



March 2, 2022

Public Notice of Intent to Issue a Permit for Mountain Lion Research in California

Legislation passed in 2012 requires the Department of Fish and Wildlife (CDFW) to notify the public at least 30 days prior to the issuance of a Scientific Collecting Permit (SCP) to qualified researchers desiring to conduct research on mountain lions.

The legislation is described in Section [4810 of the Fish and Game Code](#), and [Title 14, Section 650\(e\)\(3\)\(C\) of the California Code of Regulations](#).

A summary of the proposed research is below. Copies of the DRAFT permit are available upon request to CDFW. Please contact the California Department of Fish and Wildlife, Wildlife Branch- MOUNTAIN LION SCP at 1701 Nimbus Road, Rancho Cordova, CA 95670.

Prospective Scientific Collecting Permit Renewal Issued to:

Dr. Thomas W. Vickers, DVM, MPVM (Individual) – Principal Investigator

Wildlife Health Center at the University of California, Davis, in collaboration with Institute for Wildlife Studies

Executive Summary:

UC Davis Wildlife Health Center Mountain Lion (*Puma concolor*) Research Project

California mountain lions have recently been characterized genetically as being divided into ten subpopulations, predominantly by highways and development. Populations in our southern California study area are at risk of decline due to low annual survival secondary to interactions with humans (vehicles, depredation-related deaths, illegal killings), habitat loss, and genetic restriction and inbreeding secondary to habitat fragmentation. These risks dictate continued study into all of the aforementioned factors that are affecting those subpopulations. In our northeastern California study area, potential impacts of mountain lion on pronghorn antelope, a lack of knowledge about basic population characteristics such as dispersal patterns, genetics, home range sizes, diet and maternal behavior all are being studied in order to have baseline knowledge about mountain lions in this region prior to likely colonization by wolves in the future. We apply for this Scientific Collecting Permit (SCP) application as equivalent to a renewal of our existing permit in order that we may continue our long-term (20 year) mountain lion research project. Long term studies of

mountain lions are rare, and this study is one of the longest running in the nation, and had resulted in or contributed to more than 50 peer reviewed publications and technical reports. Our findings and analyses have contributed significantly to the body of knowledge for mountain lion conservation in California, but more remains to be done.

The focus of our current research that we will be continuing is in areas relating to:

- increasing connectivity across barriers such as roads, and better understanding the impacts of sound and light from roads and development on mountain lion behavior,
- monitoring genetic status and inbreeding depression in at-risk populations, especially in the Santa Ana Mountains,
- contributing to genomics assessment of mountain lion subpopulations in California,
- monitoring sources of mortality and helping to develop and assess methods of mortality reduction,
- investigation different methods for estimating population density and abundance and determining the best methods for monitoring populations long term, as well as creating a specific monitoring and management plan for San Diego County,
- understanding mountain lion impacts on pronghorn antelope and other prey species, and establishing dietary baselines for mountain lions in northeastern California prior to expected colonization by wolves,
- investigating mountain lion-human interactions in peri-urban wilderness parks that are heavily used by both humans and mountain lions,
- reducing mountain lion depredation of livestock,
- increasing understanding of the impacts of habitat and development on disease and toxin exposure and health,
- investigating home range sizes, maternal behavior, and dispersal patterns in different landscape types.

We believe that the outcome of these efforts will continue to be, as in the past, enhancement of the sound information that is needed for good decisions relating to long term mountain lion conservation in California.