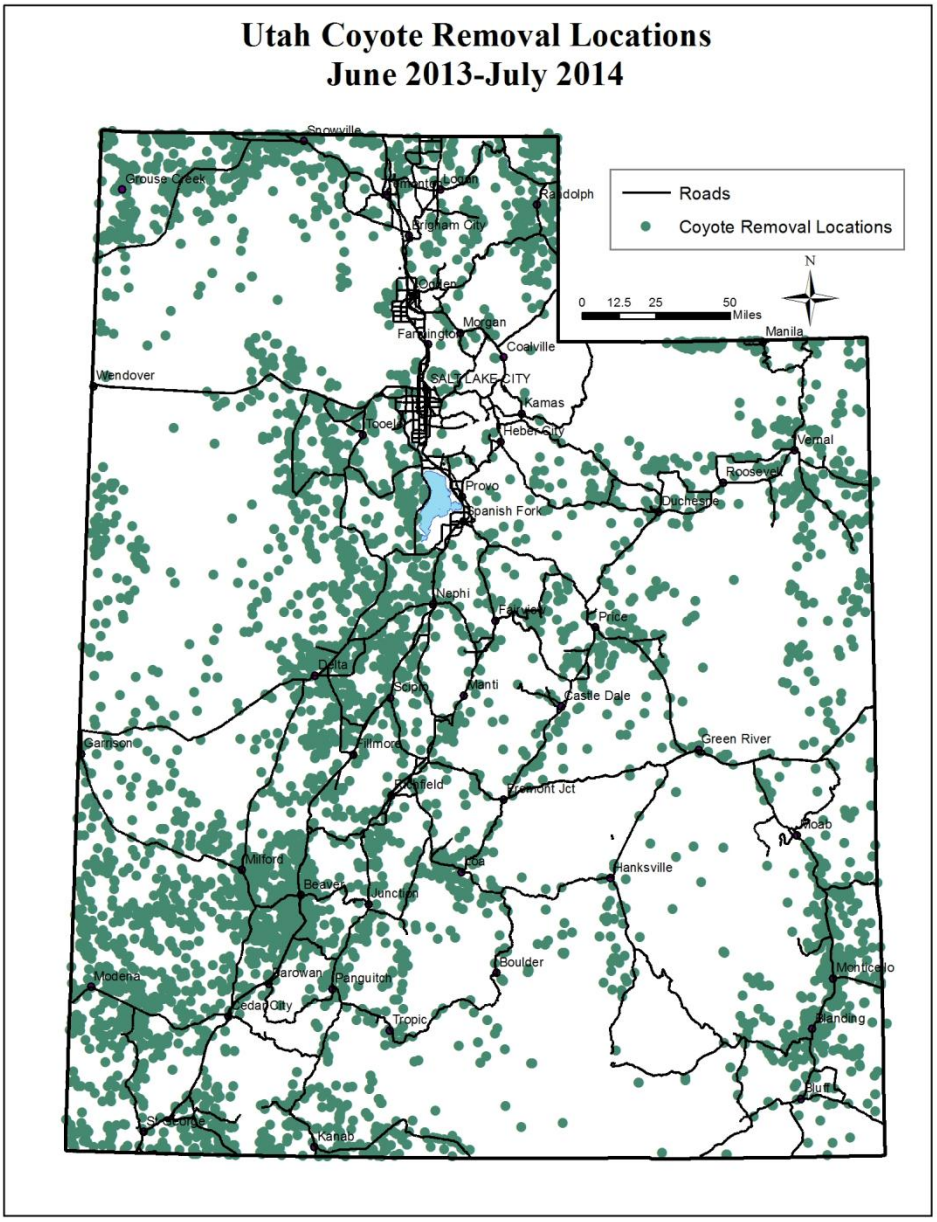
Peak months for coyote harvest in FY2014 occurred primarily between the first part of October 2013 with a gradual decrease in harvest around the end of January 2014.



Spatial Distribution of Coyote Take

The total number of coyotes submitted with usable spatial data was 6664. To assess potential impact on deer populations, coyote removal locations were plotted onto the state's deer management units. Coyote removal success varied across the state. Six deer WMUs (Box Elder, West Desert, SW Desert, Fillmore, Beaver and Pine Valley) accounted for approximately 50% of all coyotes removed (n=3,300).

