



OREGON DEPARTMENT OF FISH AND WILDLIFE
INFORMATION RELATIVE TO PREDATOR PLAN

From the Desk of

Senator Bentz

The Oregon Department of Fish and Wildlife (ODFW) was directed under HB 2182 to study the development of a predator management plan. The following provides information on predator management programs in other western states, how they are funded, the intent of the program, and where available whether the effort was considered successful. Also included is information on existing authorities and management plans that are being implemented in Oregon that address predation on both fish and wildlife.

Western State Predator Management Programs

Nevada

The Nevada Department of Wildlife Predator Management Plan was developed through legislative direction and is funded from a \$3 surcharge on big game hunting licenses. The Plan includes programs for management and control of predators, management and protection of big game and game birds, sensitive wildlife species and habitats, and research related to predator management. No less than 80% of the annual funds must be spent on lethal control. The surcharge generates around \$550,000 annually.

The current plan proposes projects to lethally remove ravens, cougars, coyotes, and other carnivores (raccoon and striped skunk) to benefit greater sage-grouse, waterfowl, upland game birds, mule deer, pronghorn, and bighorn sheep. Nevada Department of Wildlife collaborates with USDA Wildlife Services and private contractors to conduct lethal and non-lethal management of predators. Most projects consists of small focal areas to concentrate efforts, however a few projects occur at large scales or allow for numerous focal areas.

Utah

In 2012 the Utah Legislature passed SB 87 which levied a \$5 surcharge on big game hunting licenses with all revenues designated for predator control programs. In the same session the Mule Deer Protection Act (SB 245), dedicated \$750,000 from the state general fund to develop and implement programs to reduce and control coyote populations. The result is a Predator Control Program that pays participants \$50 for each documented coyote kill. The program is designed to benefit mule deer and the control areas are identified by the Utah Division of Wildlife.

A primary goal of the effort is to increase mule deer fawn ratios. Since the Act has been implemented, mule deer fawn: doe ratios have fluctuated slightly and indicate a stable deer population; no improvements to fawn: doe ratios have otherwise been noted.

Idaho

Idaho Fish and Game has identified specific areas where elk populations are below management objective. In those cases where large carnivores appear to be inhibiting recruitment they have developed actions plans designed to reduce predator populations. The plans call for the use of recreational harvest as the primary method for lethal removal of black bear, cougars, and wolves. Idaho Fish and Game may authorize agency (USDA Wildlife Service) control actions on predators where hunter harvest is not sufficient in reducing predation impacts. No surcharge nor dedicated general funds are used as current operations (i.e. recreational harvest, agreements with Wildlife Services) are used to implement plans.

Arizona

Arizona does not have a formal plan, board, or funding mechanism, but the Arizona Game and Fish Department's Predator Management Policy establishes guidelines for implementing site-specific cougar and coyote management. These two predators are managed to minimize conflicts with humans, and reduce adverse impacts on other wildlife populations.

The Department develops site-specific management plans when either of those species are considered to be inhibiting the ability of the Department to attain management goals and objectives for other wildlife species. All plans fall within statewide management goals and include tools such as non-lethal techniques, habitat management, and lethal removals by hunters, department staff, and department-designated individuals.

Wyoming

Predator control is directed by an Animal Damage Management Board (AMDB) who consider control and management of predatory animals, predacious birds, and depredating animals that cause damage to livestock, crops, wildlife, property, human health and safety. This board is comprised of members of state and federal agencies, livestock producers, and other members of the public. The Board allocates legislative funding (\$6 million from General Fund a biennium) to county Predator Management Districts (via grants) to fund various projects. Unlike the other state programs, the state Department of Agriculture holds major oversight on these boards and projects, a likely product of the AMDB being created in 1999 to address agricultural issues.

Projects are varied but have included agriculture educational programs in schools, raven control efforts to protect greater sage grouse, striped skunk trapping and rabies sampling, and mule deer herd monitoring to maximize any future predator control efforts.

