Meeting Date: January 23, 2019 **Agenda Item No.** 9

Agenda Item: Update About Using Cameras to Estimate Wildlife Populations **Bureau Chief Approval:** **TB**

Prepared by: Mark Hurley, Wildlife Research Manager

Background:

Estimating wildlife population size can be challenging, especially for animals living in dense forest or secretive animals such as carnivores. Although helicopter surveys serve us well in south Idaho, we have very few population estimates of white-tailed deer, mule deer, elk, or moose north of the Salmon River because of dense forest canopy. We also have no population estimates of wolves, bears, or mountain lions statewide. At the request of regional wildlife managers, staff has been developing techniques to estimate wildlife populations from trail cameras. Following promising results from a research project on elk, in cooperation with the University of Montana, staff has deployed cameras for population estimates throughout the state to validate results and evaluate the logistics of using these techniques at large scales.

We found that camera arrays are useful in all weather conditions, lighting conditions, and tree density, providing advantages over helicopter surveys in many areas. Tests have been completed or are underway for estimating population sizes of elk, mule deer, wolves, mountain lions, black bears, moose, and mountain goats with camera arrays. Staff will describe how the process works and detail the findings on applicability for different species and habitat conditions. Results will be presented on recent elk, mule deer, wolf, and mountain lion camera surveys.

Statutory Authority and/or Policy Issues:

The Idaho Fish and Game Commission administers state wildlife policy through supervision and management of the Department (Idaho Code 36-104).

Public Involvement Process:

Justification:

Finalizing camera survey techniques will provide managers with wildlife population estimates in areas of the state and for species that were not possible with existing techniques. These techniques can also be used in place of helicopter surveys to reduce both employee risk and survey cost.

Staff Recommendation:

No action is requested at this time. This agenda item is for Commission information.

Action Requested:

None