

## **PROJECT 18 SUMMARY FROM 2015 PREDATOR PLAN**

### *CANCELED PROJECTS*

Project 18: Protection of Mule Deer - Unit 014

Project 18 at a Glance

GOAL: Enhance existing mule deer population in northern Washoe County.

PROJECT AREA: Treatment Area (Predator removal) - Granite Range (Unit 014); Control Areas (No or limited predator removal) – Surrounding Mountain Ranges (Units 011, 012, 013, 015 and 033).

### IMPLICATIONS FOR MANAGEMENT OF WILDLIFE POPULATIONS and HABITATS:

- 1) The removal of predators was intended to result in enhancement of the 014 mule deer herd.
- 2) Final data collection and analysis would determine overall effectiveness of this project and direct wildlife management policy in the future in Unit 014 and across the State.

PRELIMINARY CONCLUSION: Although a positive population response can be documented when comparing published population estimates, comparison of population response in other areas of the state and specific population and harvest data for Unit 014 do not appear to be significantly different than adjacent areas or past deer population trends in Unit 014 itself. This analysis brings into question the cost effectiveness of this project with significant expenditures of sportsmen's dollars for limited benefits.

PROJECT DURATION: 2004-2014.

TARGET SPECIES: Carnivora - Coyote, Cougar.

TIME PERIOD: Year round.

TOTAL KILL 2004-2013: 1,251 predators (52 lions, 1,199 coyotes).

FY13 TOTAL KILL: 47 predators (6 lions, 41 coyotes).

TOTAL EXPENDITURES TO DATE: \$644,459 + \$162,851 (Other) = \$807,310

FY14 APPROVED BUDGET: \$ 85,000

FY15 PROPOSED BUDGET: \$ 0

RECOMMENDATION: Terminate Project 18 as of 30 June 2014.

## **Introduction**

From early 2004 to 2013, in an effort to protect and enhance a mule deer population in northern Washoe County, NDOW killed over 1200 predators in the Granite Mountain Range, Unit 014. NDOW funded Wildlife Services to remove as many predators as was possible given the constraints of weather, time and available funding. Surrounding mountain ranges received limited predator control during the same study period and included those portions of northern Washoe, Humboldt and Pershing Counties in Units 011, 012, 013, 015 and 033.

Limited predator kill in control areas was associated either with agriculture, legal hunting and/or poaching. 41

In 2010, an extensive analysis was conducted in cooperation with UNR attempting to identify benefits or differences in performance of Unit 014 treatment area mule deer and California bighorn populations in comparison to adjacent northern Washoe-Humboldt-Pershing County control units in relation to different levels of predator removal. Those data continue to be analyzed.

## **Results and Discussion**

There was no statistical difference in recruitment as measured by spring deer surveys between areas with or without predator control. Other metrics used over the years to assess effects of predator control on the Unit 014 mule deer herd included hunter success, total harvest, and greater than or equal to 4 antler points in the harvest. All were independently regressed against both cougar and coyote kill and none of these metrics resulted in statistically significant correlations. Published deer population estimates were the only metric that showed some potential positive correlation with predator control but unfortunately did so in spite of fawn recruitment which was not significantly different from adjacent areas.

Although the 014 deer population did increase over the life of this project, similar patterns in deer population changes in the absence of predator control in other units suggests mule deer production and recruitment were also driven by landscape scale phenomena such as climate, ecological carrying capacity and nutritional availability and have little or no correlation to numbers of Apex predators removed in a given area (Ballard et al 2001; NDOW 2004b; Hurley et al 2011).

A final analysis at the end of FY14 will represent a decade of predator control and will include a cost-benefit analysis.

## **Conclusion**

This project was designed to protect a mule deer population from predation in hopes of enhancing the deer population to improve hunter opportunity in the Granite Mountain Range of northern Washoe County. Analysis of the associated data indicates population dynamics and harvest data did not show positive correlations that would support this hypothesis. When evaluated in the context of the larger northern Washoe mule deer population, deer in the 014 Project Area do not require extra or targeted predator removal in order to maintain robust population viability over the long term. Even if all of the 014 deer population increase could be attributed to predator control, the cost/benefit ratio does not support continued expenditure of sportsmen's dollars at this time in this project area.

## **Recommendation**

Terminate Project 18 as of 30 June 2014.