Summary

Many of the western states programs that have specific predator management programs have also received special funding for implementation (Table 3). The funding has either come through special assessments on hunting licenses/tags or through additional general fund allocations. All states have found that in order to have any measure of success, actions taken must be targeted to specific areas for prolonged periods of time. All have developed site specific action plans detailing outcomes and methods for determining success. Some states focus on using hunters/trappers to achieve objectives, some rely on USDA Wildlife Services and some use both. Results of the actions appear to be mixed. In some cases there appears to be a positive response in deer or elk populations, while in others the response has not been evident. Based on this it is unclear if the mixed response is a result of inadequate predator removal levels or if other factors are impacting survival and recruitment.

Oregon Predator Management

Wildlife Management is the responsibility of the Oregon Department of Fish and Wildlife (ODFW). However, the Oregon Legislature has defined some wildlife species such as coyotes (which prey heavily on livestock) as predatory animals. Species-specific management plans are reviewed and adopted by the Oregon Fish and Wildlife Commission (Commission) after extensive public processes. Predators in Oregon are broken into two categories; those specifically defined by statute in ORS 610 and those that are classified as wildlife under ORS 496.

Coyotes

The Oregon Legislature has defined coyotes as a predatory animal with regulatory authority falling under the Oregon Department of Agriculture, (ORS 610). Coyotes can be lethally removed by a

landowner, resident, or the landowner's agent without any license or permit on land they own or legally occupy. USDA Wildlife Services has an active predator management program in participating Oregon counties. Partial funding for USDA Wildlife Services is provided by the Oregon Legislature through Oregon Department of Agriculture and ODFW. Predator removals are focused on responding to or preventing livestock losses. In some cases Wildlife Services has also conducted coyote removal under the direction of ODFW on public and private lands in order to increase fawn recruitment for deer or antelope as part of maintaining herd health. Currently actions to remove coyotes are being taken as part of the Mule Deer Initiative in Eastern Oregon. While coyote trapping and hunting by furtakers occurs statewide, it usually is focused in eastern Oregon during winter months when coyotes are found around wintering concentrations of mule deer and antelope.

Other Predators

The other main predators of deer, elk, antelope and big horn sheep are bobcats, black bears, cougars and wolves.

Bobcats are classified as a furbearer and harvest is regulated through trapping seasons. The other three predators are classified as game mammals and all have specific Commission adopted management plans that detail the circumstances under which ODFW can undertake population control. These plans look to fully utilize recreational hunting as the primary tool for control efforts, but all contain provisions for specific actions that can be taken where hunting alone is unable to reverse declines in ungulate populations. Adopted ungulate management plans all contain recognition of the potential for impacts from predators. Likewise the cougar, bear, and wolf plans all recognize the potential for impacts on ungulates and allow for controls above and beyond hunting to regulate these species.

Bobcats

While there is no specific management plan for bobcats, hunters have a several month long season and can harvest cats through the use of traps, hunting or hounds. Bobcats are classified as a furbearer and have not been identified as a major contributing factor to declines in mule or blacktailed deer populations.

Black Bear

Currently with Commission approval ODFW has implemented a spring and fall bear season with multiple animal bag limits. While bear have been identified as a predator of elk calves in portions of NE Oregon, monitoring has not indicated a need to take additional actions above the current hunting season structures.

Cougar

The Commission adopted management plan contains hunting season frameworks and harvest quotas designed to regulate and maintain the cougar population in recognition of the potential impact on deer, elk and bighorn sheep. A year round cougar season is being implemented in Oregon with hunters allowed to take two cougar annually. Hunters seldom harvest enough cougars to reach the quota. In recognition of the need for additional management the Commission through the Cougar Management Plan has authorized ODFW to implement targeted removal in localized areas. In order to qualify as a target area certain science based criteria must be met that demonstrate cougar impacts on deer, elk or bighorn sheep.

