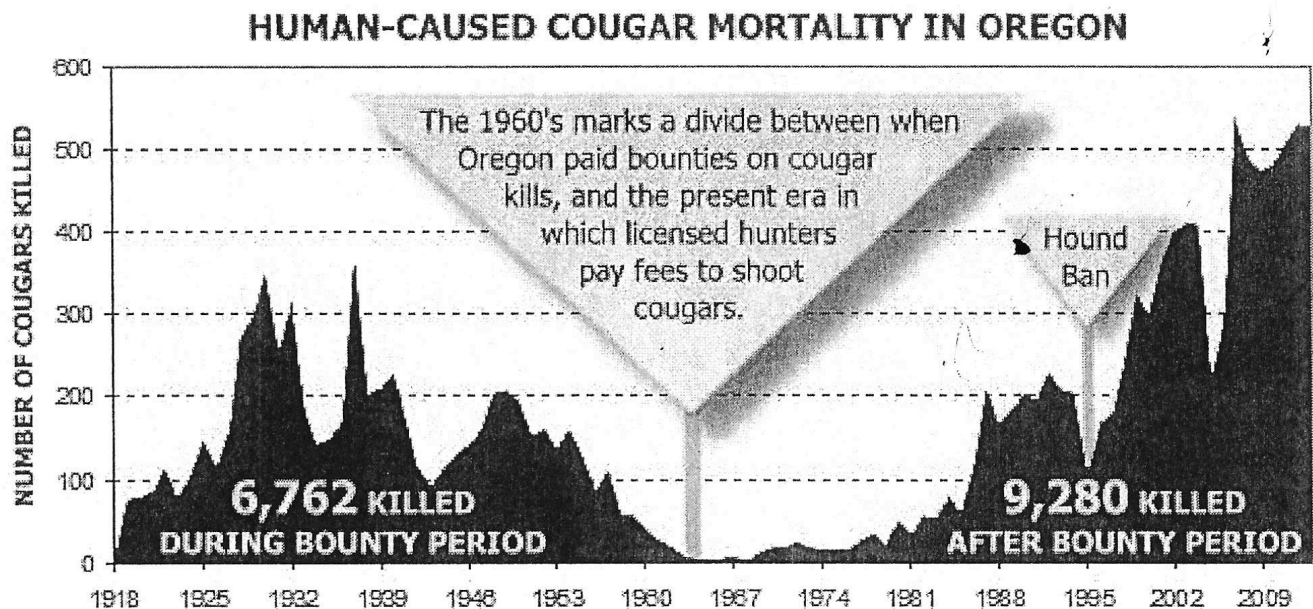


# HISTORY OF COUGAR MANAGEMENT IN OREGON

In 1843 a bounty program was initiated against cougars in the Oregon Territory. In 1961, this program was discontinued by the State of Oregon for a lack of cougars with only 28 cougar carcasses turned in that year. 6,762 cougars were killed and turned in for a bounty between 1918 (first year records are available) and the end of the program in 1961. At the time it was estimated that Oregon's cougar population had dropped to only 200 animals and were in danger of extirpation.

In 1967 cougars were reclassified as game animals in an effort (according to ODFW) to protect the species from unregulated hunting. During the following 26 years of "regulated" cougar hunting in Oregon the annual hunting mortality numbers steadily increased from 6 in 1967 to a high of 187 in 1992.



In 1994 voters approved Measure 18 which banned the use of hounds to hunt cougars. Since hound-hunting is the most efficient method to hunt cougars, many proponents of Measure 18 saw it as a way to effectively reduce the number of cougars killed annually by sport hunters. Immediately following Measure 18's passage, sport hunting related cougar mortalities declined dramatically statewide (22 in 1995).

To offset these sport hunting mortality declines, ODFW lengthened the hunting season to year-round in some regions, significantly reduced the cost of a cougar hunting tag for Oregon residents, increased annual hunting quotas, increased the bag limit, and issued an unlimited number of hunting tags — more than 43,000 cougar hunting tags were sold in 2009.

**As a result, sport-hunting related cougar mortalities have increased to record highs despite the ban on using hounds.**

**Table 2.** Statewide estimates of cougar habitat, cougar density, cougar population size, and extrapolation method used to derive population size. Estimates current in February 2009. Oregon estimates from Oregon Cougar Management Plan (2006).

