

**State of California  
NATURAL RESOURCES AGENCY  
Department of Fish and Wildlife**

**Report to the Fish and Game Commission  
Regarding Findings of Necropsies on Mountain Lions  
Taken Under Depredation Permits in 2020**

**Prepared by the Wildlife Investigations Laboratory  
Wildlife Branch, Wildlife and Fisheries Division**

**March 23, 2021**

**Submitted in compliance with Section 4807 of the Fish and Game Code**

## **Summary**

Based on the California Department of Fish and Wildlife (CDFW) records received from the Wildlife Incident Reporting System and various staff at the time of this report, CDFW issued 246 mountain lion depredation permits in calendar year 2020 and 45 mountain lions were reported as being lethally taken.

The CDFW amended its mountain lion depredation, public safety, and animal welfare policy in December 2017 and February 2020. The purpose of the amendment is to avoid, where possible, mountain lion mortalities resulting from the issuance of depredation permits within specific geographically and genetically isolated mountain lion populations in Southern California as defined by Ernest et al. 2014<sup>1</sup>. A three-tier stepwise process allows the CDFW to first issue non-lethal mountain lion depredation permits that include hazing by the permit holder or authorized agent prior to the issuance of a lethal depredation permit within the implementation areas. In 2020, 74 of the 246 (30%) depredation permits were for non-lethal take.

CDFW staff issued the greatest numbers of permits in February, March, and April 2020 (Figure 1). The reasons for property owners obtaining mountain lion depredation permits varied. However, goats alone accounted for the highest number of the total reported incidents (45%) followed by sheep (32%) (Figure 2).

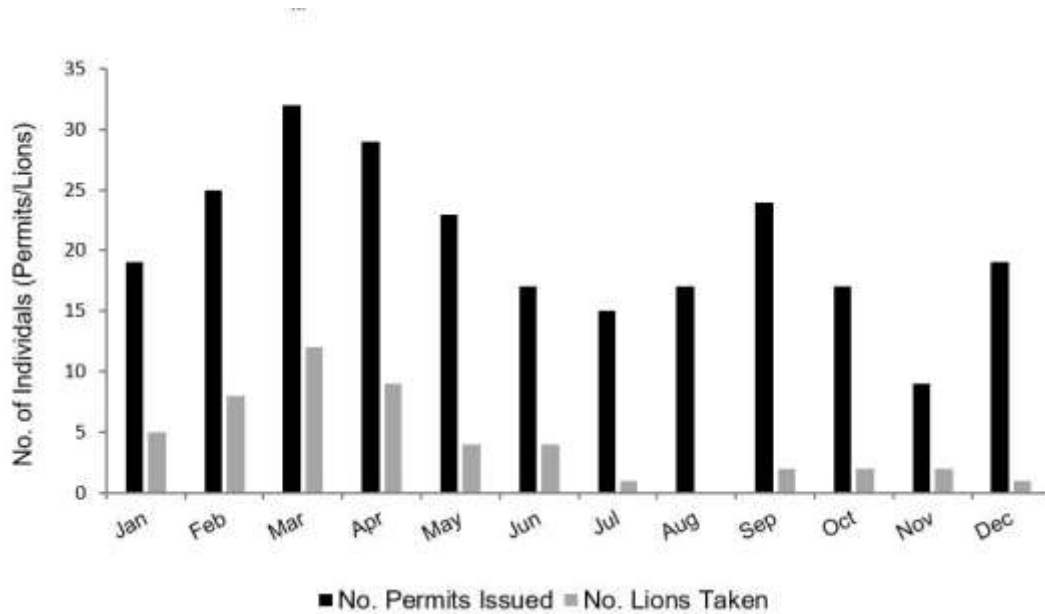
Although 45 mountain lions were reported as being taken in 2020, CDFW staff necropsied 50 depredation carcasses. Seventy percent of mountain lions necropsied to date were male and 28% were female; the sex of one lion was not specified (Table 1). Seventy percent of mountain lions necropsied to date were aged as adults (24 months or older); 22% were sub-adults (13-24 months of age); 8% were juveniles (12 months or younger, Table 2). The highest number of depredation mountain lion carcasses came from CDFW's Northern Region (38%; Table 3).

Necropsied mountain lion stomach contents that could be identified most frequently contained hoofstock such as goat (14%); however, other contents were observed (Figure 3).