Implementation of Target Areas to administratively remove cougars to address cougar-related conflicts and impacts on ungulate populations can occur if certain zone specific threshold values are met. Threshold values vary by cougar zone and include:

- Number of non-hunting cougar mortalities related to livestock and human safety/pet concerns
- Number of human safety and pet complaints
- Number of livestock complaints
- Elk calf-to-cow ratios and elk population management objectives
- Predation that threatens viability of deer populations
- Predation that threatens success or viability of transplanted populations of ungulates (e.g. bighorn sheep)

Since 2007, seven cougar Target Areas have been completed (Table 1) and four are currently underway (Table 2). Cougar management and control to benefit ungulate populations is also identified in the Oregon Bighorn Sheep and Rocky Mountain Goat Management Plan, Elk Management Plan, Black-tailed Deer Management Plan, and Mule Deer Management Plan. Implementation has varied in all 11 target areas with some action plans completed by USDA Wildlife Services and some completed by authorized ODFW agents.

Table 1. Past cougar Target Areas

Target Area	Purpose	Annual Objective	Number of Administrative Removals							Total
			2007	2008	2009	2010	2011	2012	2013	
Beulah	Reduce livestock depredation	12	12	10	2	10	-	-	-	24
Heppner	Improve ungulate recruitment	30	33	12	8	-	-	-	-	53
Jackson	Reduce human safety/pet concerns	24	7	12	5	-	-	-	-	24
Steens	Improve mule deer populations	20	-	-	-	20	18	15	7	60
Ukiah	Improve elk recruitment	35	-	-	5	30	30	14	15	94
Warner	Improve mule deer populations	14	-	-	1	8	4	12	3	28
Wenaha	Improve elk recruitment	20	-	-	-	11	19	15	11	56

Table 2. Current Target Areas (starting January 1, 2016) and results as of September 15, 2016.

Target Area	Purpose	Annual Objective	Administrative Removals
East Umpqua	Reduce livestock depredation	30	30
Interstate	Improve mule deer populations	50	13

Steens	Improve mule deer & BHS populations	10	1
Warner	Improve mule deer populations	5	3

Gray Wolf

The gray wolf is classified as a special status game mammal by Oregon statute with state decisions and actions guided by the Oregon Wolf Conservation and Management Plan. Wolves are also a listed species under the Federal Endangered Species Act in most of Oregon and ultimate management authority lies with the US Fish and Wildlife Service (USFWS). In the area of eastern Oregon where wolves are not federally listed, when predation is determined to be the primary cause of ungulate population or recruitment decline, the current Wolf Plan allows for management actions. Specifically, if wolves are determined to be the cause of decline, then translocations, relocations or controlled take are to be used to achieve ungulate goals. Similar management may also be used to address issues where wolves are affecting the success of ungulate transplants or ungulate use of winter ranges or feeding sites. Wolf management and control to benefit ungulate populations is also identified in the Oregon Bighorn Sheep and Rocky Mountain Goat Management Plan, Elk Management Plan, Black-tailed Deer Management Plan, and Mule Deer Management Plan.

Common Raven

Common ravens are federally protected under the Migratory Bird Treaty Act and management authority resides with the USFWS. Ravens can be a significant predator on eggs of greater sage-grouse. As identified in the Oregon Sage-Grouse Action Plan, lethal control of predators may be a useful as a short-term management tool to increase nest success and survival when localized sage-grouse populations are declining and have reached a critically low population threshold. In degraded habitats, sustained predator control and removal of predator subsidies may increase nest success and chick survival to prevent further population declines while allowing time for habitat improvement. Raven surveys are conducted in sage-grouse areas of Oregon and removal efforts may occur in areas with declining greater sage-grouse numbers. Actions are underway to request approval of an experimental removal permit in Baker County to address concerns over declining sage grouse populations.

Double-crested Cormorant

Double-crested cormorants are federally protected under the Migratory Bird Treaty Act, though the state is authorized to conduct cormorant management that does not involve "take". ODFW currently oversees non-lethal harassment of cormorants to benefit hatchery and wild salmonid smolts and has also been actively pursuing additional USFWS depredation permits that will allow for lethal take. Currently the ODFW holds a permit for one coastal estuary and is working towards securing approval for conducting take in two additional estuaries.

Besides non-lethal harassment, ODFW has been involved in the development and implementation of the lethal cormorant management plan currently underway on the largest cormorant colony in western North America, located on East Sand Island in the Columbia River estuary. Implementation of the plan is expected to result in population declines of 50% in the Columbia River estuary and 30% for the entire western population.

