

**Meeting Date:** July 24, 2024

**Agenda Item No. 7**

**Agenda Item:** Wolf Population Estimation

**Bureau Chief Approval:** SR

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**Background:**

Since wolves were released in central ID by the U.S. Fish and Wildlife Service in 1995-96, a variety of methods have been used to monitor and estimate the state's wolf population. Since 2019, the Department has used a statewide remote camera array to estimate wolf occupancy (distribution) and abundance (total number). The camera-based abundance estimation method was first developed in Idaho for use on ungulates through collaboration with the University of Montana. The methodology was then adapted for estimation of wolves. During spring 2023, Department staff deployed over 700 cameras statewide for wolf monitoring purposes that captured over 9 million pictures during the June-September deployment. The data from those pictures were used in a space-to-event model to estimate average wolf density within portions of the state categorized into three levels of wolf occupancy (low, medium, high). Those density estimates, combined with information on wolf habitat, were then used to estimate wolf abundance across the entire state. That methodology resulted in estimates of 1,545, 1,556, 1,543, and 1,337 wolves statewide during the summers of 2019, 2020, 2021, and 2022, respectively.

More recently, Department staff developed an alternative population estimation method that uses data from harvested wolves (genetic relatedness and age) to estimate population composition and abundance. Although this technique was developed recently, it uses data the Department has been collecting for years, allowing staff to estimate the wolf population in prior years. Staff will provide a detailed explanation of this new methodology, present estimates from both methods for 2023 and prior years, and discuss statewide wolf population dynamics and trajectory at the Commission meeting.

**Statutory Authority and/or Policy issues:**

The Commission is charged with administering wildlife policy, and through the Department, is responsible for preserving, protecting, perpetuating and managing the state's wildlife (Idaho Code 36-103). Abundance and population trend are important metrics monitored by the Department to assess population status and the effect of harvest seasons and other management actions.

**Public Involvement Process:**

The public is keenly interested in information on wolves, including population size and the affect wolves have on prey species and livestock. The Commission and the Department receive input from the public on wolves and wolf management throughout the year via social media, email, phone calls, public meetings and hearings, and other events.

**Justification:**

The information presented will aid Commissioners as they respond to requests, recommendations, or other input from the public and will aid staff in the assessment of wolf population status and effectiveness of management actions.

**Staff Recommendation:**

NA. This agenda item is for Commission information.