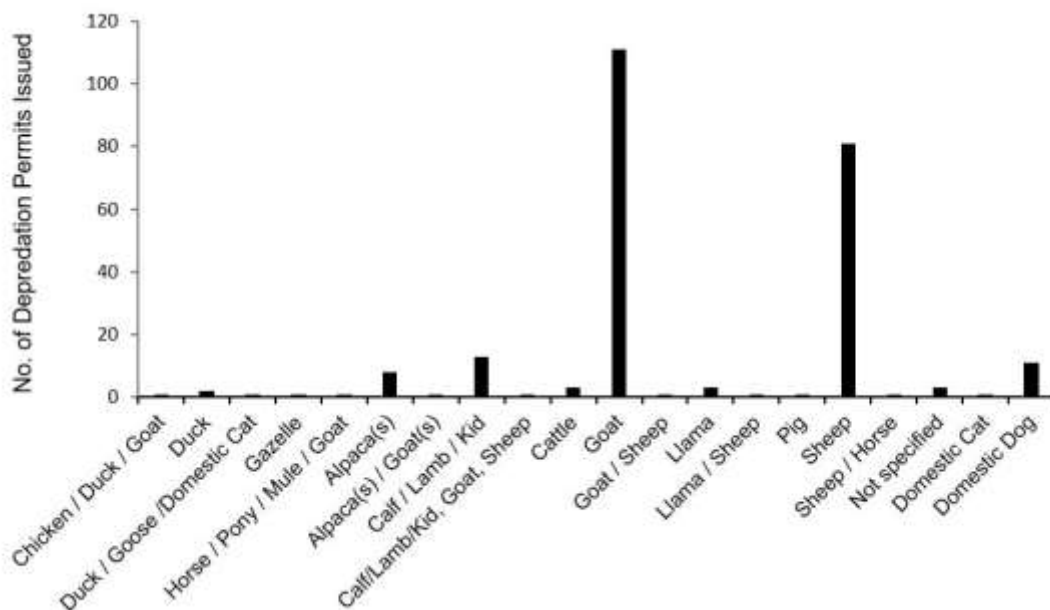
Note: There are various factors that may contribute to a greater number of depredation necropsies recorded than the number of mountain lions reported as taken on depredation by the CDFW Wildlife Incident Reporting system (WIR). One such factor is that reporting parties and CDFW staff have reported intermittently being unable to close WIR depredation incidents and report take. Additionally, reporting parties in remote areas have reported problems with internet access and being able to use the online WIR System. CDFW continues to make efforts to contact permittees, input reported data, and update the WIR system.

<sup>1</sup> Ernest, Holly B., T.W. Vickers, S.A. Morrison, M.R. Buchalski, W.M. Boyce. 2014. Fractured Genetic Connectivity Threatens a Southern California Puma (*Puma concolor*) Population. *PLoS ONE* 9(10): e107985. doi:10.1371/journal.pone.0107985.

**Figure 1. Monthly summary of lethal and non-lethal mountain lion depredation reports for 2020. The number of depredation permits issued each month and the number of mountain lions taken are shown.**



**Figure 2. Number of lethal and non-lethal depredation permits issued in 2020 and the type of property damage reported (i.e. animal(s) reported to have been taken by a mountain lion). These numbers are based upon the number of incidents and not the total number of animals claimed to have been taken in a single incident.**



**Table 1. Sex of depredating mountain lions necropsied by CDFW in 2020.**

<b>Sex</b>	<b>Total by Sex</b>
Male	35
Female	14
Not indicated	1

**Table 2. Ages of depredating mountain lions necropsied by CDFW in 2019.**

<b>Age Class</b>	<b>Total by Age Class</b>
Juvenile <sup>1</sup>	4
Sub Adult <sup>2</sup>	11
Adult <sup>3</sup>	35

<sup>1</sup> Juvenile: 12 months or younger

<sup>2</sup> Sub Adult: 13-23 months

<sup>3</sup> Adult: 24 months or older

**Table 3. Geographic distribution of depredating mountain lions necropsied by CDFW in 2020.**

<b>CDFW Region</b>	<b>Total by Region</b>
Northern	19
North Central	15
Bay Delta	12
Central	2
South Coast	2

**Figure 3. Stomach contents of depredating mountain lions necropsied by CDFW in 2020.**

