

**MONITORING THE DENSITY AND ABUNDANCE OF BLACK-TAILED DEER AND THEIR PRIMARY
LIMITING FACTORS TO INTRODUCE EFFECTIVE CONSERVATION STRATEGIES IN THE
MENDOCINO NATIONAL FOREST, CALIFORNIA**

STUDY PLAN 2024 – 2026

MENDOCINO COUNTY BLACKTAIL ASSOCIATION

Principal Investigators:

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EXECUTIVE SUMMARY

Black-tailed deer occupy the northwest portion of California and have traditionally received a large amount of interest from the public and resource management agencies both for their role as an essential element of healthy ecosystems, providing an important prey base for apex predators, and as a popular game species supporting local economies through important seasonal income. Current challenges to black-tailed deer population persistence in California include the negative effects of large-scale habitat degradation, habitat fragmentation, climate change, and predation pressures. Over the past several decades there has been an ongoing concern that black-tailed deer populations have been in decline prompting a call to action by the public to identify the causes and to take necessary measures to reverse the downward trend and stabilize the populations. As a crucial first step, the Mendocino County Blacktail Association and other conservation non-profit organizations requested that the California Department of Fish and Wildlife conduct a scientific field investigation to determine the rate and causes of the decline and to provide recommendations to reverse the trend. Results of the investigation revealed that the black-tailed deer in the Mendocino National Forest study area were indeed experiencing a steep decline as a result of low survival in all age classes due to the interaction of top-down (predation) and bottom-up (forage) effects negatively influencing population growth.

Following these findings and recommendations in a continued effort to reverse the substantiated downward trend and stabilize the populations, the Mendocino County Blacktail Association is initiating this current program with the goal of building a forest health and balanced wildlife model that will result in the best possible outcome for the California public and generations to follow. Steps to realize this goal consist of 1) identifying factors contributing to the alarming decline of the habitats and wildlife populations, 2) developing informed solutions and directions to address these declines, 3) implementing habitat enhancement projects and introducing conservation strategies in line with an ecosystem management approach, and 4) evaluating outcomes of these efforts to gauge success and guide adaptive management. The program will begin with the current project in the Mendocino National Forest with the effort continuing in all representative US Forest systems in northwestern California.

Objectives of the current project directly supporting this goal include:

- 1) Inventorying and monitoring the quantities, distributions, and conditions of deer ranges throughout the National Forest,
- 2) Inventorying and monitoring the abundances, densities, and distributions of black-tailed deer, black bears, mountain lions, and coyotes,
- 3) Evaluating the gross body condition and sex and age class composition of deer in the National Forest,
- 4) Monitoring deer fawn recruitment.

The successful completion of this project will require access to the public and private properties within the Mendocino National Forest, the purchase of 60 trail cameras and associated equipment, and time compensation and travel expenses for one Project Manager, one Wildlife Scientist, three Scientific Technicians, and one Volunteer Scientific Intern. The investment of time and funding to support the project will result in up-to-date information on the conditions of habitats and populations of deer, black bears, mountain lions, and coyotes in the Mendocino National Forest; information that is currently lacking but critical for informing and introducing effective conservation strategies to restore and maintain California black-tailed deer populations, apex predators, and their habitats into the future. The Mendocino Blacktail Association is actively seeking funding to support completion of this mission.