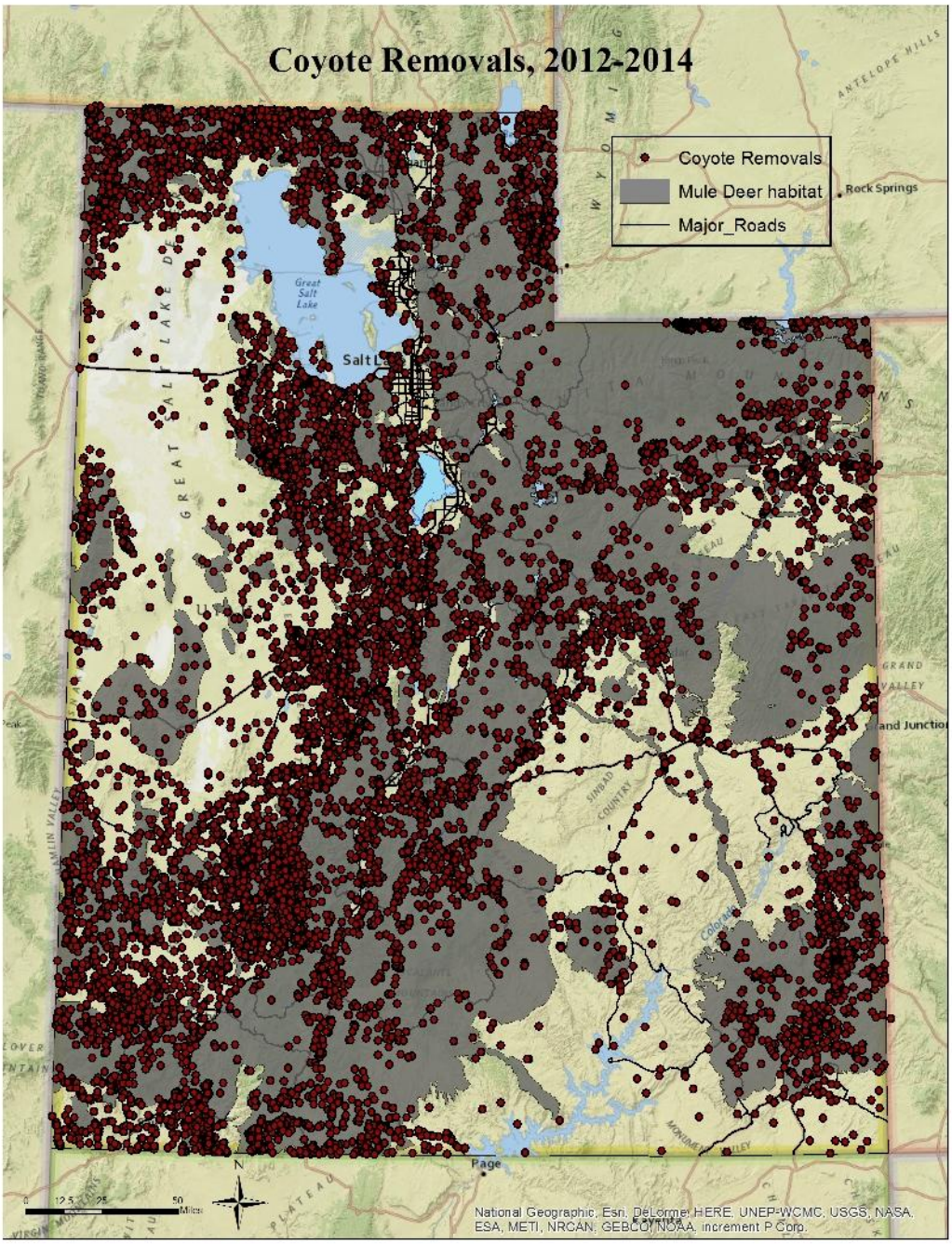
Hunt Unit/Tribal	Coyotes	Percent
Box Elder	698	10.5%
West Desert	566	8.5%
Southwest Desert	524	7.9%
Fillmore	519	7.8%
Beaver	517	7.8%
Pine Valley	476	7.1%
San Juan	421	6.3%
South Slope	332	5.0%
Cache	307	4.6%
Central Mountains	307	4.6%
Zion	246	3.7%
Oquirrh-Stansbury	235	3.5%
Plateau	200	3.0%
Paunsaugunt	169	2.5%
North Slope	145	2.2%
La Sal	123	1.8%
Wasatch Mountains	110	1.7%
San Rafael	105	1.6%
Nine Mile	89	1.3%
Monroe	79	1.2%
Mt. Dutton	77	1.2%
Morgan South Rich	75	1.1%
Book Cliffs	72	1.1%
Panguitch Lake	69	1.0%
Henry Mountains	52	0.8%
Kaiparowits	48	0.7%
Ogden	46	0.7%
East Canyon	28	0.4%
Navajo Reservation	23	0.3%
Chalk Creek	3	0.0%
Kamas	3	0.0%



Conclusion

The Predator Incentive Program was efficiently and effectively implemented at a state-wide scale during fiscal year 2014. The Program likely increased the numbers of coyotes killed in Utah and provided government-supplied economic rewards to individuals and businesses throughout the state. Based on two years of data collected we estimate that 25,054 coyotes were killed. This is an average of 12,527 coyotes per year. This is a 59% increase in the previous estimated annual harvest of 7,397 coyotes per year. It may take several years of implementation of this program before improvements in fawn:doe ratios statewide may become observed and this effect may be more visible on a unit:unit basis. Prior to implementation of the Mule Deer Protection Act the statewide (2012) fawn:doe ratio

was 60.9. There was an increase in FY2013 to 65.4 however, there was a slight decrease in 2014 which may be due to a change in methodology between the years. There are many factors in addition to predator control that can influence these numbers including things like weather and habitat conditions. The map below shows coyote harvest through this program for the past two years in relation to mule deer range in Utah.



[1] The coyote program does not have mandatory reporting requirements. It is legal to harvest coyotes and store them for indeterminate periods, meaning that coyotes harvested in one fiscal year may be submitted for payment in a different fiscal year. For the purposes of this report, analyses include all coyotes submitted for payment in FY 2014, regardless of their actual kill date.

[2] Additional coyotes were killed as pups underground but could not be counted because carcasses were not recovered.