



## IDAHO FISH AND GAME GOLDSHEET

### **July 2025 Commission Meeting**

**Agenda Item:** Wolf Population Estimation

**Presented by:** Matt Mumma

**Position/Title:** Wildlife Research Manager

**Agenda Item No.:** 7

**Supervisor Approval:** SR

### **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. From 2019-2023, the Department used a statewide array of about 700 remote cameras combined with a space-to-event model to estimate the state’s wolf abundance (total number). Those estimates suggested the state’s wolf population was stable during 2019-2021 and began to decline in 2022 and 2023 in alignment with Idaho Wolf Management plan objectives.

The Department’s ongoing research suggested camera-based, statewide wolf estimates were likely to become less reliable at lower wolf abundances. Therefore, Department staff began developing an alternative estimation method that uses data from harvested wolves (genetic relatedness and age) to estimate population composition and abundance. The model combines two established modeling approaches, close-kin mark-recapture and approximate Bayesian computation. Although this method was developed recently, it uses data that the Department had been collecting for years from harvested wolves, thereby allowing staff to use the new method to estimate wolf abundance in prior years. Last year at July’s Commission meeting, staff presented a detailed explanation of this new methodology and presented annual wolf abundance estimates from 2017–2023 produced by the new method. Those estimates were very similar (statistically equal) to previous estimates produced from remote cameras and showed the same general declining trend in the state’s wolf population, from about 1,500 wolves in 2019 to about 1,150 wolves in 2023.

Data has been collected since July 2024 to inform the next statewide estimate of wolf abundance for August 2024. Staff will provide an overview of the new methodology, present the August 2024 estimate, and discuss wolf harvest and population trajectory.

### **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 effect wolves have on prey species and livestock. The Commission and the Department



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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. Public also have the opportunity to comment on this topic at the July Commission public hearing.

**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 the effectiveness of management actions.

**Staff Recommendation:**

NA. This agenda item is for Commission information.