	Cougar habitat (km <sup>2</sup> )	Density (cougars/100 km <sup>2</sup> )	Population estimate	Extrapolation method
Ariz.	291,374	0.7 cougars	1,500–2,000 cougars	Amount of habitat and density range.
Calif.	250,000	3–9 cougars	4,000–6,000 cougars	Densities and vegetation types.
Colo.	141,879	2–2.5 cougars	3,000–3,500 independents	Habitat quality and an associated density.
Ida.	N/A	N/A	1,500–2,500	Back-calculations from harvest, life tables, and known cougar productivity.
Mont.	118,137	1.3–3.2 adults and subadults	1,583–3,744 adults and subadults	Amount of habitat and density range.
N.Dak.	4,637	N/A	45–74 potential cougars	Habitat quality and density estimates from other populations.
N.M.	289,507	0.2–3.0 adults <sup>1</sup>	2,041–3,043 cougars	Habitat quality and density estimates from past research.
Nev.	146,311	0.82–1.23 average adults	2,400 cougars	Life table model using harvest, recruitment, prey availability.
Oreg.	N/A	1.7–6.2 yearlings and adults <sup>2</sup>	1,284–7,644 cougars	Prey density.
S.Dak.	4,856	5.2 cougars	220–280 cougars in Black Hills	Research, mark/recapture, and modeling.
Tex.	198,654	0.3–0.7 adults <sup>3</sup>	500–1,300 cougars	Amount of habitat and high-low density estimates.
Ut.	111,249	3.1–3.3 cougars	N/A	
Wash.	88,497	3.3–3.5 total cougars	1,900–2,100 subadults and adults	Density estimates from past studies.
Wyo.	N/A	Variable	N/A	

<sup>1</sup> Habitat and associated densities defined as: core (2.0–3.0 cougars/100 km<sup>2</sup>), patch-dispersal (0.89–1.2 cougars/100 km<sup>2</sup>), and poor/marginal (0.2–0.3 adults/100 km<sup>2</sup>).

<sup>2</sup> Density estimates from preliminary studies in various regions from 1995–2005.

<sup>3</sup> Density estimates from 2 ecoregions and are 10 years old.

tive methods to deal with nuisance cougars include relocation, aversive conditioning, public education and outreach, and fines for attracting wildlife (Beausoleil et al. 2008).

### Balance Cougar Populations with Ungulate Populations

The effect that cougars have on big game populations is a common concern



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Effects of sport hunting on cougar population, community, and landscape ecology

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**Abstract:**

Cougars (*puma concolor*) are managed on the traditional density dependent, compensatory mortality, game management model. In population ecology, hunting is believed to result in reduced numbers of cougars, increased female reproductive success, population growth, and sustained yield. In community ecology, hunting is believed to result in reduced predation on game animals. In landscape ecology, hunting is believed to result in decreased conflicts with humans. We conducted 6 separate field experiments from 1998 to 2011 (13 years) in WA to test these hypotheses. High hunting mortality of males resulted in compensatory immigration by males, decreased kitten survival and increased infanticide, and female population decline - with no net change in total cougars. Low hunting mortality of males resulted in compensatory emigration by males, high kitten survival and female population increase - with no net change in total cougars. Intrinsic growth rates (excluding hunting mortalities) were +14% throughout WA. High hunting of males and increased male turnover corresponded with sexual segregation. Females with kittens avoided males and switched from numerous white-tailed deer at low elevations to sparse mule deer at high elevations in heavily hunted areas. Only very high harvest of females reversed high predation on mule deer. High hunting mortality resulted in a doubling of home range size and overlap for immigrant males - increasing the probability for cougar/human interactions. Younger immigrants used human-occupied areas more than older residents. Increased hunting of cougars did not reduce cougar complaints and livestock depredations. Our results suggest that the traditional game management model does not apply to cougars. We recommended a harvest strategy of <14%/year (based on intrinsic growth rates of cougars) to allow cougar population equilibrium (no net immigration or emigration) throughout WA. The Washington Department of Fish and Wildlife adopted this new equilibrium management plan for cougars statewide in 2012.

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