Pinnipeds

All marine mammals are federally protected under the Marine Mammal Protection Act (MMPA). The National Marine Fisheries Service (NMFS) is the lead federal agency with management oversight. The MMPA provides a number of exemptions to the moratorium through various permitting procedures.

ODFW has been working in the permitting processes of the MMPA for over a decade. This has resulted in issuance of non-lethal harassment permits and more recently lethal take permits. Actions are occurring in both the Columbia and Willamette rivers within the parameters of those federal permits.

Table 3. Details of predator programs in Western States.

State	Program/s	Expense/Surcharge	Prey Species	Predator Species	Activities
Idaho	Predator Plan	None	Elk	Black bear, cougar, and wolf	Lethal Control through recreational hunting and trapping
Nevada	Predator Plan	\$3 surcharge on big game hunting licenses (yields \$550,000 annually)	Waterfowl, upland game birds, mule deer, pronghorn, and bighorn sheep	Cougar, coyote, raven, fox, raccoon, skunk	Lethal and Non-Lethal Control, Research, Education, and Outreach
Utah	Predator Plan	\$5 surcharge on big game hunting licenses and \$750,000/fiscal year from General Fund (\$500k to DFW, \$250k to Department of Ag)	Mule deer	Coyote	Lethal Control through hunting bounties and agents
Arizona	Predator Policy	None	Sensitive or declining wildlife species	Cougar and coyote	Lethal and Non-Lethal Control through hunting, staff, and agents
Wyoming	Animal Damage Board	\$6 million per biennium from General Fund	Livestock, bees, and sensitive or declining wildlife species	Cougar, coyote, black bear, grizzly bear, wolf, raven, and skunk	Lethal and Non-Lethal Control, Research, Education, and Outreach
Oregon	Bighorn Sheep and Mountain Goat Plan, Black Bear Plan, Black-tailed Deer Plan, Cougar Plan, Wolf Plan, Elk Plan, and Mule Deer Plan	15-17 Biennium ODFW to USDA WS: \$453,365 for Predator Animal Damage Control \$108,000 for Black Bear, Cougar, Furbearer, and Wolf Damage Control	Deer, elk, bighorn sheep, and fish	Cougar, coyote, bobcat, black bear, wolf, pinniped, cormorant, and common raven	Lethal and Non-Lethal Control, Research, Education, and Outreach

Statutes

ORS 496.004 defines **Game Mammals** as antelope, black bear, cougar, deer, elk, moose, mountain goat, mountain sheep, silver gray squirrel, and gray wolf and **Fur-bearing Mammals**- beaver, bobcat, fisher, marten, mink, muskrat, otter, raccoon, red fox, and gray fox.

ORS 498.012 addresses the taking of wildlife that is causing damage, posing public health risk, or that is a public nuisance. Nothing in the wildlife laws is intended to prevent any person from taking any wildlife that meets any of those criteria, except when specifically prohibited by the ODFW Commission and/or a permit is at first required.

ORS 498.014 addresses the particular situations in which an agency or person who owns or lawfully occupies land may take wolves. The statute points to the Oregon Wolf Conservation and Management Plan for specific details.

ORS 498.166 allows a person to take a cougar or bear that poses a threat to human safety, however the carcass is to be turned over to ODFW for disposal and ODFW is required to file a full report on the incident within 30 days.

ORS 610.002 defines **Predatory Animals** as feral swine, coyotes, rabbits, rodents, and birds that are or may be destructive to agricultural crops, products, and activities, but excluding game birds and other birds determined by the State Fish and Wildlife Commission to be in need of protection.

ORS 610.005 states that the laws for the destruction, eradication, or control of predatory animals by the state shall be administered by the State Department of Agriculture. Any sums appropriated by the legislature for such purposes shall be expended in cooperation with the United States Department of Agriculture. No part of any such appropriation shall be paid for bounties.

ORS 610.020 directs ODFW to set aside at least \$120,000 per biennium to be expended on predator control and shall be expended by ODFW in cooperation with ODA and USDA.